Annex 468

"Indigenous and Tribal Peoples' Rights over their Ancestral Lands and Natural Resources, Norms and Jurisprudence of the Inter-American Human Rights-System", OEA/Ser.L/V/ II. Doc. 56/09, *Inter-American Commission on Human Rights,* 30 December 2009, pages 78-80

Organization of American States

INTER-AMERICAN COMMISSION ON HUMAN RIGHTS

OEA/Ser.L/V/II.
Doc. 56/09
30 December 2009
Original: Spanish

INDIGENOUS AND TRIBAL PEOPLES' RIGHTS OVER THEIR ANCESTRAL LANDS AND NATURAL RESOURCES

Norms and Jurisprudence of the Inter-American Human Rights System

2010
Internet: http://www.cidh.org
E-mail: cidhoea@oas.org

OAS Cataloging-in-Publication Data

Derechos de los pueblos indígenas y tribales sobre sus tierras ancestrales y recursos naturales: Normas y jurisprudencia del sistema interamericano de derechos humanos = Indigenous and tribal people's rights over their ancestral lands and natural resources: Norms and jurisprudence of the Inter-American human rights system / [Inter-American Commission on Human Rights.]

p. ; cm. (OEA documentos oficiales ; OEA/Ser.L)(OAS official records ; OEA/Ser.L)

ISBN 978-0-8270-5580-3

1. Human rights--America. 2. Indigenous peoples--Civil rights--America. 3. Indigenous peoples--Land tenure--America.
4. Indigenous peoples--Legal status, laws, etc.--America. 5. Natural resources--Law and legislation--America. I. Inter-American Commission on Human Rights. II Series. III. Series. OAS official records ; OEA/Ser.L.

OEA/Ser.L/V/II. Doc.56/09

Document published thanks to the financial support of Denmark and Spain

Positions herein expressed are those of the Inter-American Commission on Human Rights and do not reflect the views of Denmark or Spain



Approved by the Inter-American Commission on Human Rights on December 30, 2009

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INDIGENOUS AND TRIBAL PEOPLES' RIGHTS OVER THEIR ANCESTRAL LANDS AND NATURAL RESOURCES
Norms and Jurisprudence of the Inter-American Human Rights System

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acts that might lead the agents of the State itself, or third parties acting with its acquiescence or its tolerance, to affect the existence, value, use or enjoyment of the property located in the geographic area occupied and used by the [respective] people,"[514] until such time as title is granted. The IACHR has also held that failure to adopt State measures to guarantee indigenous communities' rights over natural resources in accordance with their traditional use and occupation patterns is a violation of Articles 1.1 and 2 of the American Convention on Human Rights.[515] Granting concessions for the exploration or exploitation of natural resources in indigenous territories that have not been titled, demarcated or protected by the State, without complying with the requirements of prior consultation and other applicable safeguards, violates Articles 1 and 2 of the American Convention on Human Rights.[516]

B. The Right to Environmental Integrity

190. Although neither the American Declaration of the Rights and Duties of Man, nor the American Convention on Human Rights, contain express references to the protection of the environment, several fundamental rights require, as a necessary precondition for their enjoyment, a minimum environmental quality, and are profoundly affected by the degradation of natural resources. The IACHR has emphasized that there is a direct relationship between the physical environment in which persons live, and the rights to life, security and physical integrity: "The realization of the right to life, and to physical security and integrity is necessarily related to and in some ways dependent upon one's physical environment. Accordingly, where environmental contamination and degradation pose a persistent threat to human life and health, the foregoing rights are implicated."[517]

191. Both the American Declaration of the Rights and Duties of Man and the American Convention on Human Rights reflect a priority concern with the preservation of individual health and welfare, legal interests which are protected by the interrelation between the rights to life, security of person, physical, psychological and moral integrity, and health,[518] and thereby refer to the right to a healthy environment.

192. As explained by the IACHR,[519] the critical link between human beings' subsistence and the environment has been recognized in other international treaties and instruments that bind several States of the Americas, including the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights; the Amazon Cooperation Treaty; the World Charter for Nature; the Convention for the Protection of Flora, Fauna and Natural Scenic Beauties of America; the Rio Declaration on Environment and Development; and the Convention on Biological Diversity. Both ILO Convention No. 169 and the United Nations Declaration on the Rights of Indigenous Peoples incorporate specific provisions on the protection of the environment of indigenous territories.[520] At the Inter-American Level, the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San

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…continuation

out, Suriname must abstain from acts which might lead the agents of the State itself, or third parties acting with its acquiescence or its tolerance, to affect the existence, value, use or enjoyment of the territory to which the members of the Saramaka people are entitled, unless the State obtains the free, informed and prior consent of the Saramaka people.")

[514] IACHR, Report No. 40/04, Case 12.053, Maya Indigenous Communities of the Toledo District (Belize), October 12, 2004, par. 197 – Recommendation 2.

[515] IACHR, Arguments before the Inter-American Court of Human Rights in the case of Awas Tingni v. Nicaragua. Cited in: I/A Court H.R., *Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua. Merits, Reparations and Costs*. Judgment of January 31, 2001. Series C No. 79, par. 104(ñ).

[516] IACHR, Arguments before the Inter-American Court of Human Rights in the case of Awas Tingni v. Nicaragua. Cited in: I/A Court H.R., *Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua. Merits, Reparations and Costs*. Judgment of January 31, 2001. Series C No. 79, par. 104(ñ).

[517] IACHR, *Report on the Situation of Human Rights in Ecuador*. Doc. OEA/Ser.L/V/II.96, Doc. 10 rev.1, April 24, 1997.

[518] IACHR, *Report on the Situation of Human Rights in Ecuador*. Doc. OEA/Ser.L/V/II.96, Doc. 10 rev.1, April 24, 1997.

[519] IACHR, *Report on the Situation of Human Rights in Ecuador*. Doc. OEA/Ser.L/V/II.96, Doc. 10 rev.1, April 24, 1997.

[520] United Nations Declaration on the Rights of Indigenous Peoples, Article 29; ILO Convention No. 169, Arts. 4.1, 7.3-7.4.

Salvador), which has been signed or ratified by several countries in the region[521] and entered into force in November 1999, states in Article 11, on the right to a healthy environment: "1. Everyone shall have the right to live in a healthy environment and to have access to basic public services. // 2. The States Parties shall promote the protection, preservation, and improvement of the environment."

193. These provisions are directly relevant for the interpretation of the Inter-American human rights instruments, by virtue of the evolutionary and systematic interpretive approach which applies to the American Declaration of the Rights and Duties of Man and the American Convention on Human Rights. Thus, both the IACHR and the Inter-American Court have articulated a set of State obligations related to the preservation of an environmental quality which allows for the enjoyment of human rights. State members of the OAS must prevent the degradation of the environment in order to comply with their human rights obligations in the framework of the Inter-American system.

194. In relation to indigenous and tribal peoples, the protection of the natural resources that are present in ancestral territories, and of such territories' environmental integrity, is necessary to secure certain fundamental rights of their members, such as life, dignity, personal integrity, health, property, and privacy or information. These rights are directly affected whenever pollution, deforestation, contamination of waters, or other significant environmental damage occurs in ancestral territories. This implies that the State must undertake preventive and positive action aimed at guaranteeing an environment that does not compromise indigenous persons' capacity to exercise their most basic human rights. In this line, the IACHR has explained that the right to life protected by both the American Declaration of the Rights and Duties of Man and the American Convention on Human Rights "is not (…) limited to protection against arbitrary killing. States Parties are required to take certain positive measures to safeguard life and physical integrity. Severe environmental pollution may pose a threat to human life and health, and in the appropriate case give rise to an obligation on the part of a state to take reasonable measures to prevent such risk, or the necessary measures to respond when persons have suffered injury."[522]

195. The link between the protection of the environment and respect for human dignity has also been emphasized by the IACHR: "The American Convention on Human Rights is premised on the principle that rights inhere in the individual simply by virtue of being human. Respect for the inherent dignity of the person is the principle which underlies the fundamental protections of the right to life and to preservation of physical well-being. Conditions of severe environmental pollution, which may cause serious physical illness, impairment and suffering on the part of the local populace, are inconsistent with the right to be respected as a human being."[523] The IACHR has also underlined the direct link between the preservation of environmental integrity and access to livelihood sources; citing the World Charter for Nature, it has held that "mankind is a part of nature and life depends on the uninterrupted functioning of natural systems which ensure the supply of energy and nutrients."[524]

196. The IACHR has further recognized the link between the protection of the environment and the right to health. In 1983, in its report on the situation of human rights in Cuba, the IACHR recommended that the State adopt specific measures to protect the environment in order to comply with its obligations appurtenant to the right to health, explaining that a healthy environment is essential for a healthy population, and noting that factors such as water provision, basic sanitation and hygiene services, and waste management bear an important impact in this regard.[525]

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[521] As of 2010, the Protocol had been ratified or adhered to by Argentina, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname and Uruguay; and it had been signed by Chile, Dominican Republic, Haiti, and Venezuela.

[522] IACHR, *Report on the Situation of Human Rights in Ecuador*. Doc. OEA/Ser.L/V/II.96, Doc. 10 rev.1, April 24, 1997.

[523] IACHR, *Report on the Situation of Human Rights in Ecuador*. Doc. OEA/Ser.L/V/II.96, Doc. 10 rev.1, April 24, 1997.

[524] IACHR, *Report on the Situation of Human Rights in Ecuador*. Doc. OEA/Ser.L/V/II.96, Doc. 10 rev.1, April 24, 1997.

[525] IACHR, *The Situation of Human Rights in Cuba – Seventh Report*. Doc. OEA/Ser.L/V/II.61, Doc. 29 - rev. 1, 4 October, 1983, pars. 1, 2, 41, 60, 61.

197. Effective protection of the natural resources present in indigenous and tribal territories requires that States guarantee their members the exercise of certain human rights of a procedural nature, most importantly, access to information, participation in decision-making, and access to justice. As explained by the IACHR, in contexts of harm or threat to the environment, "protection of the right to life and physical integrity may best be advanced through measures to support and enhance the ability of individuals to safeguard and vindicate those rights. The quest to guard against environmental conditions which threaten human health requires that individuals have access to: information, participation in relevant decision-making processes, and judicial recourse."[526] From this perspective, the guarantee and exercise of the human rights to participation, information and access to justice constitute necessary means to attain the ultimate objective of environmental preservation. As explained in the following sections, the scope of each one of these three rights in relation to the protection of the natural resources of indigenous or tribal territories has been developed in detail by Inter-American jurisprudence, in such a way that they constitute, in themselves, mandatory requirements for States.

C. The right to effective implementation of the existing legal standards

198. Authorities have the duty, as part of the rule of law, to implement the national and international environmental protection standards that the State has enacted or accepted; this positive obligation of States is part of their general obligation to implement and enforce their own laws in order to protect the human rights of all persons, including indigenous or tribal peoples and their members. States must adopt measures to ensure that recognition of indigenous and tribal peoples' territorial rights in their constitutions and in the international treaties to which they are parties, is incorporated in a cross-cutting manner in their domestic law, including in relation to development projects.[527] At the same time they have the obligation to secure the effective implementation and enforcement of the provisions they adopt, and of the international human rights law provisions that bind them.

199. In its country reports, the IACHR has celebrated some legal advances in the constitutional recognition and legislative development of the right to prior consultation, in the process of socio-environmental monitoring of extractive activities, and in the sustainable development of industries such as the oil and gas sector. In this regard, it has expressed that it "hopes to obtain information on the implementation mechanisms for this legal framework and on their results in effectively safeguarding the right to prior consultation."[528]

200. As part of the generic obligation to implement and enforce legal measures, States must ensure compliance with their environmental and criminal law and regulations in relation to projects for the exploration and exploitation of natural resources in indigenous and tribal peoples' territories, and impose the sanctions foreseen in cases of non-compliance.[529] The IACHR has explained that, in the context of environmental pollution resulting from extractive activities, "the right to life and the protection of the physical integrity of the individual are norms of an imperative nature. Article 2 of the American Convention requires that where these rights are not adequately ensured through legislative and other means, the State must take the necessary corrective measures. Where the right to life, to health and to live in a healthy environment is already protected by law, the Convention requires that the law be effectively applied and enforced."[530]

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[526] IACHR, *Report on the Situation of Human Rights in Ecuador*. Doc. OEA/Ser.L/V/II.96, Doc. 10 rev.1, April 24, 1997.

[527] IACHR, *Access to Justice and Social Inclusion: The Road towards Strengthening Democracy in Bolivia*. Doc. OEA/Ser.L/V/II, Doc. 34, June 28, 2007, pars. 220, 297 – Recommendation 4.

[528] IACHR, *Follow-up Report - Access to Justice and Social Inclusion: The Road towards Strengthening Democracy in Bolivia*. Doc. OEA/Ser/L/V/II.135, Doc. 40, August 7, 2009, par. 160.

[529] IACHR, *Access to Justice and Social Inclusion: The Road towards Strengthening Democracy in Bolivia*. Doc. OEA/Ser.L/V/II, Doc. 34, June 28, 2007, par. 254.

[530] IACHR, *Report on the Situation of Human Rights in Ecuador*. Doc. OEA/Ser.L/V/II.96, Doc. 10 rev.1, April 24, 1997.

Annex 469

Report of the United Nations Conference on the Human Environment, General Principles for Assessment and Control of Marine Pollution, A/CONF.48/14/Rev.1, 16 June 1972, pages 73-74

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UNITED NATIONS
New York, 1973

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

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The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country or territory or of its authorities, or concerning the delimitation of its frontiers.

A/CONF.48/14/Rev.1

UNITED NATIONS PUBLICATION

Sales No. E.73.II.A.14

Price : $U.S. 4.00
(or equivalent in other currencies)

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Annex III

GENERAL PRINCIPLES FOR ASSESSMENT AND CONTROL OF MARINE POLLUTION[a]

A set of general principles for assessment and control of marine pollution should be accepted and endorsed by Governments.

The definition of marine pollution employed by the United Nations is "the introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of quality for use of sea water, and reduction of amenities".

The following principles were suggested by the Intergovernmental Working Group on Marine Pollution (November 1971) as guiding concepts representing a basis for general agreement.

(1) Every State has a duty to protect and preserve the marine environment and, in particular, to prevent pollution that may affect areas where an internationally shared resource is located.

(2) Every State should adopt appropriate measures for the prevention of marine pollution, whether acting individually or in conjunction with other States under agreed international arrangements.

(3) States should use the best practicable means available to them to minimize the discharge of potentially hazardous substances to the sea by all routes, including land-based sources such as rivers, outfalls and pipelines within national jurisdiction, as well as dumping by or from ships, aircraft and platforms.

(4) States should ensure that their national legislation provides adequate sanctions against those who infringe existing regulations on marine pollution.

(5) States should assume joint responsibility for the preservation of the marine environment beyond the limits of national jurisdiction.

(6) The States at higher levels of technological and scientific development should assist those nations which request it, for example by undertaking programmes, either directly or through competent agencies, intended to provide adequate training of the technical and scientific personnel of those countries, as well as by providing the equipment and facilities needed in areas such as research, administration, monitoring or surveillance, information, waste disposal, and others, which would improve their ability to discharge duties consisting of protecting the marine environment.

(7) States should discharge, in accordance with the principles of international law, their obligations towards other States where damage arises from pollution caused by their own activities or by organizations or individuals under their jurisdiction and should co-operate in developing prodecures for dealing with such damage and the settlement of disputes.

(8) Every State should co-operate with other States and competent international organizations with regard to the elaboration and implementation of internationally agreed rules, standards and procedures for the prevention of marine pollution on global, regional and national levels.

(9) States should join together regionally to concert their policies and adopt measures in common to prevent the pollution of the areas which, for geographical or ecological reasons, form a natural entity and an integrated whole.

(10) International guidelines and criteria should be developed, both by national Governments and through intergovernmental agencies, to provide the policy framework for control measures. A comprehensive plan for the protection of the marine environment should provide for the identification of critical pollutants and their pathways and sources, determination of exposures to these pollutants and assessment of the risks they pose, timely detection of undesirable trends, and development of detection and monitoring systems.

(11) Internationally agreed criteria and standards should provide for regional and local variations in the effects of pollution and in the evaluation of these effects. Such variables should also include the ecology of sea areas, economic and social conditions, and amenities, recreational facilities and other uses of the seas.

(12) Primary protection standards and derived working levels—especially codes of practice and effluent standards—may usefully be established at national levels, and in some instances, on a regional or global basis.

(13) Action to prevent and control marine pollution (particularly direct prohibitions and specific release limits) must guard against the effect of simply transferring damage or hazard from one part of the environment to another.

(14) The development and implementation of control should be sufficiently flexible to reflect increasing knowledge of the marine ecosystem, pollution effects, and improvements in technological means for pollution control and to take into account the fact that a number of new and hitherto unsuspected pollutants are bound to be brought to light.

(15) Every State should co-operate with other States and with competent international organizations with a view to the development of marine environmental research and survey programmes and systems and means for monitoring changes, in the marine environment, including studies of the present state of the oceans, the trends of pollution effects and the exchange of data and scientific information on the marine environment. There should be similar co-operation in the exchange of technological information on means of preventing marine pollution, including pollution that may arise from offshore resource exploration and exploitation.

(16) International guidelines should also be developed to facilitate comparability in methods of detection and measurement of pollutants and their effects.

(17) In addition to its responsibility for environmental protection within the limits of its territorial sea, a coastal State also has responsibility to protect adjacent areas of the environment from damage that may result from activities within its territory.

(18) Coastal States should ensure that adequate and appropriate resources are available to deal with pollution incidents resulting from the exploration and exploitation of seabed resources in areas within the limits of their national jurisdiction.

(19) States should co-operate in the appropriate international forum to ensure that activities related to the exploration and exploitation of the seabed and the ocean floor beyond the limits of national jurisdiction shall not result in pollution of the marine environment.

(20) All States should ensure that vessels under their registration comply with internationally agreed rules and standards relating

[a] Excerpt from document A/CONF.48/8, para. 197.

to ship design and construction, operating procedures and other relevant factors. States should co-operate in the development of such rules, standards and procedures, in the appropriate international bodies.

(21) Following an accident on the high seas which may be expected to result in major deleterious consequences from pollution or threat of pollution of the sea, a coastal State facing grave and imminent danger to its coastline and related interests may take appropriate measures as may be necessary to prevent, mitigate, or eliminate such danger, in accordance with internationally agreed rules and standards.

(22) Where there is a need for action by or through international agencies for the prevention, control or study of marine pollution, existing bodies, both within and outside the United Nations system, should be utilized as far as possible.

(23) States should assist one another, to the best of their ability, in action against marine pollution of whatever origin.

Annex 470

Report of the Secretary General, Protection of global climate change for present and future generations, Progress achieved in the implementation of resolution 44/207 on protection of global climate for present and future generations of mankind, A/45/696/ADD.1, 8 November 1990

UNITED
NATIONS

A

General Assembly

Distr.
GENERAL

A/45/696/Add.1
8 November 1990

ORIGINAL: ENGLISH

Forty-fifth session
Agenda item 81

PROTECTION OF GLOBAL CLIMATE FOR PRESENT AND FUTURE GENERATIONS OF MANKIND

Progress achieved in the implementation of resolution 44/207 on protection of global climate for present and future generations of mankind

Report of the Secretary-General

Addendum

The final statement of the Scientific/Technical sessions of the Second World Climate Conference (annex II) and the Ministerial Declaration of the Conference (annex III) are reproduced in the present addendum to the report of the Secretary-General.

ANNEX II

Final statement of the Second World Climate Conference
Scientific/Technical sessions

FOREWORD

The Second World Climate Conference was convened in Geneva, Switzerland, from 29 October to 7 November 1990, under the sponsorship of the World Meteorological Organization; the United Nations Environment Programme; the United Nations Educational, Scientific and Cultural Organization and its Intergovernmental Oceanographic Commission; the Food and Agriculture Organization of the United Nations and the International Council of Scientific Unions. This statement was adopted by the participants in the scientific and technical sessions from 29 October to 3 November 1990, on the basis of the presentations at the Conference, the deliberations of task groups of participants organized to address various specific issues, and plenary discussions involving all participants. The scientific and technical sessions involved 747 participants from 120 countries.

The Conference discussed the results of the first decade of work under the World Climate Programme (WCP), the First Assessment Report of the Intergovernmental Panel on Climate Change (August 1990) and the development of the International Geosphere-Biosphere Programme (IGBP) and other relevant global programmes. In particular, the Conference considered the role, priorities, and programme structure for the future development of the World Climate Programme.

SUMMARY STATEMENT

1. Climate issues reach far beyond atmospheric and oceanic sciences, affecting every aspect of life on this planet. The issues are increasingly pivotal in determining future environmental and economic well-being. Variations of climate have profound effects on natural and managed systems, the economies of nations and the well-being of people everywhere. A clear scientific consensus has emerged on estimates of the range of global warming which can be expected during the twenty-first century (para. B). If the increase of greenhouse gas concentrations is not limited, the predicted climate change would place stresses on natural and social systems unprecedented in the past 10,000 years.

2. At the First World Climate Conference in 1979, nations were urged "to foresee and to prevent potential man-made changes in climate that might be adverse to the well-being of humanity". The Second World Climate Conference concludes that, notwithstanding scientific and economic uncertainties, nations should now take steps towards reducing sources and increasing sinks of greenhouse gases through national and regional actions, and negotiation of a global convention on climate change and related legal instruments. The long-term goal should be to halt the build-up of greenhouse gases at a level that minimizes risks to society and natural ecosystems. The remaining uncertainties must not be the basis for deferring societal responses to these risks. Many of the actions that would reduce risk are also desirable on other grounds.

3. A major international observational and research effort will be essential to strengthen the knowledge-base on climate processes and human interactions, and to provide the basis for operational climate monitoring and prediction.

PART I. MAIN CONCLUSIONS AND RECOMMENDATIONS

A. Greenhouse gases and climate change

1. Emissions resulting from human activities are substantially increasing atmospheric concentrations of the greenhouse gases. These increases will enhance the natural greenhouse effect, resulting on average in an additional warming of the Earth's surface. The Conference agreed that this and other scientific conclusions set out by the IPCC reflect the international consensus of scientific understanding of climate change. Without actions to reduce emissions, global warming is predicted to reach 2 to 5 degrees C over the next century, a rate of change unprecedented in the past 10,000 years. The warming is expected to be accompanied by a sea level rise of 65 cm $\pm$ 35 cm by the end of the next century. There remain uncertainties in predictions, particularly in regard to the timing, magnitude and regional patterns of climate change.

2. Climate change and sea level rise would seriously threaten low-lying islands and coastal zones. Water resources, agriculture and agricultural trade, especially in arid and semi-arid regions, forests, and fisheries are especially vulnerable to climate change. Climate change may compound existing serious problems of the global mismatch between resources, population and consumption. In many cases the impacts will be felt most severely in regions already under stress, mainly in developing countries.

3. Global warming induced by increased greenhouse gas concentrations is delayed by the oceans; hence, much of the change is still to come. Inertia in the climate system due to the influence of the oceans, the biosphere and the long residence times of some greenhouse gases means that climate changes that occur may persist for centuries.

4. Natural sources and sinks of greenhouse gases are sensitive to a change in climate. Although many of the response or feedback processes are poorly understood, it appears likely that, as climate warms, these feedbacks will lead to an overall increase rather than a decrease in greenhouse gas concentrations.

5. The historical growth in emissions has been a direct consequence of the increase of human population, rising incomes, the related exploitation of fossil fuels by industrialized societies and the expansion of agriculture. Under "Business-as-Usual" assumptions,* it is projected that emissions will continue to grow in the future as a consequence of a projected doubling of energy consumption in the first half of the twenty-first century and an expected doubling of population

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* "Business-as-Usual" assumes that few or no steps are taken to limit greenhouse gas emissions. Energy use and clearing of tropical forests continue and fossil fuels, in particular coal, remain the world's primary energy source. The Montreal Protocol comes into effect but without strengthening and with less than 100 per cent compliance.

by the latter half. As a result, the effect of human-induced greenhouse gas concentrations on the Earth's radiation balance would by 2025 correspond to a doubling of carbon dioxide unless remedial actions are taken.

6. Over the last decade, emissions of carbon dioxide (CO_2) contributed 55 per cent of the increased radiative forcing produced by greenhouse gases from human activities. The CFCs contributed about 24 per cent of the past decade's changes, and methane 15 per cent, with the balance due to other greenhouse gases. With controls on CFCs under the Montreal Protocol, the relative importance of CO_2 emissions will increase, provided the substitutes for CFCs have minimal greenhouse warming potential. Some 75 per cent of total CO_2 emissions have come from the industrialized countries.

7. The above emissions can be expected to change the planet's atmosphere and climate, and a clear scientific consensus has been reached on the range of changes to be expected. Although this range is large, it is prudent to exercise, as a precautionary measure, actions to manage the risk of undesirable climate change. In order to stabilize atmospheric carbon dioxide concentrations by the middle of the twenty-first century at about 50 per cent above pre-industrial concentrations, a continuous world-wide reduction of net carbon dioxide emissions by 1 to 2 per cent per year starting now would be required. The Intergovernmental Panel on Climate Change (IPCC) also considered three other emissions scenarios, which would not lead to stabilization of CC_2 concentrations in the twenty-first century. A 15-20 per cent reduction in methane emissions would stabilize atmospheric concentrations of that gas.

8. This Conference concludes that technically feasible and cost-effective opportunities exist to reduce CO_2 emissions in all countries. Such opportunities for emissions reductions are sufficient to allow many industrialized countries to stabilize CO_2 emissions from the energy sector and to reduce these emissions by at least 20 per cent by 2005. The measures include increasing the efficiency of energy use and employing alternative fuels and energy sources. As additional measures to achieve further cost-effective reductions are identified and implemented, even greater decreases in emissions would be achieved in the following decades. In addition, reversing the current net losses in forests would increase storage of carbon. The economic and social costs and benefits of such measures should be urgently examined by all nations. An internationally co-ordinated assessment should be undertaken through the IPCC.

9. Countries are urged to take immediate actions to control the risks of climate change with initial emphasis on actions that would be economically and socially beneficial for other reasons as well. Nations should launch negotiations on a convention on climate change and related legal instruments without delay and with the aim of signing such a convention in 1992.

B. Use of climate information in assisting sustainable social and economic development

Climate data, analyses, and eventually climate predictions, can contribute substantially to enhancing the efficiency and security of economic and developmental activities in evironmentally sustainable ways. These benefits are particularly important in food and wood production, water management, transportation, energy planning and production (including assessment of potential resources of biomass, hydropower, solar and wind energy), urban planning and design, human health and safety, combating of drought and land degradation, and tourism. This requires both data on the climate system, and its effective application. Data acquisition, collection, management and analysis must be more vigorously supported in all countries and special assistance provided to developing countries through international co-operation. Transfer of techniques for applying climate information should be accelerated through more widespread use of software (e.g. CLICOM) for readily available personal computers and other means. Further development of methods for predicting short-term variations in climate and the environmental and social impacts should be vigorously pursued. These advances would provide enormous economic and other welfare benefits in coping with droughts, prolonged rain, and periods of severe hot and cold weather. Such predictions will require major steps forward in ocean-atmosphere-biosphere observing systems. Much greater efforts are also needed to increase involvement in these fields by developing countries, especially through increased education and training.

C. Priorities for enhanced research and observational systems

1. A consensus exists among scientists as summarized in the Report of Working Group I of the IPCC that climate change will occur due to increasing greenhouse gases. However, there is substantial scientific uncertainty in the details of projections of future climate change. Projections of future regional climate and climate impacts are much less certain than those on a global scale. These uncertainties can only be narrowed through research addressing the following priority areas:

Clouds and the hydrological cycle;

Greenhouse gases and the global carbon and biogeochemical cycles;

Oceans: physical, chemical and biological aspects; and exchanges with the atmosphere;

Paleo-climatic studies;

Polar ice sheets and sea ice;

Terrestrial ecosystems.

2. These subjects are being addressed by national programmes, the World Climate Research Programme and the International Geosphere-Biosphere Programme and other related international programmes. Increased national support and substantially increased funding of these programmes is required if progress on the necessary time scale is to be made in reducing the uncertainties.

3. Present observational systems for monitoring the climate system are inadequate for operational and research purposes. They are deteriorating in both industrialized and developing regions. Of special concern is the inadequacy of observation systems in large parts of the southern hemisphere.

4. High priority must be placed on the provision and international exchange of high-quality, long-term data for climate-related studies. Data should be available at no more than the cost of reproduction and distribution. A full and open exchange of global and other data sets needed for climate-related studies is required.

5. There is an urgent need to create a Global Climate Observing System (GCOS) built upon the World Weather Watch Global Observing System and the Integrated Global Ocean Service System and including both space-based and surface-based observing components. GCOS should also include the data communications and other infrastructure necessary to support operational climate forecasting.

6. GCOS should be designed to meet the needs for:

(a) Climate system monitoring, climate change detection and response monitoring, especially in terrestrial ecosystems

(b) Data for application to national economic development, and

(c) Research towards improved understanding, modelling and prediction of the climate system.

7. Such a GCOS would be based upon:

(1) An improved World Weather Watch Programme;

(2) The establishment of a global ocean observing system (GCOS) of physical, chemical and biological measurements;

(3) The maintenance and enhancement of monitoring programmes of other key components of the climate system, such as the distribution of important atmospheric constituents (including the Global Atmosphere Watch), changes in terrestrial ecosystems, clouds and the hydrological cycle, the Earth's radiation budget, ice sheets, and precipitation over the oceans.

8. The further development and implementation of the GCOS concept should be pursued, with urgency, by scientists, Governments and international organizations.

9. The impacts of climate variability on human socio-economic systems have provided major constraints to development. Climate change may compound these constraints. In semi-arid regions of Africa, drought episodes have been directly responsible for major human disasters. Research undertaken during the first decade of the WCP and through other international and national programmes has improved drought early warning systems, including FAO's Global Early Warning System, and increased the reliability of climate impact analyses. But much more remains to be done. Intensified efforts are required to refine further our ability to predict short-term climate variability, anticipate climate impacts, and identify rational strategies to mitigate or prevent adverse effects. The threat of climate change brings new challenges to the future well-being of people. This requires greater efforts to understand impacts of climate change. Mitigation and adaptation strategies are also essential. Immediate steps to be taken include:

(a) National and regional analyses of the impacts of climate variability and change on society, and study of the range of response and adaptation options available;

(b) Closer co-operation and communication among natural and social scientists, to ensure that climate considerations are accounted for in development planning;

(c) Significant increases in resources to carry out impact/adaptation studies.

10. Improvements in energy efficiency and non-fossil fuel energy technologies are of paramount importance, not only to reduce greenhouse gas emissions but to move to more sustainable development pathways. Such advances will require research and development, as well as technology transfer and co-development.

11. A specific initiative would create a network of regional, interdisciplinary research centres, located primarily in developing countries, and focusing on all of the natural science, engineering and social science disciplines required to support fully integrated studies of global change and its impacts and policy responses. The centres would conduct research and training on all aspects of global change and study the interaction of regional and global policies.

D. Public information

People need better information on the crucial role climate plays in development and the additional risks posed by climate change. Governments, intergovernmental and non-governmental organizations should give more emphasis to providing accurate public information on climate issues. The public information and education and training component in the WCP and IGBP must also be expanded.

PART II

Specific issues

1. Water

1.1 Among the most important impacts of climate change will be its effects on the hydrological cycle and water management systems, and through these, on socio-economic systems. Increases in incidence of extremes, such as floods and droughts, would cause increased frequency and severity of disasters.

1.2 The design of many costly structures to store and convey water, from large dams to small drainage facilities, is based on analyses of past records of climatic and hydrological parameters. Some of those structures are designed to last 50-100 years or even longer. Records of past climate and hydrological conditions may no longer be a reliable guide to the future. The design and management of both structural and non-structural water resource systems should allow for the possible effects of climate change.

1.3 Data systems and research must be strengthened to predict water resources impacts, detect hydrological changes, and improve hydrological parameterization in global climate models.

1.4 Existing and novel technologies, for more efficient use of water for irrigation, should be made available to developing countries in semi-arid zones.

2. Agriculture and food

2.1 Important uncertainties remain regarding the prediction of the magnitude and nature of potential impacts of changing climate and higher CO_2 levels on global food security. The potential impact on food production in developing countries, with more than half the world's population, could be more uncertain than recent reviews suggest.

2.2 High priority should therefore be given to research on the direct effects of rising CO_2 concentrations on food and fibre crop productivity and equal priority should be given to research on agricultural emissions so as to determine agriculture's present and potential role as a source of and sink for greenhouse gases, and to clarify the costs and possible trade-offs arising from limitation measures.

2.3 New or strengthened institutional mechanisms are required to upgrade natural resource inventories, research strategies and extension services to raise agricultural productivity and minimize emissions. These mechanisms should include collaborative programmes between FAO and international and national agencies with stress on interdisciplinary activities on food security and related topics.

3. Oceans, fisheries and coastal zones

3.1 The Earth's climate including shorter-term variations is influenced by the coupled atmosphere - ocean system. Coastal zones and their associated high biological productivity, including fisheries, are especially affected. Thus, an improved data base of oceanic parameters is considered indispensable for operational climate forecasting. It is recommended that a global ocean observing and data management system be developed for improving predictions of climate change. Research on the oceans will provide quantification of important feedback loops in climate processes. Observation and research on the El Niño - Southern Oscillation phenomena, on upwelling areas and on biological productivity of the open sea are also important.

3.2 Coastal zones, which are the source of most of the global fish catch, are especially susceptible to effects of global warming and sea level rise. Predicting the impact of changes would be of enormous benefit to the increasing number of people living in coastal areas. Thus, it is also recommended that a programme of coastal zone research and monitoring be established to identify the effects of climate change on the coast and coastal ecosystems, and to assess the vulnerability of various natural and managed ecosystems such as coral reefs, mangroves and coastal aquaculture.

3.3 Action should be taken now to develop coastal zone adaptation strategies and policies.

4. Energy

4.1 In order to stabilize atmospheric concentrations of greenhouse gases while allowing for growth in emissions from developing countries, industrialized countries must implement reductions even greater than those required, on average, for the globe as a whole. However, even where very large technical and economic opportunities have been identified for reducing energy-related greenhouses gas emissions, and even where there are significant and multiple benefits associated with these measures, implementation is being slowed and sometimes prevented by a host of barriers. These barriers exist at all levels - at the level of consumers, energy equipment manufacturers and suppliers, industries, utilities, and governments. Overcoming the barriers obstructing least-cost approaches to meeting energy demands will require responses from all parts of society - individual consumers, industry, governments, and non-governmental organizations.

4.2 Developing countries also have an important role in limiting climate change. Maintaining development as a principal objective, energy and development paths can be chosen that have the additional benefit of minimizing radiative forcing.

5. Land use and urban planning

Population growth, increasing urbanization, and competing demands for finite areas of arable land will produce increasingly severe problems of food supply, energy production, and water resources. Climate changes may exacerbate these problems in some regions. Prudent planning will require baseline analyses of land

use, quality and quantity of water resources, and the assessment of vulnerability of urbanized societies to environmental change. In particular, improved adaptation of urban areas to local climatic régimes needs to be achieved by more appropriate layouts and building densities, and improved building construction through modifications to building and planning regulations. Because conurbations make a major contribution to energy-related greenhouse gas emissions, the design and efficiency of all aspects of urban systems should be enhanced.

6. Health and human dimensions

6.1 The direct impact of climate change on people, their health and cultural heritage, could be severe. There is likely to be increased health inequity between peoples of developing and developed countries. Climatic change could result in increasing numbers of environmental refugees with associated increases of ill-health, disease and death among them.

6.2 Global warming is likely to shift the range of favourable conditions for certain pests and diseases, causing additional stresses on people, particularly those of the semi-arid tropics. It must be appreciated however that serious problems may arise in all parts of the world.

6.3 Research into how human behaviour contributes to and responds to climate change must have increased emphasis. Public awareness and education programmes are particularly essential in this regard.

7. Environment and development

7.1 Climate change, superimposed on population pressures, excessive consumption, and other stresses on the environment imperils the sustainability of socio-economic development throughout the world. In addition, slowing climate change will give countries more time to enhance their prospects for sustainable development. The developed countries need to reduce emissions and assist the developing countries to adopt new, clean technologies.

7.2 Climate change has such important implications for the sustainability of development that policy responses, including measures to reduce greenhouse gases, measures to reduce deforestation, and the commitment of financial and other resources, are justified for that reason alone. Economic policies, such as subsidies and trade restraints, can distort markets so they harm the environment and contribute to global warming and sea level rise. There is an imperative need for development policies that not only reduce global warming trends but also increase economic and social resilience.

8. Forests

While increasing forest cover can contribute to the slowing of global climate change, this is not the major cure for the problem.

Five priority actions are recommended:

(1) Assessing national opportunities to increase forest carbon storage commensurate with national resource development policies, developing an approach by 1992 and completing assessment by 1995.

(2) Managing the world's forests to optimize biomass and resultant carbon storage in addition to the maintenance of sustainable yields of forest products, biological diversity, water quality and the many other values that forests provide.

(3) Accelerating research to assess the added contribution that forests can make to atmospheric CO_2 reduction and the impacts of climate change on the world's forests.

(4) Designing and implementing international monitoring systems to determine conditions and changes in forest ecosystems in response to anticipated climate changes.

(5) Supporting the development of an international instrument on conservation and development of the world's forests linked with climate and biodiversity conventions.

PART III

Organizational and policy issues for international activities

1. The future structure of the World Climate Conference

1.1 The World Climate Conference should be broadened and closely co-ordinated with related programmes of other agencies in response to increased emphasis on the prediction of climate and its impacts.

1.2 The World Climate Data Programme, renamed the World Climate System Monitoring Programme, should be redefined to take into account new objectives.

1.3 Greater emphasis in the strengthened WCP (WCP-2) should be given to adaptation, mitigation and education, with adaptation and mitigation activities closely linked to the Impact Studies Programme (WCIP).

1.4 The World Climate Applications Programme should be renamed the World Climate Applications and Services Programme (WCASP) to reflect the need for intensifying efforts to provide climatological services to a wide variety of users. There should be strong interaction between WCIP and WCASP.

1.5 The organizational framework for international scientific research is in place, constituted by the WCRP, emphasizing the physical aspects, and the IGBP, covering bio-geochemical aspects.

1.6 Governments should establish national committees for the WCP to mobilize support for national activities and to co-ordinate efforts. The United Nations

agencies and ICSU should work towards ensuring regular contact and exchange of information with national committees.

1.7 The mechanism established for overall co-ordination of the WCP, involving meetings of the chairs of steering bodies for the various components, should be actively supported by WMO, and other United Nations bodies concerned and ICSU. Annual meetings of Executive Heads should consider their recommendations.

1.8 Restructuring and strengthening of the WCP will also be necessary to support new activities, such as the development of the proposed GCOS. The Conference recommended that a proposal for the new structure of WCP be formulated by the organizations involved, taking into account the above comments, and presented to the Eleventh World Meteorological Congress, May 1991, and at appropriate meetings of other participating organizations.

2. Special needs of the developing countries

2.1 As stated in the IPCC report, industrialized and developing countries have a common but differentiated responsibility for dealing with the problems of climate change. The problem is largely the consequence of past patterns of economic growth in the industrial countries. However, in future the much needed economic growth in the developing countries could play an important role in determining the rate of climate change.

2.2 Developing countries are being asked to participate in the alleviation of the legacy of environmental damage from prior industrialization. If they are to avoid the potentially disastrous course followed by industrialized countries in the past, they need to adopt modern technologies early in the process of development, particularly in regard to energy efficiency. They also must be full partners in the global scientific and technical effort that will be required. It is clear that developing countries must not go through the evolutionary process of previous industrialization but rather, must "leapfrog" ahead directly from a status of underdevelopment through to efficient, environmentally benign, technologies.

2.3 Although developing countries have collaborated in providing data, and participated to a degree in meetings and research, they have benefited to a lesser extent from the analyses developed from their contributions, and even less so from the applications derived therefrom.

2.4 Therefore, a massive and sustained flow of scientific and technological expertise towards the development of the intellectual resources, technical and institutional capacity of the developing countries is a necessary complement to the efforts of those countries.

2.5 Developing countries should be assisted to build up their capabilities

- To monitor, assess and apply climate information;

- To prepare inventories of greenhouse gases emissions and future emissions projections;

- To identify impacts of potentially global warming;

- To prepare cost estimates and priorities for response strategies to adapt and mitigate problems posed by climate change;

- To participate in the World Climate Programme.

o The mechanisms of the transfer of technology and provision of technical assistance and co-operation to developing countries should take into account considerations such as the need for preferential and assured access, intellectual property rights, the environmental soundness of such technology and the financial implications.

o Taking note that industry plays a significant role in the development and transfer of science and technology, efforts by industry to promote further the development and transfer of environmentally sound technologies should be encouraged, and policies to encourage such efforts should be formulated.

o Additional financial resources will have to be channelled to developing countries for those activities which contribute both to limiting greenhouse gas emissions and/or adapting to any adverse effects of climate change, and promoting economic development. Areas for co-operation and assistance could include the efficient use of energy, land use planning, forest management, soil and water conservations, strengthening of observational systems and scientific and technological capabilities.

3. Co-operation in international research

3.1 The existing and planned research projects of the WCRP and the IGBP address the highest priority scientific issues related to the understanding and prediction of climate variability and change.

3.2 These programmes should be implemented completely and rigorously. It is particularly important that adequate funding, including long-term funding commitments, be provided.

3.3 In view of the progress made in climate research, it is now timely to proceed to the detailed design of an operational global climate observing system (sect. C, paras. 5-8), together with the data communications and other infrastructure needed to support operational climate forecasting. Governments should enter into early discussions aimed at international co-operation in operational climate forecasting.

4. Co-ordinated international activities and policy development

4.1 The Conference endorsed the three streams of international activity:

a. Global measurement and research efforts through the WCP, IGBP, and other related international programmes;

b. Assessment functions of a continuing IPCC to support negotiation of and providing technical input to a Convention;

c. Development of a Convention on Climate Change.

It is essential that all parties to a Convention and related legal instruments should, as part of their obligations, be required to participate fully in the free exchange and flow of information necessary for technical input to the convention. Such a convention should include a technical annex to provide for:

- International co-operation in research, systematic observation and exchange of related information;

- Adjustments based on up-dates of scientific knowledge;

- Strengthening national scientific and environmental capabilities of developing countries.

4.2 The development of policy regarding climate change requires on the part of policy makers an understanding of the underlying science and a weighing of the scientific uncertainties associated with the prediction of climate change and its likely impacts. An important aspect of future work is therefore a continued dialogue between scientists and policy makers.

4.3 The United Nations Conference on Environment and Development (Brazil 1992) provides a valuable opportunity to relate the above three themes to the other environment/development issues and objectives being examined by the Conference. It is therefore essential that the three streams should interact effectively with the Conference.

4.4 It is proposed that the sponsoring agencies for the SWCC consider the possibility of holding a Third World Climate Conference at an appropriate time about the year 2000.

ANNEX III

Ministerial Declaration of the Second World Climate Conference

PREAMBLE

1. We, the Ministers and other representatives from 137 countries and from the European Communities, meeting in Geneva from 6 to 7 November 1990 at the Second World Climate Conference, declare as follows:

2. We note that while climate has varied in the past and there is still a large degree of scientific uncertainty, the rate of climate change predicted by the Intergovernmental Panel on Climate Change (IPCC) to occur over the next century is unprecedented. This is due mainly to the continuing accumulation of greenhouse gases, resulting from a host of human activities since the industrial revolution, hitherto particularly in developed countries. The potential impact of such climate change could pose an environmental threat of an up to now unknown magnitude; and could jeopardize the social and economic development of some areas. It could even threaten survival in some small island States and in low-lying coastal, arid and semi-arid areas.

3. We appreciate the work of the World Climate Programme (WCP) during the past decade which has improved understanding of the causes, processes and effects of climate and climate change. We also congratulate the IPCC, established by the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO) on its First Assessment Report on Climate Change. It has identified causes and possible effects and strategies to limit and adapt to climate change, and in the light of the United Nations General Assembly resolutions, has identified possible elements for inclusion in a framework convention on climate change.

4. Recognizing climate change as a common concern of mankind, we commit ourselves and intend to take active and constructive steps in a global response, without prejudice to sovereignty of States.

I. GLOBAL STRATEGY

5. Recognizing that climate change is a global problem of unique character and taking into account the remaining uncertainties in the field of science, economics and response options, we consider that a global response, while ensuring sustainable development 1/ of all countries, must be decided and implemented without further delay based on the best available knowledge such as that resulting from the IPCC assessment. Recognizing further that the principle of equity and the common but differentiated responsibility of countries should be the basis of any

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1/ Statement of sustainable development as agreed at the fifteenth session of UNEP Governing Council (annex II, UNEP/GC 15/L.37).

global response to climate change, developed countries must take the lead. They must all commit themselves to actions to reduce their major contribution to the global net emissions and enter into and strengthen co-operation with developing countries to enable them to adequately address climate change without hindering their national development goals and objectives. Developing countries must, within the limits feasible, taking into account the problems regarding the burden of external debt and their economic circumstances, commit themselves to appropriate action in this regard. To this end, there is a need to meet the requirements of developing countries, that adequate and additional financial resources be mobilized and the best available environmentally-sound technologies be transferred expeditiously on a fair and most favourable basis.

II. POLICY CONSIDERATIONS FOR ACTION

6. We reaffirm that, in order to reduce uncertainties, to increase our ability to predict climate and climate change on a global and regional basis, including early identification of as yet unknown climate-related issues, and to design sound response strategies, there is a need to strengthen national, regional and international research activities in climate, climate change and sea level rise. We recognize that commitments by Governments are essential to sustain and strengthen the necessary research and monitoring programmes and the exchange of relevant data and information, with due respect to national sovereignty. We stress that special efforts must be directed to the areas of uncertainty as identified by the IPCC.

We maintain that there is a need to intensify research on the social and economic implications of climate change and response strategies. We commit ourselves to promoting the full participation of developing countries in these efforts. We recognize the importance of supporting the needs of the World Climate Programme, including contributions to the WMO Special Fund for Climate and Atmospheric Environmental Studies. The magnitude of the problem being addressed is such that no nation can tackle it alone and we stress the need to strengthen international co-operation. In particular, we invite the 11th Congress of the World Meteorological Organization, in the formulation of plans for the future development of the World Climate Programme, to ensure that the necessary arrangements are established in consultation with UNEP, UNESCO (and its IOC), FAO, ICSU and other relevant international organizations for effective co-ordination of climate and climate change related research and monitoring programmes. We urge that special attention be given to the economic and social dimensions of climate and climate change research.

7. In order to achieve sustainable development in all countries and to meet the needs of present and future generations, precautionary measures to meet the climate challenge must anticipate, prevent, attack, or minimize the causes of, and mitigate the adverse consequences of, environmental degradation that might result from climate change. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent such environmental degradation. The measures adopted should take into account different socio-economic contexts.

8. The potentially serious consequences of climate change, including the risk for survival in low-lying and other small island States and in some low-lying coastal, and arid and semi-arid areas of the world, give sufficient reasons to begin by adopting response strategies even in the face of significant uncertainties.

Such response strategies include phasing out the production and use of CFC's, efficiency improvements and conservation in energy supply and use, appropriate measures in the transport sector, sustainable forest management, afforestation schemes, developing contingency plans for dealing with climate-related emergencies, proper land use planning, adequate coastal zone management, review of intensive agricultural practices and the use of safe and cleaner energy sources with lower or no emissions of carbon dioxide, methane, nitrous oxide and other greenhouse gases and ozone precursors, paying special attention to new and renewable sources.

Further actions should be pursued in a phased and flexible manner on the basis of medium- and long-term goals and strategies and at the national, regional or global level, taking advantage of scientific advances and technological developments to meet both environmental and economic objectives.

9. We note that per capita consumption patterns in certain parts of the world along with a projected increase in world population are contributing factors in the projected increase in greenhouse gases.

10. We agree that the ultimate global objective should be to stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with climate.

11. We stress, as a first step, the need to stabilize, while ensuring sustainable development of the world economy, emissions of greenhouse gases not controlled by the Montreal Protocol on Substances that Deplete the Ozone Layer. Contributions should be equitably differentiated according to countries' responsibilities and their level of development. In this context, we acknowledge efforts already undertaken by a number of countries to meet this goal.

12. Taking into account that the developed world is responsible for about three quarters of all emissions of greenhouse gases, we welcome the decisions and commitments undertaken by the European Community with its Member States, Australia, Austria, Canada, Finland, Iceland, Japan, New Zealand, Norway, Sweden, Switzerland, and other developed countries to take actions aimed at stabilizing their emissions of CO_2, or CO_2 and other greenhouse gases not controlled by the Montreal Protocol, by the year 2000 in general at 1990 level, yet recognizing the differences in approach and in starting-point in the formulation of the above targets. We also acknowledge the initiatives of some other developed countries which will have positive effects on limiting emissions of greenhouse gases. We urge all developed countries to establish targets and/or feasible national programmes or strategies which will have significant effects on limiting emissions of greenhouse gases not controlled by the Montreal Protocol.

We acknowledge, however, that those developed countries with as yet relatively low energy consumption (measured on a per capita or other appropriate basis) which

can be reasonably expected to grow, and some countries with economies in transition, may establish targets, programmes and/or strategies that accommodate socio-economic growth, while improving the energy efficiency of their economic activities.

13. We urge developed countries, before the 1992 United Nations Conference on Environment and Development, to analyse the feasibility of and options for, and, as appropriate in light of these analyses, to develop programmes, strategies and/or targets for a staged approach for achieving reductions of all greenhouse gas emissions not controlled by the Montreal Protocol, including carbon dioxide, methane and nitrous oxide, over the next two decades and beyond.

14. We recommend that in the elaboration of response strategies, over time, all greenhouse gases, sources and sinks be considered in the most comprehensive manner possible and also that limitation and adaptation measures be addressed.

15. We recognize that developing countries have as their main priority alleviating poverty and achieving social and economic development and that their net emissions must grow from their, as yet, relatively low energy consumption to accommodate their development needs. Narrowing the gap between the developed and the developing world would provide a basis for a full partnership of all nations and would assist the developing countries in dealing with the climate change issue. To enable developing countries to meet incremental costs required to take the necessary measures to address climate change and sea-level rise, consistent with their development needs, we recommend that adequate and additional financial resources should be mobilized and best available environmentally sound technologies transferred expeditiously on a fair and most favourable basis. Developing countries also should, within the limits feasible, take action in this regard.

16. The specific difficulties of those countries, particularly developing countries, whose economies are highly dependent on fossil fuel production and exportation, as a consequence of action taken on limiting greenhouse gas emissions, should be taken into account.

17. We recommend that consideration should be given to the need for funding facilities, including the proposed World Bank/UNEP/UNDP Global Environmental Facility, a clearing-house mechanism and a new possible international fund composed of adequate additional and timely financial resources and institutional arrangements for developing countries; taking into account existing multilateral and bilateral mechanisms and approaches. Such funding should be related to the implementation of the framework convention on climate change and any other related instruments that might be agreed upon. In the mean time, developed countries are urged to co-operate with developing countries to support immediate action in addressing climate change including sea-level rise without imposing any new conditionality on developing countries.

18. We recommend further that resources be assessed. Such assessments, to be conducted as soon as possible, should include country studies and mechanisms to meet the financing needs identified, taking note of the approaches developed under the Montreal Protocol.

19. Financial resources channelled to developing countries should, inter alia, be directed to:

(i) Promoting efficient use of energy, development of lower and non-greenhouse gas emitting energy technologies and paying special attention to safe and clean new and renewable sources of energy;

(ii) Arranging expeditious transfer of the best available environmentally sound technology on a fair and most favourable basis to developing countries and promoting rapid development of such technology in these countries;

(iii) Co-operating with developing countries to enable their full participation in international meetings on climate change;

(iv) Enhancing atmospheric, oceanic and terrestrial observational networks, particularly in developing countries, to facilitate conducting research, monitoring and assessment of climate change and the impact on those countries;

(v) Rational forest management practices and agricultural techniques which reduce greenhouse gas emissions;

(vi) Enhancing the capacity of developing countries to develop programmes to address climate change, including research and development activities and public awareness and education.

Funding should also be directed to the creation of regional centres to organize information networks on climate change in developing countries.

20. Appropriate economic instruments may offer the potential for achieving environmental improvements in a cost-effective manner. The adoption of any form of economic or regulatory measures would require careful and substantive analyses. We recommend that relevant policies make use of economic instruments appropriate to each country's socio-economic conditions in conjunction with a balanced mix of regulatory approaches.

21. We note that energy production and use account for nearly half of the enhanced radiative forcing resulting from human activities and is projected to increase substantially in the absence of appropriate response actions. We recognize the promotion of energy efficiency as the most cost-effective immediate measure, in many countries, for reducing energy-related emissions of carbon dioxide, methane, nitrous oxide and other greenhouse gases and ozone precursors, while other safe options such as no or lower greenhouse gas emitting energy sources should also be pursued. These principles apply to all energy sectors. Transport energy use attracts special attention of many of us in the light of its role in many developed countries and of its expected importance in many developing countries.

22. We recognize that there is no single quick-fix technological option for limiting greenhouse gas emissions. However, we are convinced that technological

innovation as well as individual and social behaviour and institutional adaptations is a key element of any long-term strategy that deals with climate change in a way that meets the goal of sustainable development. Therefore, we urge all countries, the developed countries in particular, to intensify their efforts and international co-operation in technological research, development and dissemination of appropriate and environmentally sound technologies, including the reassessment and improvement of existing technologies and the introduction of new technologies.

23. We urge that environmentally sound and safe technologies be utilized by all sectors in all countries to the fullest extent possible and further urge all countries, developed and developing, to identify and take effective measures to remove barriers to the dissemination of such technologies. To this end, the best available environmentally sound and safe technologies should be transferred to developing countries expeditiously on a fair and most favourable basis.

24. We note that the conservation of the world's forests in their role as reservoirs of carbon along with other measures are of considerable importance for global climatic stability, keeping in mind the important role of forests in the conservation of biological diversity and the protection of soil stability and of the hydrological system. We recognize the need to reduce the rate of deforestation in consonance with the objective of sustained yield development and to enhance the potential of the world's forests through improved management of existing forests and through vigorous programmes of reforestation and afforestation, and to support financially the developing countries in this regard through enhanced and well-co-ordinated international co-operation including strengthening Tropical Forest Action Plan (TFAP) and International Tropical Timber Organization (ITTO). We recommend that the protection and management of boreal, temperate, sub-tropical and tropical forest ecosystems must be well-co-ordinated and preferably compatible with other possible types of action related to reduction of emission of greenhouse gases, rational utilization of biological resources, provision of financial resources, and the need for more favourable market conditions for timber and timber products. The developing countries should be able to realize increased revenue from these forests and forest products.

25. We also recognize that forests and forest products play a key social and economic role in many nations and communities. We recognize that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

26. We recommend that appropriate precautionary and control measures be developed and implemented at regional, subregional and country levels as appropriate to counter the increasing degradation of land, water, genetic and other productive resource bases by drought, desertification and land degradation.

Observatories on climate and climate change and observatories on ecosystems should be encouraged to work together on drought risks consequences.

Studies must be undertaken on drought and desertification.

We stress that stepped-up financial and scientific contributions be provided to facilitate these efforts.

27. We recommend that similar measures be adopted to address the particular problems and needs, including funding, of low-lying coastal and small vulnerable island countries, some of whose very existence is placed at risk by the consequences of climate change.

III. GLOBAL FRAMEWORK CONVENTION ON CLIMATE CHANGE

28. We call for negotiations on a framework convention on climate change to begin without delay after a decision is taken by the forty-fifth session of the General Assembly of the United Nations recommending ways, means and modalities for further pursuing these negotiations. Taking note of all the preparatory work, particularly the recommendations adopted on 26 September 1990 by the Ad Hoc working group of government representatives and regional economic integration organizations to prepare for negotiations on a framework convention on climate change, we urge all countries and regional economic integration organizations to join in these negotiations and recognize that it is highly desirable that an effective framework convention on climate change, containing appropriate commitments, and any related instruments as might be agreed upon on the basis of consensus, be signed in Rio de Janeiro during the United Nations Conference on Environment and Development. We welcome the offer of the Government of the United States of America to host the first negotiating meeting.

29. We recommend that such negotiations take account of the possible elements compiled by the IPCC, and that the framework convention on climate change be framed in such a way as to gain the support of the largest possible number of countries while allowing timely action to be taken. We reaffirm our wish that this convention contain real commitments by the international community. We stress, given the complex and multi-faceted nature of the problem of climate change, the need for new and innovative solutions including the need to meet the special needs of developing countries.

30. We also welcome the invitations of Thailand and Italy to host workshops, respectively on the feasibility of forestry options, and on all technologies for energy production and use and their transfer to developing countries.

31. We believe that a well-informed public is essential for addressing and coping with as complex an issue as climate change, and the resultant sea-level rise, and urge countries, in particular, to promote the active participation at the national and when appropriate, regional levels of all sectors of the population in addressing climate change issues and developing appropriate responses. We also urge relevant United Nations organizations and programmes to disseminate relevant information with a view to encouraging as wide a participation as possible.

Annex 471

Final report prepared by Mrs Fatma Zohra Ksentini, Special Rapporteur, Human Rights and Environment, E/CN.4/Sub.2/1994/9, 6 July 1994, pages 58-61

UNITED NATIONS

E

Economic and Social Council

Distr.
GENERAL

E/CN.4/Sub.2/1994/9
6 July 1994

ENGLISH
Original: ENGLISH/FRENCH

COMMISSION ON HUMAN RIGHTS
Sub-Commission on Prevention
of Discrimination and
Protection of Minorities
Forty-sixth session
Item 4 of the provisional agenda

REVIEW OF FURTHER DEVELOPMENTS IN FIELDS WITH WHICH THE SUB-COMMISSION HAS BEEN CONCERNED

HUMAN RIGHTS AND THE ENVIRONMENT

Final report prepared by Mrs. Fatma Zohra Ksentini, Special Rapporteur

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CHAPTER VI. CONCLUSIONS AND RECOMMENDATIONS

A. Conclusions

235. The problems of the environment are no longer being viewed exclusively from the angle of the pollution affecting the industrialized countries but seen rather as a worldwide hazard threatening the planet and the whole of mankind, as well as future generations. There is now a universal awareness of the widespread, serious and complex character of environmental problems, which call for adequate action at the national, regional and international levels.

236. The realization of the global character of environmental problems is attested to by the progress made in understanding the phenomena that create hazards for the planet, threaten the living conditions of human beings and impair their fundamental rights. These phenomena concern not only the natural environment (the pollution of water, air and atmosphere, seas, oceans and rivers; depletion of the ozone layer; climatic changes) and natural resources (desertification, deforestation, soil erosion, disappearance of certain animal species; deterioration of flora and fauna; exhaustion of non-renewable resources, etc.) but also populations and human settlements (housing, town planning, demography, etc.) and the rights of human beings (the human environment, living, working and health conditions; conditions for the exercise and enjoyment of fundamental rights).

237. By means of a global approach to these phenomena that takes in their multidimensional aspects, including their human aspects, it has become possible to move from environmental law to environmental rights, proclaimed by the 1972 Stockholm Declaration which states in its Principle 1 that "Man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations".

238. Since then, a large number of national, regional and international instruments have been drawn up which have strengthened the legal bases of environmental rights and stressed the intrinsic link that exists between the preservation of the environment, development and the promotion of human rights.

239. The Special Rapporteur has endeavoured, within the limits of the means at her disposal, to collect the basic legal instruments underpinning environmental rights and to clarify the relationship existing between the preservation of the environment and human rights. She has received from governments, the United Nations bodies concerned, specialized agencies and intergovernmental and non-governmental organizations, studies, communications, information and comments that have proved very useful for her report.

240. This research has revealed universal acceptance of the environmental rights recognized at the national, regional and international levels.

241. At the national level, over 60 constitutions brought to the attention of the Special Rapporteur contain specific provisions relating to the protection of the environment; some of them recognize explicitly the right to a

satisfactory environment, entailing corresponding duties towards the State and its institutions and rights and/or obligations for individuals and organs of society. An increasing number of national legislations have developed the framework of laws and regulations needed to ensure the right to a satisfactory environment and have spelt out the substantive content of that right and the ways and means whereby it may be exercised, including remedies to safeguard its effective enjoyment and afford guarantees for its implementation. A few constitutions provide, in the section dealing with human rights and fundamental freedoms, for the right to a healthy environment and the guarantees attaching thereto, including in some cases the right of recourse and petition. Some countries have provided for the punishment of offences against the environment and have introduced into national legislation the principle of compensation for the victims as well as reparation of the damage. There is moreover a trend towards developing and strengthening the means of preventing damage to the environment.

242. At the regional and universal level, recognition of the right to a satisfactory environment as a human right is reflected both in the related normative developments and in the "environmental" concern that informs the activities of human rights bodies. Although only a few instruments of a binding legal character have established a direct link between the environment and human rights, the regional and international human rights bodies are developing a practice whereby the procedural bases for enforcing the right to a satisfactory environment are becoming more firmly established and the validity of complaints of human rights violations based on ecological considerations is being recognized. These bodies do not dismiss out of hand the idea that ecological factors may hinder the enjoyment of the human rights enshrined in the instruments in their care. On the other hand, those same bodies and more particularly the European Court of Human Rights have, in certain cases, legitimated restrictions on the use of private property in the public interest based on concern for the need to preserve the environment.

243. This review of the activities of human rights bodies and other fields relevant for the study has made it possible to outline the scope of environmental rights. Many human rights are suited to being applied from an ecological perspective, whether those rights are political, civil, social, economic or cultural, and whether they are exercised individually or collectively. The Special Rapporteur has drawn up a list of those rights, albeit a non-exhaustive one and has attempted to assess the effects of the environment or enjoyment of those rights.

244. Her analysis of the ways in which the right to a satisfactory environment relates to other human rights gave the Special Rapporteur occasion to stress the close link existing between that right and the right to development. The fact is that the affirmation of "ecological rights" attaching to recognition of the right to a satisfactory environment cannot be understood if we disregard the problems bound up with development both nationally and internationally. It also rests on the indivisibility and interdependence of all human rights.

245. In this context, it is important to bear in mind the consensual aspects which form the basis of the world partnership for sustainable development and serve to reaffirm the principle of the right of peoples to self-determination,

the duty to protect the environment and natural resources of peoples suffering oppression, domination and occupation, and the sovereign right of States to exploit their own resources in accordance with their environmental policy, while ensuring that the activities conducted by them or under their supervision do not damage the environment.

246. The world partnership establishes a responsibility which, while shared is differentiated on the basis of the "polluter pays" principle, the special responsibility of industrialized countries, and the problems and needs of developing countries. It also calls for the channelling of new and additional resources to the developing countries and the equitable settlement of those countries' foreign debt. The United Nations General Assembly has called for innovative measures in this respect, such as the conversion of debt into shareholdings and into ecological investment. It has also been generally recognized that the examination of national and international strategies for sustainable and ecologically sound development should not be used as a pretext for imposing new conditions on the granting of funding or development aid or to create unjustified trade barriers.

247. At the same time, the worldwide partnership creates solemnly acknowledged obligations towards present and future generations which involve corresponding rights for the recipients - individuals, groups and peoples. The State and other parties to development, including the international agencies, have the duty, among others, to refrain from activities damaging to the environment and to take positive measures for preserving it. It is recognized in particular that there is a need for studies of the impact of development projects on the environment and on the fundamental rights of the populations concerned, who are entitled to be duly informed of, and closely associated with, the decision-making process, either directly or through their freely elected representatives. Finally, it is acknowledged that vulnerable groups should be protected from the negative consequences of the application of structural adjustment programmes and of economic reforms undertaken by many countries. The Special Rapporteur notes with interest the significant changes beginning to occur within the international financing agencies, with a view to assuming responsibility for these questions.

248. Environmental damage has direct effects on the enjoyment of a series of human rights, such as the right to life, to health, to a satisfactory standard of living, to sufficient food, to housing, to education, to work, to culture, to non-discrimination, to dignity and the harmonious development of one's personality, to security of person and family, to development, to peace, etc.

249. In this context, it should be stressed how vulnerable certain peoples, populations, groups or categories of persons are to ecological hazards and natural disasters whether caused by man or generated by a state of war and conflict. The Special Rapporteur has pointed out that the poor and disadvantaged, minority groups, women, children, migrant workers and their families, refugees and displaced persons are generally those most affected and least protected. The transfer of toxic substances and waste to the developing countries also gives cause for serious concern.

250. The Special Rapporteur noted indigenous peoples' special ties with the land and the environment, and their particular vulnerability to ecological

hazards. She stresses the need for effective protection of their rights and calls for the rapid adoption of the draft declaration finalized by the Working Group on Indigenous Populations.

251. Conversely, human rights violations in their turn damage the environment. This is true of the right of peoples to self-determination and their right to dispose of their wealth and natural resources, the right to development, to participation, to work and to information, the right of peaceful assembly, freedom of association, freedom of expression, etc.

252. In the light of the foregoing, the Special Rapporteur is of the view that effective implementation of the right to a satisfactory environment cannot be dissociated from the twinned efforts to preserve the environment and ensure the right to development. Nor can it be achieved without resolute action to ensure the enjoyment of all human rights.

253. In order to give practical expression to the right to a satisfactory environment, there is a need for development strategies that are directed towards the implementation of a substantive part of that right (the right to development, to life, to health, to work, etc.). These must go hand in hand with the promotion of the related procedural aspects (due process, right of association and of assembly, freedom of expression, right of recourse, etc.).

254. Implementation of the right to a satisfactory environment calls for commitment and participation on the part of everyone at all levels, beginning with the family unit, where environmental education starts. It depends on the existence of effective national legal remedies; local administrative or other courts, national institutions and ombudsmen provide guarantees of the protection of this right. The Special Rapporteur notes with satisfaction the development of such recourse guarantees in many countries.

255. The right to a satisfactory environment is also a right to prevention which gives a new dimension to the right to information, education and participation in decision-making. The right to restitution, indemnification, compensation and rehabilitation for victims must also be seen from the angle of the special responsibility that would follow from the absence of preventive measures.

256. The right to a satisfactory environment is also a right to the "conservation" of nature for the benefit of future generations. This "futuristic" dimension restores to human rights their original purpose, as embodied in the Charter of the United Nations and the Universal Declaration of Human Rights of 1948. It foreshadows a "new public order" of human rights which would set acceptable limitations on those rights in the general interest while entailing corresponding duties on the part both of the public authorities and of individuals, associations and other components of civil society.

257. To conclude her study, the Special Rapporteur wishes to cite the argument of Mr. A. Kiss that international law must be based on values, the fundamental values of this century being human rights and the environment. She shares this view and notes that these values are intrinsically bound up with development seen as a worldwide phenomenon resting on various pillars such as

Annex 472

Twelfth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur, A/CN.4/475/ and Add.1, 13 May 1996, pages 29-36

Document:-

A/CN.4/475 & Corr.1 and Add.1 & Corr.1

Twelfth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur

Topic:

International liability for injurious consequences arising out of acts not prohibited by international law

Extract from the Yearbook of the International Law Commission:-

1996, vol. II(1)

Downloaded from the web site of the International Law Commission
(http://www.un.org/law/ilc/index.htm)

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INTERNATIONAL LIABILITY FOR INJURIOUS CONSEQUENCES ARISING OUT OF ACTS NOT PROHIBITED BY INTERNATIONAL LAW

[Agenda item 4]

DOCUMENT A/CN.4/475 and Add.1*

Twelfth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur

[*Original: Spanish*]
[*13 May 1996*]

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CHAPTER I

Prevention

1. It will be recalled that, given the Commission's reluctance to accept the idea of prevention *ex post*, which refers to measures adopted after an incident has occurred, the Special Rapporteur included in his tenth report a section[1] explaining, as clearly as possible, his belief that that type of prevention existed in international practice.[2] It contained comments[3] on two proposed texts,[4] the first of which would be inserted as paragraph (*e*) of article 2 (Use of terms) and would define what are referred to therein as "response measures", which are nothing other than measures for prevention *ex post*.

2. The text read as follows:

> "'Response measures' means any reasonable measures taken by any person in relation to a particular incident to prevent or minimize transboundary harm.
>
> The harm referred to in subparagraph … includes the cost of preventive measures wherever taken, as well as any further harm that such measures may have caused."

3. This method was used to avoid an impasse in case the Commission continued to oppose the use of the term "prevention" for *ex post* measures. However, the Special Rapporteur pointed out that calling them "response measures" would mean using a term that differed from the term used in all the relevant conventions—namely, "preventive measures"—and would pose serious problems.

4. It would seem that the Commission was receptive to the arguments put forward and that it now accepts the idea of prevention *ex post*. If this is the case, the Special Rapporteur suggests that the Commission consider that text at its current session and that it agree on a formulation that covers both measures to prevent incidents (prevention *ex ante*) and measures to prevent further harm once an incident has occurred (prevention *ex post*), such as:

> "(*e*) 'Preventive measures' means:
>
> "(i) Measures to prevent or minimize the risk of incidents;
>
> "(ii) Measures taken in relation to an incident which has already occurred to prevent or minimize the transboundary harm it may cause."

Then, a subparagraph could be inserted under letter (*g*) of the same article, after the definition of harm, stating that:

> *"(g) The harm referred to in the preceding para*graph includes the cost of preventive measures under paragraph (*e*) (ii), as well as any further harm that such measures may have caused."

[1] *Yearbook ... 1994*, vol. II (Part One), document A/CN.4/459, chap. I, in particular p. 133, paras. 7–18.

[2] The Special Rapporteur argued that prevention always took place "prior" to the incident and that prevention *ex post* was a contradiction in terms. This type of prevention is intended to avoid incidents, but there is another type of prevention intended to keep the *effects of an incident* from reaching their maximum potential; in other words, measures to minimize the effects of an incident. Measures of this type have been unanimously considered to be preventive, both in theory and in all conventions dealing with liability for acts not prohibited by law.

[3] *Yearbook ... 1994*, vol. II (Part One), document A/CN.4/459, chap. I, p. 133, paras. 19–21.

[4] Ibid., para. 22.

CHAPTER II

Principles

5. At its preceding session, the Commission adopted the principles set forth in articles A to D[5] (6 to 9 of the numbering to be proposed below, chap. IV), but was unable to consider the principle of non-discrimination because the latter had not yet been examined by the Drafting Committee. It would be useful if the Committee could take a decision on that principle at the current session so that the relevant chapter may be provisionally completed.

[5] For the text of the draft articles provisionally adopted by the Commission, see *Yearbook ... 1995*, vol. II (Part Two), pp. 89 et seq.

Chapter III

Liability

6. Two complete reports of the Special Rapporteur have yet to be considered: the tenth report,[6] which proposes a liability regime for cases of transboundary harm, and the eleventh,[7] which concerns harm to the environment. The Commission expressed preliminary views on both reports, but decided to use the time it would have spent considering them to enable the Drafting Committee to examine some of the articles on the subject appearing on its agenda; the Committee ultimately adopted those articles.

7. Thus, in the Special Rapporteur's view, it is time to deal with the crux of the matter; namely, liability. Although it is true that harm to the environment is an interesting item, it is also true that, basically, the Commission need only determine what this category comprises, since it has already agreed in principle that the concept of harm should include harm to the environment.

8. Having exhausted the issue of prevention, at least for the moment, the Commission should abide by its decision made at its forty-fourth session, in 1992, to the effect that:

> … the topic should be understood as comprising both issues of prevention and of remedial measures. However, prevention should be considered first; only after having completed its work on that first part of the topic would the Commission proceed to the question of remedial measures. Remedial measures in this context may include those designed for mitigation of harm, restoration of what was harmed and compensation for harm caused.[8]

9. The Commission cannot postpone this unavoidable task, at the risk of showing negligence with respect to the General Assembly's mandate, particularly since the Commission itself recognized, at its forty-seventh session, that the vital task of identifying the activities to be included in the draft articles would "depend on the provisions on prevention which have been adopted by the Commission *and the nature of the obligations on liability which the Commission will be developing**".[9]

10. What the Commission must determine at its current session are *the main features of the regime it wishes to apply to liability for acts not prohibited by international law*. In the present report there is an explanation of the regime set out in the schematic outline of the previous Special Rapporteur, Mr. Quentin-Baxter, which was annexed to his fourth report,[10] and of the regimes proposed in the sixth[11] and tenth reports of the current Special Rapporteur. These are the three options which have been proposed thus far and on which the Commission has yet to take a decision. What the Special Rapporteur suggests for this session is that the Commission simply look at the main points of these liability regimes. To this end, he has indicated, for each regime, the articles and paragraphs of the relevant reports which contain essential information. Members of the Commission could also read the rest of the proposed articles in each report on liability to have an idea of how each of the regimes under consideration could operate.

11. It is suggested, then, that the Commission focus on the annex to the fourth report of the previous Special Rapporteur (which could be supplemented, if desired, by a perusal of the entire report); chapters IV and V of the sixth report of the current Special Rapporteur, particularly articles 21, 23 and 28 to 31, which define the regime, and the tenth report, in particular the careful consideration of the whole of chapter II and of sections A, B and C of chapter III, and of the articles included therein.

12. In the following analysis, the Special Rapporteur will discuss only basic concepts in the body of the text; clarifications and complementary concepts will be found in the footnotes.

A. The schematic outline

13. The regime set forth in the schematic outline is only a rough sketch, but the Commission will find in it the information it needs in order to take a decision and in order to develop it further, if it so desires. Some of the articles of the sixth report might also be helpful in order to have an idea of how this part of the schematic outline could be developed.

14. The regime applies to activities carried out in the territory or under the control of one State which *give or may give rise* to loss or injury to persons or things within the territory or in places under the control of another State. In other words, the activities of article 1, proposed by the current Special Rapporteur, would be covered by the outline and the article's provisions would apply to them.

1. Prevention

15. *Breach of obligations regarding prevention does not entail any sanction* according to section 2, paragraph 8. In other words, there is no liability for wrongful act in that draft.

2. Liability

16. If transboundary harm arises and there is no prior agreement between the States concerned regarding their rights and obligations, these rights and obligations shall be determined in accordance with the schematic outline. There is an obligation to negotiate such rights and obligations in good faith.

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[6] *Yearbook ... 1994*, vol. II (Part One), p. 133, document A/CN.4/459.

[7] *Yearbook ... 1995*, vol. II (Part One), p. 51, document A/CN.4/468.

[8] See *Yearbook ... 1992*, vol. II (Part Two), p. 51, para. 345.

[9] See *Yearbook ... 1995*, vol. II (Part Two), chap. V, p. 89, para. 408 *in fine*.

[10] *Yearbook ... 1983*, vol. II (Part One), pp. 201 et seq., document A/CN.4/373.

[11] *Yearbook ... 1990*, vol. II (Part One), p. 83, document A/CN.4/428 and Add.1.

17. Section 4 establishes in paragraph 2 that the acting State—that is to say the State of origin—shall make reparation to the affected State.[12] The amount of the reparation due is determined by a number of factors.[13]

18. The general ideas of the outline are, therefore, as follows:

(*a*) Recommendations to States regarding the prevention of incidents due to activities "which give or may give rise to" transboundary harm. In particular, that they should draw up a legal regime between the States concerned which would apply to the activity;

(*b*) State liability for transboundary harm caused by dangerous activities;[14]

(i) Nature of the liability. *Sine delicto*, since the acts are not prohibited by international law;

(ii) Attenuation of liability: although, in principle, the innocent victim should not bear the injury, the nature and amount of the reparation must be negotiated in good faith between the parties, taking into consideration a series of factors which may lessen the amount.

B. The regime of the sixth report

19. The draft articles proposed by the Special Rapporteur in the sixth report[11] constitute an almost complete draft of the topic.

1. Prevention[15]

20. Draft article 18 strips the obligations regarding prevention of their "hard" nature, since it does not give the affected State the right to institute proceedings.[16] Although more detailed, the draft articles set forth in the sixth report do not depart in any significant way from the schematic outline as far as prevention is concerned.

2. Liability

21. There is State liability *sine delicto* for transboundary harm which translates, here again, into a simple obligation to negotiate the determination of the legal consequences of the harm with the affected State or States. The States concerned must take into account that, in principle, the harm must be *compensated in full*, even though the State of origin may, in certain cases, seek a reduction of the compensation payable by it (draft art. 23).[17]

22. Thus far, the draft articles do not depart from the general lines of the schematic outline. The Special Rapporteur thought, however, that there seemed to be an undeniable trend in international practice towards introducing into specific activities civil liability for transboundary harm and that he should, therefore, present that possibility to the Commission.[18]

23. For that reason, in addition to State liability which is exercised through the diplomatic channel, the draft articles provide for what is called the domestic channel, that is to say, remedy for victims through the domestic courts of law.[19] The aim was merely to establish *a minimum regulation* of the domestic channel.[20]

24. To summarize, the general thrust of the regime proposed in the sixth report is as follows:

[12] This obligation, however, is subject to a condition that did not find any support in the Commission: that the reparation for injury of that kind or character should be in accordance with the *shared expectations* of the States concerned. For the concept and effect of such expectations, see section 4, paras. 2–4, of the schematic outline.

[13] These include the so-called "shared expectations", the principles spelled out in section 5 of the schematic outline—*inter alia*, that insofar as may be consistent with these articles, an innocent victim should not be left to bear his loss or injury—the reasonableness of the conduct of the parties and the preventive measures of the State of origin. The factors outlined in section 6 (some of which were adopted in draft outline 20 proposed by the current Special Rapporteur) also play a role as do the matters referred to in section 7, which remained open for consideration by the Commission; however, they are very vague, given the preliminary nature of the schematic outline.

[14] Although the scheme (sect. 7, para. II.1) leaves open the possibility that by a decision of the parties to the negotiation there may be another decision as to where primary and residual liability should lie, and whether the liability of some actors should be channelled through others.

[15] The provisions regarding notification of affected States, the provision of information concerning the dangerous activity and consultations with them regarding a regime, further develop and refine the concepts set forth in the schematic outline.

[16] Unless, of course, such action is provided for in another agreement between the same parties. In any event, there would be a form of sanction for failure to comply. If, at some point subsequent to such failure to comply, there were to be appreciable transboundary harm, the sanction would be that in such a case, the State which did not comply could not invoke the provisions of draft article 23 which enable it to obtain favourable adjustments of the compensation.

[17] For example, if the State of origin took precautionary measures solely for the purpose of preventing transboundary harm, it could ask for a reduction of the compensation. In order to illustrate the above, take the example of an industry located on the border, upstream on a successive international river, which discharges waste into the water and, consequently, affects only the territory downstream but not the course of the river situated in its own territory.

[18] In the international practice considered, such civil liability *could coexist with State liability only insofar as the latter was residual*, in other words when neither the operator nor his insurance could cover the full amount of the compensation fixed. In such cases, the State would intervene (nuclear conventions, see the tenth report of the Special Rapporteur (footnote 6 above), chap. II, sect. B, paras. 24–29 inclusive). Subsequently, in draft articles such as the ones relating to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (United Nations, *Treaty Series*, vol. 1673, p. 57), the obligation of the State to complete the compensation was made contingent on the condition that the harm would not have been caused had the State not failed to comply (indirect causality).

[19] In order for the domestic channel to coexist with the diplomatic channel, two provisions are needed: (*a*) one to permit the affected State to initiate the diplomatic claim without having to exhaust all internal remedies of the State of origin (draft art. 28, para. 1), because otherwise the domestic channel would be compulsory and it would be appropriate to use the diplomatic channel only in the cases provided for under general international law, for example where there had been a denial of justice; and (*b*) one to prevent the State of origin from claiming immunity from jurisdiction (draft art. 28, para. 2) because if it were to do so, the domestic channel would lead nowhere. A claim of immunity from jurisdiction may only be made in respect of enforcement of a judgement.

[20] As explained in the sixth report of the Special Rapporteur (footnote 11 above), pp. 98–99, paras. 62–63. For example, it did not establish that the liability had to be *sine delicto* (causal, strict) but referred, as far as the basic rules are concerned, to the applicable national law, that is to say, that of the court that ultimately had jurisdiction. It was suggested that States parties should, through their national legislation, give their courts jurisdiction to deal with claims of the type permitted under draft article 28, paragraph 2, that they should give affected States or individuals or legal entities access to their courts (draft art. 29, para. 1) and that they should provide in their legal systems for remedies which permit prompt and adequate compensation (draft art. 29, para. 2).

1. Recommendations to States regarding the prevention of incidents and above all the drawing up of a legal regime between States to govern the activity;
2. State liability for transboundary harm caused by dangerous activities:
   2.1 Nature of the liability: *sine delicto* (strict, causal) where the acts giving rise to liability are not prohibited by international law;
   2.2 Attenuation of liability: although, in principle, an innocent victim should not have to bear the injury caused, the nature and amount of the reparation must be negotiated in good faith between the parties, taking into consideration a series of factors which may diminish the amount;
3. In addition to the diplomatic channel where one State deals with another State, provision is made for a domestic channel available to individuals or private entities and to the affected State:
   3.1 Once a channel has been selected for a specific claim, the other channel may not be used for the same claim;
   3.2 Character of the liability: to be established by the domestic legislation of the State of the court having jurisdiction.

25. As the preventive measures are not compulsory, failure to take such measures does not give rise to liability and therefore there is no State liability for a wrongful act. Consequently, there cannot be both responsibility for a wrongful act and at the same time responsibility *sine delicto* in respect of any single incident.

26. The Special Rapporteur points out two features of the system proposed in his sixth report. The first is that if the affected State knows that its subjects may use the domestic channel it may be very reluctant to use the diplomatic channel. The second is that the determination of the type of liability is left to domestic law. This latter feature can easily be changed by including in the draft articles a provision for liability *sine delicto* of the person in charge.

C. The regime of the tenth report

27. It should be recalled that:

(*a*) As the Special Rapporteur said before, the Commission categorically rejected the suggestion that the obligations concerning prevention should be "soft". Accordingly, violation of such obligations gives rise to State liability for a wrongful act;

(*b*) This makes these draft articles extremely unusual and creates many difficulties, since State liability for violation of its obligations in respect of prevention must necessarily coexist with liability *sine delicto* for payment of compensation for injury caused.

28. If compensation for an injury caused followed only from a wrongful act, that is to say as a result of failure by the State to comply with its obligations concerning prevention, *nothing in the draft articles would relate to the liability for acts not prohibited by international law*. Innocent victims would then be compelled to bear the *onus probandi* and would be left without any remedy when the injury was caused by an act that was not prohibited as a consequence of a dangerous (but lawful) activity. The liability regime, which is becoming increasingly widespread in the world in respect of such activities: that of liability *sine delicto*, would not be applied to compensation for injury caused by dangerous activities. Thus, the area which prompted the inclusion of the item on the Commission's agenda, namely, that of liability for injurious consequences arising out of acts not prohibited by international law, would be totally unprotected.

29. There is no doubt whatsoever that compensation for transboundary harm arising out of acts not prohibited must be subjected to some form of liability *sine delicto*. In the previous Special Rapporteur's schematic plan this type of liability is assigned to the State although it is considerably diminished because it is subject to negotiations between the States concerned and to possible readjustments. The sixth report of the current Special Rapporteur follows the same solution and also adds the possibility that the injured may resort to domestic channels.[21]

30. To summarize, the system proposed in the tenth report is as follows:

1. Obligations to prevent incidents are the responsibility of the State. There is State liability for failure to comply with these obligations;
2. Nature of State liability: for wrongful act, with the characteristics and consequences of international law (art. X);
3. Payment of compensation for transboundary harm caused is the responsibility of the operator. Nature of such liability: sine delicto.[22]

D. The options available to the Commission

31. (*a*) The decisions already taken by the Commission regarding prevention leave no other alternative than State liability for wrongful acts;

(*b*) As to some form (whether attenuated or not) of liability *sine delicto*, the Commission has no choice but to introduce it into the draft articles, unless it wishes to renounce the mandate given to it by the General Assembly (international liability for the injurious consequences of acts not prohibited by international law). It can assign liability to the State (schematic outline of the previous Special Rapporteur), to the operator (tenth report of the current Special Rapporteur) or, depending on what the

[21] See in particular chapter II of the tenth report (footnote 6 above), pp. 134 et seq.

[22] Thus, the State is responsible for all the consequences of the wrongful act (cessation, satisfaction, guarantee of non-repetition (see tenth report of the Special Rapporteur (footnote 6 above), pp. 136 et seq., paras. 31–41), but not for compensation which is always the responsibility of private operators, even if they coexist with the failure of the State to comply with its obligations regarding prevention. The operator's liability is *sine delicto*, since it arises from acts not prohibited by international law and redresses the material harm caused by the dangerous activity under draft article 1.

actor chooses, to the State or operator (sixth report) with some possible changes of detail;

(*c*) The residual liability of the State can be resolved once the two previous issues have been settled.

Chapter IV

Order of the draft articles

32. The Commission observed that the draft articles were not presented in order and that the various partial numberings of the articles adopted by the Drafting Committee, together with the proposed articles (designated by letters) for the chapter on liability, could give rise to confusion.

33. At its forty-eighth session (1988) and at its forty-ninth session (1989), the Commission sent to the Drafting Committee the first ten draft articles, which included two different versions of chapters I (General provisions) and II (Principles): one is that of the fourth report of the Special Rapporteur,[23] and the other is that of his fifth report.[24] This set of articles does not present a problem in terms of renumbering, because the draft articles deal with the same content in both versions, although their wording differs.

34. The draft articles which may be adopted in relation to liability may be numbered consecutively (beginning with article 21) following the last article adopted thus far by the Commission.

[23] *Yearbook ... 1988*, vol. II (Part One), pp. 251 et seq., document A/CN.4/413.

[24] *Yearbook ... 1989*, vol. II (Part One), pp. 131 et seq., document A/CN.4/423.

Draft articles[*,5]

Chapter I

GENERAL PROVISIONS

Article 1. Scope of the present articles

The present articles apply to activities not prohibited by international law and carried out in the territory or otherwise under the jurisdiction or control of a State which involve a risk of causing significant transboundary harm through their physical consequences.

Article 2. Use of terms

For the purposes of the present articles:

(*a*) "Risk of causing significant transboundary harm" encompasses a low probability of causing disastrous harm and a high probability of causing other significant harm;

(*b*) "Transboundary harm" means harm caused in the territory of or in other places under the jurisdiction or control of a State other than the State of origin, whether or not the States concerned share a common border;

(*c*) "State of origin" means the State in the territory or otherwise under the jurisdiction or control of which the activities referred to in article 1 are carried out;

[(*d*) Definition of "affected State" (fourth and fifth reports);][25]

[(*e*) Definition of "preventive measures" (tenth[6] or eleventh report,[7] depending on the Commission's decision);]

[(*f*) Definition of "harm" (eighth report[26]), including environmental harm (eleventh report);]

[(*g*) Inclusion of the cost of ex-post preventive measures as part of reparation for harm.]

[Article 3. Attribution (fourth report)/ *Assignment of obligations* (fifth report)*]*

[Conditions for the assignment of the obligations imposed by the present articles (fourth and fifth reports).][27]

[Article 4. Relationship between the present articles and other international agreements][*]

[Relationship between the present articles and other international agreements to which the States parties to the present articles are also parties concerning the

[*] The articles adopted so far by the Commission are reproduced below without square brackets.

[25] In the fourth report, the proposed text of article 2 (*e*) is as follows:

> "'Affected State' means the State under whose jurisdiction persons or objects, or the use or enjoyment of areas, are or may be affected."

In the fifth report, the text is as follows:

> "'Affected State' means the State in whose territory or under whose jurisdiction persons or objects, the use or enjoyment of areas, or the environment, are or may be appreciably affected."

[26] *Yearbook ... 1992*, vol. II (Part One), pp. 59 et seq., document A/CN.4/443, appendix, sect. C.

[27] In the fourth report, article 3 (Attribution), reads as follows:

> "The source State shall have the obligations imposed on it by the present articles, provided that it knew or had means of knowing that an activity involving risk was being, or was about to be, carried out in areas under its jurisdiction or control."

In the fifth report, article 3 (Assignment of obligations) reads as follows:

> "1. The State of origin shall have the obligations established by the present articles, provided that it knew or had means of knowing that an activity referred to in article 1 was being, or was about to be, carried out in its territory or in other places under its jurisdiction or control.
>
> "2. Unless there is evidence to the contrary, it shall be presumed that the State of origin has the knowledge or the means of knowing referred to in the preceding paragraph."

activities referred to in article 1 (fourth and fifth reports).][28]

[Article 5. Absence of effect upon other rules of international law][*]

[Application of other rules of international law to transboundary injury arising from wrongful acts or omissions of the State of origin not specified in the present articles (fourth and fifth reports).][29]

CHAPTER II

PRINCIPLES[**]

Article 6. [A] *Freedom of action and the limits thereto*

The freedom of States to carry on or permit activities in their territory or otherwise under their jurisdiction or control is not unlimited. It is subject to the general obligation to prevent or minimize the risk of causing significant transboundary harm, as well as any specific obligations owed to other States in that regard.

Article 7. [B] *Prevention*

States shall take all appropriate measures to prevent or minimize the risk of significant transboundary harm.

Article 8. [C] *Liability and reparation*

In accordance with the present articles, liability arises from significant transboundary harm caused by an activity referred to in article 1 and shall give rise to reparation.

Article 9. [D] *Cooperation*

States concerned shall cooperate in good faith and as necessary seek the assistance of any international organization in preventing or minimizing the risk of significant transboundary harm and, if such harm has occurred, in minimizing its effects both in affected States and in States of origin.

[Article 10. Non-discrimination]

[States parties shall treat the effects of an activity that arise in the territory or under the jurisdiction or control of another State in the same way as effects arising in their own territory. In particular, they shall apply the provisions of these articles and of their national laws without discrimination on grounds of the nationality, domicile or residence of persons injured by the activities referred to in article 1.]

Article 11. Prior authorization

States shall ensure that activities referred to in article 1 are not carried out in their territory or otherwise under their jurisdiction or control without their prior authorization. Such authorization shall also be required in case a major change is planned which may transform an activity into one referred to in article 1.

Article 12. Risk assessment

Before taking a decision to authorize an activity referred to in article 1, a State shall ensure that an assessment is undertaken of the risk of such activity. Such an assessment shall include an evaluation of the possible impact of that activity on persons or property as well as in the environment of other States.

Article 13. Pre-existing activities

If a State, having assumed the obligations contained in these articles, ascertains that an activity involving a risk of causing significant transboundary harm is already being carried out in its territory or otherwise under its jurisdiction or control without the authorization as required by article 11, it shall direct those responsible for carrying out the activity that they must obtain the necessary authorization. Pending authorization, the State may permit the continuation of the activity in question at its own risk.

Article 14. Measures to prevent or minimize the risk

States shall take legislative, administrative or other actions to ensure that all appropriate measures are adopted to prevent or minimize the risk of transboundary harm of activities referred to in article 1.

Article 14 bis. *Non-transference of risk*[*]

In taking measures to prevent or minimize a risk of causing significant transboundary harm, States shall ensure that the risk is not simply transferred, directly or indirectly, from one area to another or transformed from one type of risk into another.

Article 15. Notification and information

1. If the assessment referred to in article 12 indicates a risk of causing significant transboundary

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[*] The Commission may decide not to include these two articles, bearing in mind that it does not normally include final provisions in the draft articles it produces.

[28] In the fourth report, article 4 (Relationship between the present articles and other international agreements) reads as follows:

> "Where States parties to the present articles are also parties to another international agreement concerning activities or situations within the scope of the present articles, in relations between such States the present articles shall apply, subject to that other international agreement."

In the fifth report, the same article reads as follows:

> "Where States parties to the present articles are also parties to another international agreement concerning activities referred to in article 1, in relations between such States the present articles shall apply, subject to that other international agreement."

[29] The text proposed by the Special Rapporteur reads as follows:

> "The fact that the present articles do not specify circumstances in which the occurrence of transboundary harm arises from a wrongful act or omission of the State of origin shall be without prejudice to the operation of any other rule of international law."

[**] In articles 6–9 the letters in square brackets correspond to the numbering of the draft articles as provisionally adopted by the Commission in 1995.

[*] It would be preferable to place this article with those dealing with principles.

harm, the State of origin shall notify without delay the States likely to be affected and shall transmit to them the available technical and other relevant information on which the assessment is based and an indication of a reasonable time within which a response is required.

2. Where it subsequently comes to the knowledge of the State of origin that there are other States likely to be affected, it shall notify them without delay.

Article 16. Exchange of information

While the activity is being carried out, the States concerned shall exchange in a timely manner all information relevant to preventing or minimizing the risk of causing significant transboundary harm.

Article 16 bis. *Information to the public*

States shall, whenever possible and by such means as are appropriate, provide their own public likely to be affected by an activity referred to in article 1 with information relating to that activity, the risk involved and the harm which might result and ascertain their views.

Article 17. National security and industrial secrets

Data and information vital to the national security of the State of origin or to the protection of industrial secrets may be withheld, but the State of origin shall cooperate in good faith with the other States concerned in providing as much information as can be provided under the circumstances.

Article 18. Consultations on preventive measures

1. The States concerned shall enter into consultations, at the request of any of them and without delay, with a view to achieving acceptable solutions regarding measures to be adopted in order to prevent or minimize the risk of causing significant transboundary harm, and cooperate in the implementation of these measures.[**]

2. States shall seek solutions based on an equitable balance of interests in the light of article 20.

3. If the consultations referred to in paragraph 1 fail to produce an agreed solution the State of origin shall nevertheless take into account the interests of States likely to be affected and may proceed with the activity at its own risk, without prejudice to the right of any State withholding its agreement to pursue such rights as it may have under these articles or otherwise.

Article 19. Rights of the State likely to be affected

1. When no notification has been given of an activity conducted in the territory or otherwise under the jurisdiction or control of a State, any other State which has serious reason to believe that the activity has created a risk of causing it significant harm may require consultations under article 18.

2. The State requiring consultations shall provide a technical assessment setting forth the reasons for such belief. If the activity is found to be one of those referred to in article 1, the State requiring consultations may claim an equitable share of the cost of the assessment from the State of origin.

Article 20. Factors involved in an equitable balance of interests

In order to achieve an equitable balance of interests as referred to in paragraph 2 of article 18, the States concerned shall take into account all relevant factors and circumstances, including:

(*a*) The degree of risk of significant transboundary harm and the availability of means of preventing or minimizing such risk or of repairing the harm;

(*b*) The importance of the activity, taking into account its overall advantages of a social, economic and technical character for the State of origin in relation to the potential harm for the States likely to be affected;

(*c*) The risk of significant harm to the environment and the availability of means of preventing or minimizing such risk or restoring the environment;

(*d*) The economic viability of the activity in relation to the costs of prevention demanded by the States likely to be affected and to the possibility of carrying out the activity elsewhere or by other means or replacing it with an alternative activity;

(*e*) The degree to which the States likely to be affected are prepared to contribute to the costs of prevention;

(*f*) The standards of protection which the States likely to be affected apply to the same or comparable activities and the standards applied in comparable regional or international practice.

[**] If the Commission adopts a regime of liability for acts not prohibited, it will have to change the wording of this paragraph to include remedial measures.

Annex 473

Annex, Plan of Implementation of the World Summit on Sustainable Development, Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002, A/CONF.199/20, 2002, pages 7-20

A/CONF.199/20*

United Nations

Report of the World Summit on Sustainable Development

Johannesburg, South Africa, 26 August-4 September 2002

A/CONF.199/20*

Report of the World Summit on Sustainable Development

Johannesburg, South Africa, 26 August-4 September 2002

United Nations • New York, 2002

* Reissued for technical reasons.

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A/CONF.199/20*
United Nations publication
Sales No. E.03.II.A.1
ISBN 92-1-104521-5

Annex
Plan of Implementation of the World Summit on Sustainable Development

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I. Introduction

1. The United Nations Conference on Environment and Development, held in Rio de Janeiro in 1992,[1] provided the fundamental principles and the programme of action for achieving sustainable development. We strongly reaffirm our commitment to the Rio principles,[2] the full implementation of Agenda 21[2] and the Programme for the Further Implementation of Agenda 21[3]. We also commit ourselves to achieving the internationally agreed development goals, including those contained in the United Nations Millennium Declaration[4] and in the outcomes of the major United Nations conferences and international agreements since 1992.

2. The present plan of implementation will further build on the achievements made since the United Nations Conference on Environment and Development and expedite the realization of the remaining goals. To this end, we commit ourselves to undertaking concrete actions and measures at all levels and to enhancing international cooperation, taking into account the Rio principles, including, inter alia, the principle of common but differentiated responsibilities as set out in principle 7 of the Rio Declaration on Environment and Development.[5] These efforts will also promote the integration of the three components of sustainable development — economic development, social development and environmental protection — as interdependent and mutually reinforcing pillars. Poverty eradication, changing unsustainable patterns of production and consumption and protecting and managing the natural resource base of economic and social development are overarching objectives of, and essential requirements for, sustainable development.

3. We recognize that the implementation of the outcomes of the Summit should benefit all, particularly women, youth, children and vulnerable groups. Furthermore, the implementation should involve all relevant actors through partnerships, especially between Governments of the North and South, on the one hand, and between Governments and major groups, on the other, to achieve the widely shared goals of sustainable development. As reflected in the Monterrey Consensus,[6] such partnerships are key to pursuing sustainable development in a globalizing world.

4. Good governance within each country and at the international level is essential for sustainable development. At the domestic level, sound environmental, social and economic policies, democratic institutions responsive to the needs of the people, the rule of law, anti-corruption measures, gender equality and an enabling environment for investment are the basis for sustainable development. As a result of globalization, external factors have become critical in determining the success or failure of developing countries in their national efforts. The gap between developed

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[1] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992* (United Nations publication, Sales No. E.93.I.8 and corrigenda).

[2] Ibid., vol. I: *Resolutions Adopted by the Conference*, resolution 1, annexes I and II.

[3] General Assembly resolution S-19/2, annex.

[4] General Assembly resolution 55/2.

[5] Report of the *United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992* (United Nations publication, Sales No. E.93.I.8 and corrigenda), vol. I: *Resolutions Adopted by the Conference*, resolution 1, annex I.

[6] *Report of the International Conference on Financing for Development , Monterrey, Mexico, 18-22 March 2002* (United Nations publication, Sales No. E.02.II.A.7), chap. I, resolution 1, annex.

and developing countries points to the continued need for a dynamic and enabling international economic environment supportive of international cooperation, particularly in the areas of finance, technology transfer, debt and trade and full and effective participation of developing countries in global decision-making, if the momentum for global progress towards sustainable development is to be maintained and increased.

5. Peace, security, stability and respect for human rights and fundamental freedoms, including the right to development, as well as respect for cultural diversity, are essential for achieving sustainable development and ensuring that sustainable development benefits all.

6. We acknowledge the importance of ethics for sustainable development and, therefore, emphasize the need to consider ethics in the implementation of Agenda 21.

II. Poverty eradication

7. Eradicating poverty is the greatest global challenge facing the world today and an indispensable requirement for sustainable development, particularly for developing countries. Although each country has the primary responsibility for its own sustainable development and poverty eradication and the role of national policies and development strategies cannot be overemphasized, concerted and concrete measures are required at all levels to enable developing countries to achieve their sustainable development goals as related to the internationally agreed poverty-related targets and goals, including those contained in Agenda 21, the relevant outcomes of other United Nations conferences and the United Nations Millennium Declaration. This would include actions at all levels to:

(a) Halve, by the year 2015, the proportion of the world's people whose income is less than 1 dollar a day and the proportion of people who suffer from hunger and, by the same date, to halve the proportion of people without access to safe drinking water;

(b) Establish a world solidarity fund to eradicate poverty and to promote social and human development in the developing countries pursuant to modalities to be determined by the General Assembly, while stressing the voluntary nature of the contributions and the need to avoid duplication of existing United Nations funds, and encouraging the role of the private sector and individual citizens relative to Governments in funding the endeavours;

(c) Develop national programmes for sustainable development and local and community development, where appropriate within country-owned poverty reduction strategies, to promote the empowerment of people living in poverty and their organizations. These programmes should reflect their priorities and enable them to increase access to productive resources, public services and institutions, in particular land, water, employment opportunities, credit, education and health;

(d) Promote women's equal access to and full participation in, on the basis of equality with men, decision-making at all levels, mainstreaming gender perspectives in all policies and strategies, eliminating all forms of violence and discrimination against women and improving the status, health and economic welfare of women

and girls through full and equal access to economic opportunity, land, credit, education and health-care services;

(e) Develop policies and ways and means to improve access by indigenous people and their communities to economic activities and increase their employment through, where appropriate, measures such as training, technical assistance and credit facilities. Recognize that traditional and direct dependence on renewable resources and ecosystems, including sustainable harvesting, continues to be essential to the cultural, economic and physical well-being of indigenous people and their communities;

(f) Deliver basic health services for all and reduce environmental health threats, taking into account the special needs of children and the linkages between poverty, health and environment, with provision of financial resources, technical assistance and knowledge transfer to developing countries and countries with economies in transition;

(g) Ensure that children everywhere, boys and girls alike, will be able to complete a full course of primary schooling and will have equal access to all levels of education;

(h) Provide access to agricultural resources for people living in poverty, especially women and indigenous communities, and promote, as appropriate, land tenure arrangements that recognize and protect indigenous and common property resource management systems;

(i) Build basic rural infrastructure, diversify the economy and improve transportation and access to markets, market information and credit for the rural poor to support sustainable agriculture and rural development;

(j) Transfer basic sustainable agricultural techniques and knowledge, including natural resource management, to small and medium-scale farmers, fishers and the rural poor, especially in developing countries, including through multi-stakeholder approaches and public-private partnerships aimed at increasing agriculture production and food security;

(k) Increase food availability and affordability, including through harvest and food technology and management, as well as equitable and efficient distribution systems, by promoting, for example, community-based partnerships linking urban and rural people and enterprises;

(l) Combat desertification and mitigate the effects of drought and floods through measures such as improved use of climate and weather information and forecasts, early warning systems, land and natural resource management, agricultural practices and ecosystem conservation in order to reverse current trends and minimize degradation of land and water resources, including through the provision of adequate and predictable financial resources to implement the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa,[7] as one of the tools for poverty eradication;

[7] United Nations, *Treaty Series*, vol. 1954, No. 33480.

(m) Increase access to sanitation to improve human health and reduce infant and child mortality, prioritizing water and sanitation in national sustainable development strategies and poverty reduction strategies where they exist.

8. The provision of clean drinking water and adequate sanitation is necessary to protect human health and the environment. In this respect, we agree to halve, by the year 2015, the proportion of people who are unable to reach or to afford safe drinking water (as outlined in the Millennium Declaration) and the proportion of people who do not have access to basic sanitation, which would include actions at all levels to:

(a) Develop and implement efficient household sanitation systems;

(b) Improve sanitation in public institutions, especially schools;

(c) Promote safe hygiene practices;

(d) Promote education and outreach focused on children, as agents of behavioural change;

(e) Promote affordable and socially and culturally acceptable technologies and practices;

(f) Develop innovative financing and partnership mechanisms;

(g) Integrate sanitation into water resources management strategies.

9. Take joint actions and improve efforts to work together at all levels to improve access to reliable and affordable energy services for sustainable development sufficient to facilitate the achievement of the Millennium development goals, including the goal of halving the proportion of people in poverty by 2015, and as a means to generate other important services that mitigate poverty, bearing in mind that access to energy facilitates the eradication of poverty. This would include actions at all levels to:

(a) Improve access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services and resources, taking into account national specificities and circumstances, through various means, such as enhanced rural electrification and decentralized energy systems, increased use of renewables, cleaner liquid and gaseous fuels and enhanced energy efficiency, by intensifying regional and international cooperation in support of national efforts, including through capacity-building, financial and technological assistance and innovative financing mechanisms, including at the micro- and meso- levels, recognizing the specific factors for providing access to the poor;

(b) Improve access to modern biomass technologies and fuelwood sources and supplies and commercialize biomass operations, including the use of agricultural residues, in rural areas and where such practices are sustainable;

(c) Promote a sustainable use of biomass and, as appropriate, other renewable energies through improvement of current patterns of use, such as management of resources, more efficient use of fuelwood and new or improved products and technologies;

(d) Support the transition to the cleaner use of liquid and gaseous fossil fuels, where considered more environmentally sound, socially acceptable and cost-effective;

(e) Develop national energy policies and regulatory frameworks that will help to create the necessary economic, social and institutional conditions in the energy sector to improve access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services for sustainable development and poverty eradication in rural, peri-urban and urban areas;

(f) Enhance international and regional cooperation to improve access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services, as an integral part of poverty reduction programmes, by facilitating the creation of enabling environments and addressing capacity-building needs, with special attention to rural and isolated areas, as appropriate;

(g) Assist and facilitate on an accelerated basis, with the financial and technical assistance of developed countries, including through public-private partnerships, the access of the poor to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services, taking into account the instrumental role of developing national policies on energy for sustainable development, bearing in mind that in developing countries sharp increases in energy services are required to improve the standards of living of their populations and that energy services have positive impacts on poverty eradication and improve standards of living.

10. Strengthen the contribution of industrial development to poverty eradication and sustainable natural resource management. This would include actions at all levels to:

(a) Provide assistance and mobilize resources to enhance industrial productivity and competitiveness as well as industrial development in developing countries, including the transfer of environmentally sound technologies on preferential terms, as mutually agreed;

(b) Provide assistance to increase income-generating employment opportunities, taking into account the Declaration on Fundamental Principles and Rights at Work of the International Labour Organization;[8]

(c) Promote the development of micro, small and medium-sized enterprises, including by means of training, education and skill enhancement, with a special focus on agro-industry as a provider of livelihoods for rural communities;

(d) Provide financial and technological support, as appropriate, to rural communities of developing countries to enable them to benefit from safe and sustainable livelihood opportunities in small-scale mining ventures;

(e) Provide support to developing countries for the development of safe low-cost technologies that provide or conserve fuel for cooking and water heating;

(f) Provide support for natural resource management for creating sustainable livelihoods for the poor.

11. By 2020, achieve a significant improvement in the lives of at least 100 million slum dwellers, as proposed in the “Cities without slums” initiative. This would include actions at all levels to:

[8] See *ILO Declaration on Fundamental Principles and Rights at Work and its Follow-up Adopted by the International Labour Conference at its Eighty-sixth Session, Geneva, 16 June 1998* (Geneva, International Labour Office, 1998).

(a) Improve access to land and property, to adequate shelter and to basic services for the urban and rural poor, with special attention to female heads of household;

(b) Use low-cost and sustainable materials and appropriate technologies for the construction of adequate and secure housing for the poor, with financial and technological assistance to developing countries, taking into account their culture, climate, specific social conditions and vulnerability to natural disasters;

(c) Increase decent employment, credit and income for the urban poor, through appropriate national policies, promoting equal opportunities for women and men;

(d) Remove unnecessary regulatory and other obstacles for microenterprises and the informal sector;

(e) Support local authorities in elaborating slum upgrading programmes within the framework of urban development plans and facilitate access, particularly for the poor, to information on housing legislation.

12. Take immediate and effective measures to eliminate the worst forms of child labour as defined in International Labour Organization Convention No. 182, and elaborate and implement strategies for the elimination of child labour that is contrary to accepted international standards.

13. Promote international cooperation to assist developing countries, upon request, in addressing child labour and its root causes, inter alia, through social and economic policies aimed at poverty conditions, while stressing that labour standards should not be used for protectionist trade purposes.

III. Changing unsustainable patterns of consumption and production

14. Fundamental changes in the way societies produce and consume are indispensable for achieving global sustainable development. All countries should promote sustainable consumption and production patterns, with the developed countries taking the lead and with all countries benefiting from the process, taking into account the Rio principles, including, inter alia, the principle of common but differentiated responsibilities as set out in principle 7 of the Rio Declaration on Environment and Development. Governments, relevant international organizations, the private sector and all major groups should play an active role in changing unsustainable consumption and production patterns. This would include the actions at all levels set out below.

15. Encourage and promote the development of a 10-year framework of programmes in support of regional and national initiatives to accelerate the shift towards sustainable consumption and production to promote social and economic development within the carrying capacity of ecosystems by addressing and, where appropriate, delinking economic growth and environmental degradation through improving efficiency and sustainability in the use of resources and production processes and reducing resource degradation, pollution and waste. All countries should take action, with developed countries taking the lead, taking into account the development needs and capabilities of developing countries, through mobilization,

from all sources, of financial and technical assistance and capacity-building for developing countries. This would require actions at all levels to:

(a) Identify specific activities, tools, policies, measures and monitoring and assessment mechanisms, including, where appropriate, life-cycle analysis and national indicators for measuring progress, bearing in mind that standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries;

(b) Adopt and implement policies and measures aimed at promoting sustainable patterns of production and consumption, applying, inter alia, the polluter-pays principle described in principle 16 of the Rio Declaration on Environment and Development;

(c) Develop production and consumption policies to improve the products and services provided, while reducing environmental and health impacts, using, where appropriate, science-based approaches, such as life-cycle analysis;

(d) Develop awareness-raising programmes on the importance of sustainable production and consumption patterns, particularly among youth and the relevant segments in all countries, especially in developed countries, through, inter alia, education, public and consumer information, advertising and other media, taking into account local, national and regional cultural values;

(e) Develop and adopt, where appropriate, on a voluntary basis, effective, transparent, verifiable, non-misleading and non-discriminatory consumer information tools to provide information relating to sustainable consumption and production, including human health and safety aspects. These tools should not be used as disguised trade barriers;

(f) Increase eco-efficiency, with financial support from all sources, where mutually agreed, for capacity-building, technology transfer and exchange of technology with developing countries and countries with economies in transition, in cooperation with relevant international organizations.

16. Increase investment in cleaner production and eco-efficiency in all countries through, inter alia, incentives and support schemes and policies directed at establishing appropriate regulatory, financial and legal frameworks. This would include actions at all levels to:

(a) Establish and support cleaner production programmes and centres and more efficient production methods by providing, inter alia, incentives and capacity-building to assist enterprises, especially small and medium-sized enterprises, particularly in developing countries, in improving productivity and sustainable development;

(b) Provide incentives for investment in cleaner production and eco-efficiency in all countries, such as state-financed loans, venture capital, technical assistance and training programmes for small and medium-sized companies while avoiding trade-distorting measures inconsistent with the rules of the World Trade Organization;

(c) Collect and disseminate information on cost-effective examples in cleaner production, eco-efficiency and environmental management and promote the

exchange of best practices and know-how on environmentally sound technologies between public and private institutions;

(d) Provide training programmes to small and medium-sized enterprises on the use of information and communication technologies.

17. Integrate the issue of production and consumption patterns into sustainable development policies, programmes and strategies, including, where applicable, into poverty reduction strategies.

18. Enhance corporate environmental and social responsibility and accountability. This would include actions at all levels to:

(a) Encourage industry to improve social and environmental performance through voluntary initiatives, including environmental management systems, codes of conduct, certification and public reporting on environmental and social issues, taking into account such initiatives as the International Organization for Standardization standards and Global Reporting Initiative guidelines on sustainability reporting, bearing in mind principle 11 of the Rio Declaration on Environment and Development;

(b) Encourage dialogue between enterprises and the communities in which they operate and other stakeholders;

(c) Encourage financial institutions to incorporate sustainable development considerations into their decision-making processes;

(d) Develop workplace-based partnerships and programmes, including training and education programmes.

19. Encourage relevant authorities at all levels to take sustainable development considerations into account in decision-making, including on national and local development planning, investment in infrastructure, business development and public procurement. This would include actions at all levels to:

(a) Provide support for the development of sustainable development strategies and programmes, including in decision-making on investment in infrastructure and business development;

(b) Continue to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the costs of pollution, with due regard to the public interest and without distorting international trade and investment;

(c) Promote public procurement policies that encourage development and diffusion of environmentally sound goods and services;

(d) Provide capacity-building and training to assist relevant authorities with regard to the implementation of the initiatives listed in the present paragraph;

(e) Use environmental impact assessment procedures.

* * *

20. Call upon Governments as well as relevant regional and international organizations and other relevant stakeholders to implement, taking into account national and regional specificities and circumstances, the recommendations and conclusions adopted by the Commission on Sustainable Development concerning

energy for sustainable development at its ninth session, including the issues and options set out below, bearing in mind that in view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. This would include actions at all levels to:

(a) Take further action to mobilize the provision of financial resources, technology transfer, capacity-building and the diffusion of environmentally sound technologies according to the recommendations and conclusions of the Commission on Sustainable Development, as contained in section A, paragraph 3, and section D, paragraph 30, of its decision 9/1[9] on energy for sustainable development;

(b) Integrate energy considerations, including energy efficiency, affordability and accessibility, into socio-economic programmes, especially into policies of major energy-consuming sectors, and into the planning, operation and maintenance of long-lived energy consuming infrastructures, such as the public sector, transport, industry, agriculture, urban land use, tourism and construction sectors;

(c) Develop and disseminate alternative energy technologies with the aim of giving a greater share of the energy mix to renewable energies, improving energy efficiency and greater reliance on advanced energy technologies, including cleaner fossil fuel technologies;

(d) Combine, as appropriate, the increased use of renewable energy resources, more efficient use of energy, greater reliance on advanced energy technologies, including advanced and cleaner fossil fuel technologies, and the sustainable use of traditional energy resources, which could meet the growing need for energy services in the longer term to achieve sustainable development;

(e) Diversify energy supply by developing advanced, cleaner, more efficient, affordable and cost-effective energy technologies, including fossil fuel technologies and renewable energy technologies, hydro included, and their transfer to developing countries on concessional terms as mutually agreed. With a sense of urgency, substantially increase the global share of renewable energy sources with the objective of increasing its contribution to total energy supply, recognizing the role of national and voluntary regional targets as well as initiatives, where they exist, and ensuring that energy policies are supportive to developing countries' efforts to eradicate poverty, and regularly evaluate available data to review progress to this end;

(f) Support efforts, including through provision of financial and technical assistance to developing countries, with the involvement of the private sector, to reduce flaring and venting of gas associated with crude oil production;

(g) Develop and utilize indigenous energy sources and infrastructures for various local uses and promote rural community participation, including local Agenda 21 groups, with the support of the international community, in developing and utilizing renewable energy technologies to meet their daily energy needs to find simple and local solutions;

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[9] *Official Records of the Economic and Social Council, 2001, Supplement No. 9* (E/2001/29), chap. I.B.

(h) Establish domestic programmes for energy efficiency, including, as appropriate, by accelerating the deployment of energy efficiency technologies, with the necessary support of the international community;

(i) Accelerate the development, dissemination and deployment of affordable and cleaner energy efficiency and energy conservation technologies, as well as the transfer of such technologies, in particular to developing countries, on favourable terms, including on concessional and preferential terms, as mutually agreed;

(j) Recommend that international financial institutions and other agencies' policies support developing countries, as well as countries with economies in transition, in their own efforts to establish policy and regulatory frameworks which create a level playing field between the following: renewable energy, energy efficiency, advanced energy technologies, including advanced and cleaner fossil fuel technologies, and centralized, distributed and decentralized energy systems;

(k) Promote increased research and development in the field of various energy technologies, including renewable energy, energy efficiency and advanced energy technologies, including advanced and cleaner fossil fuel technologies, both nationally and through international collaboration; strengthen national and regional research and development institutions/centres on reliable, affordable, economically viable, socially acceptable and environmentally sound energy for sustainable development;

(l) Promote networking between centres of excellence on energy for sustainable development, including regional networks, by linking competent centres on energy technologies for sustainable development that could support and promote efforts at capacity-building and technology transfer activities, particularly of developing countries, as well as serve as information clearing houses;

(m) Promote education to provide information for both men and women about available energy sources and technologies;

(n) Utilize financial instruments and mechanisms, in particular the Global Environment Facility, within its mandate, to provide financial resources to developing countries, in particular least developed countries and small island developing States, to meet their capacity needs for training, technical know-how and strengthening national institutions in reliable, affordable, economically viable, socially acceptable and environmentally sound energy, including promoting energy efficiency and conservation, renewable energy and advanced energy technologies, including advanced and cleaner fossil fuel technologies;

(o) Support efforts to improve the functioning, transparency and information about energy markets with respect to both supply and demand, with the aim of achieving greater stability and predictability, and to ensure consumer access to reliable, affordable, economically viable, socially acceptable and environmentally sound energy services;

(p) Policies to reduce market distortions would promote energy systems compatible with sustainable development through the use of improved market signals and by removing market distortions, including restructuring taxation and phasing out harmful subsidies, where they exist, to reflect their environmental impacts, with such policies taking fully into account the specific needs and

conditions of developing countries, with the aim of minimizing the possible adverse impacts on their development;

(q) Take action, where appropriate, to phase out subsidies in this area that inhibit sustainable development, taking fully into account the specific conditions and different levels of development of individual countries and considering their adverse effect, particularly on developing countries;

(r) Governments are encouraged to improve the functioning of national energy markets in such a way that they support sustainable development, overcome market barriers and improve accessibility, taking fully into account that such policies should be decided by each country, and that its own characteristics and capabilities and level of development should be considered, especially as reflected in national sustainable development strategies, where they exist;

(s) Strengthen national and regional energy institutions or arrangements for enhancing regional and international cooperation on energy for sustainable development, in particular to assist developing countries in their domestic efforts to provide reliable, affordable, economically viable, socially acceptable and environmentally sound energy services to all sections of their populations;

(t) Countries are urged to develop and implement actions within the framework of the ninth session of the Commission on Sustainable Development, including through public-private partnerships, taking into account the different circumstances of countries, based on lessons learned by Governments, international institutions and stakeholders, including business and industry, in the field of access to energy, including renewable energy and energy-efficiency and advanced energy technologies, including advanced and cleaner fossil fuel technologies;

(u) Promote cooperation between international and regional institutions and bodies dealing with different aspects of energy for sustainable development within their existing mandate, bearing in mind paragraph 46 (h) of the Programme of Action for the Further Implementation of Agenda 21, strengthening, as appropriate, regional and national activities for the promotion of education and capacity-building regarding energy for sustainable development;

(v) Strengthen and facilitate, as appropriate, regional cooperation arrangements for promoting cross-border energy trade, including the interconnection of electricity grids and oil and natural gas pipelines;

(w) Strengthen and, where appropriate, facilitate dialogue forums among regional, national and international producers and consumers of energy.

* * *

21. Promote an integrated approach to policy-making at the national, regional and local levels for transport services and systems to promote sustainable development, including policies and planning for land use, infrastructure, public transport systems and goods delivery networks, with a view to providing safe, affordable and efficient transportation, increasing energy efficiency, reducing pollution, congestion and adverse health effects and limiting urban sprawl, taking into account national priorities and circumstances. This would include actions at all levels to:

(a) Implement transport strategies for sustainable development, reflecting specific regional, national and local conditions, to improve the affordability,

efficiency and convenience of transportation as well as urban air quality and health and reduce greenhouse gas emissions, including through the development of better vehicle technologies that are more environmentally sound, affordable and socially acceptable;

(b) Promote investment and partnerships for the development of sustainable, energy efficient multi-modal transportation systems, including public mass transportation systems and better transportation systems in rural areas, with technical and financial assistance for developing countries and countries with economies in transition.

* * *

22. Prevent and minimize waste and maximize reuse, recycling and use of environmentally friendly alternative materials, with the participation of government authorities and all stakeholders, in order to minimize adverse effects on the environment and improve resource efficiency, with financial, technical and other assistance for developing countries. This would include actions at all levels to:

(a) Develop waste management systems, with the highest priority placed on waste prevention and minimization, reuse and recycling, and environmentally sound disposal facilities, including technology to recapture the energy contained in waste, and encourage small-scale waste-recycling initiatives that support urban and rural waste management and provide income-generating opportunities, with international support for developing countries;

(b) Promote waste prevention and minimization by encouraging production of reusable consumer goods and biodegradable products and developing the infrastructure required.

* * *

23. Renew the commitment, as advanced in Agenda 21, to sound management of chemicals throughout their life cycle and of hazardous wastes for sustainable development as well as for the protection of human health and the environment, inter alia, aiming to achieve, by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment, using transparent science-based risk assessment procedures and science-based risk management procedures, taking into account the precautionary approach, as set out in principle 15 of the Rio Declaration on Environment and Development, and support developing countries in strengthening their capacity for the sound management of chemicals and hazardous wastes by providing technical and financial assistance. This would include actions at all levels to:

(a) Promote the ratification and implementation of relevant international instruments on chemicals and hazardous waste, including the Rotterdam Convention on Prior Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade[10] so that it can enter into force by 2003 and the Stockholm Convention on Persistent Organic Pollutants[11] so that it can enter into force by 2004, and encourage and improve coordination as well as supporting developing countries in their implementation;

[10] UNEP/FAO/PIC/CONF.5, annex III.

[11] www.chem.unep.ch/sc.

(b) Further develop a strategic approach to international chemicals management based on the Bahia Declaration and Priorities for Action beyond 2000 of the Intergovernmental Forum on Chemical Safety[12] by 2005, and urge that the United Nations Environment Programme, the Intergovernmental Forum, other international organizations dealing with chemical management and other relevant international organizations and actors closely cooperate in this regard, as appropriate;

(c) Encourage countries to implement the new globally harmonized system for the classification and labelling of chemicals as soon as possible with a view to having the system fully operational by 2008;

(d) Encourage partnerships to promote activities aimed at enhancing environmentally sound management of chemicals and hazardous wastes, implementing multilateral environmental agreements, raising awareness of issues relating to chemicals and hazardous waste and encouraging the collection and use of additional scientific data;

(e) Promote efforts to prevent international illegal trafficking of hazardous chemicals and hazardous wastes and to prevent damage resulting from the transboundary movement and disposal of hazardous wastes in a manner consistent with obligations under relevant international instruments, such as the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal;[13]

(f) Encourage development of coherent and integrated information on chemicals, such as through national pollutant release and transfer registers;

(g) Promote reduction of the risks posed by heavy metals that are harmful to human health and the environment, including through a review of relevant studies, such as the United Nations Environment Programme global assessment of mercury and its compounds.

IV. Protecting and managing the natural resource base of economic and social development

24. Human activities are having an increasing impact on the integrity of ecosystems that provide essential resources and services for human well-being and economic activities. Managing the natural resources base in a sustainable and integrated manner is essential for sustainable development. In this regard, to reverse the current trend in natural resource degradation as soon as possible, it is necessary to implement strategies which should include targets adopted at the national and, where appropriate, regional levels to protect ecosystems and to achieve integrated management of land, water and living resources, while strengthening regional, national and local capacities. This would include actions at all levels as set out below.

25. Launch a programme of actions, with financial and technical assistance, to achieve the Millennium development goal on safe drinking water. In this respect, we

[12] Intergovernmental Forum on Chemical Safety, third session, Forum III final report (IFCS/Forum III/23w), annex 6.

[13] United Nations *Treaty Series*, vol. 1673, No. 28911.

Annex 474

"Climate change, small island developing States", *Climate Change Secretariat, United Nations Framework Convention on Climate Change* (UNFCCC), 2005

climate change

small island developing States

UNFCCC (2005) climate change, small island developing States. Issued by the CLIMATE CHANGE SECRETARIAT (UNFCCC), Bonn, Germany.

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ISBN 92–9219–012–1

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"The Maldives is one of the small states. We are not in a position to change the course of events in the world. But what you do or do not do here will greatly influence the fate of my people. It can also change the course of world history."

Statement by H.E. Maumoon Abdul Gayoom
(Maldives)
4 December 1997, Kyoto, Japan (COP 3)

Foreword

Since the negotiations that led to the United Nations Framework Convention on Climate Change began, one group of Parties has been particularly active and vocal: the small island developing States, or SIDS.

Why is climate change so important to SIDS? The answer is simple: these small nations are among the most vulnerable to climate change impacts, which will become critical if no appropriate action is taken. Many islands are threatened by rising sea levels. Another growing concern is the increasing number and severity of extreme weather events—with all they entail in terms of loss of life and damage to property and infrastructure that can easily cripple small economies. SIDS are among the Parties least responsible for climate change and are dependent on others to ensure that significant action is taken in support of the Convention. Consequently, they strive not only to support the process directly but also to ensure that proper international action is taken to limit emissions of greenhouse gases and to adapt to climate change.

This publication highlights the SIDS' participation in the Convention as well as some of the ongoing needs and concerns that they have expressed in the course of the UNFCCC process.

Happy reading!



Joke Waller Hunter, Executive Secretary, UNFCCC

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Small island developing States and climate change

"It is a particular honour, Madame, as amongst our membership are many countries that have been "first movers" in the international response against climate change. These include:

- *Maldives, host to one of the first Ministerial Declarations on the Impacts of Climate Change;*
- *Malta, sponsor of the UN General Assembly Resolution that launched the Convention negotiations;*
- *Vanuatu, who submitted the first outline of elements for a Convention;*
- *Mauritius, the first state to ratify the Convention, followed quickly by Seychelles and the Marshall Islands;*
- *Trinidad and Tobago, sponsor of the AOSIS protocol that spurred the Berlin Mandate process;*
- *Fiji and Antigua and Barbuda, the first to ratify the Kyoto Protocol;*

and the many island States whose delegations work tirelessly in this process to defend the front line in the battle against global warming."

Statement by
H.E. T. Neroni Slade (Samoa on behalf of AOSIS)
12 November 1998, Buenos Aires, Argentina
(COP 4)

Small island developing States (SIDS) have long been recognized by the international community as a special case whose needs and concerns have to be addressed (see box 1). Although these countries are among the least responsible for climate change, they are likely to suffer most from its adverse effects and could in some cases even become uninhabitable. This is what makes them a special case requiring the help and attention of the international community.

Forty-one SIDS are currently Parties to the United Nations Framework Convention on Climate Change (UNFCCC), and 29 are also signatories to the Kyoto Protocol. Many SIDS are members of the Alliance of Small Island States (AOSIS), and 11 are listed as least developed countries (LDCs). See figure 1 for an illustration of how small island nations are represented in the various negotiating groups of the UNFCCC.

SIDS have not only focused their attention on negotiations of the UNFCCC and its Kyoto Protocol over the course of the past 10 years; they have also taken a lead in implementing the Convention.

Box 1. Small island developing States in the international arena

The unique situation of small island developing States (SIDS) was acknowledged at the United Nations Conference on Environment and Development in Rio de Janeiro in 1992. Governments agreed that concerted action was needed to address development for the sake of future generations.

In 1994, in Barbados, the Global Conference on the Sustainable Development of Small Island Developing States included specific actions and measures at the national, regional and international levels in support of sustainable development. The particular vulnerability of SIDS to climate change, climate variability and sea-level rise featured prominently in the Barbados Programme of Action, which identified priority areas and indicated the specific actions needed to address the special challenges faced by the governments of these countries.

The urgency for action to address the special needs of SIDS by implementing the Barbados Programme of Action and the outcome of the twenty-second special session of the General Assembly were both recognized by the United Nations Millennium Summit in 2000, when governments pledged to address the special needs of SIDS "rapidly and in full" by 2015. The Summit also urged the international community to ensure that, in the development of a vulnerability index, the special needs of SIDS were taken into account.

In 2002, the World Summit on Sustainable Development highlighted the fact that SIDS are a special case both for environment and for development by stating that although the governments of these countries continue to take the lead in the path towards sustainable development in their countries, they are increasingly constrained by the interplay of numerous adverse factors.

Figure 1: SIDS groups within the negotiating groups of the United Nations Framework Convention on Climate Change

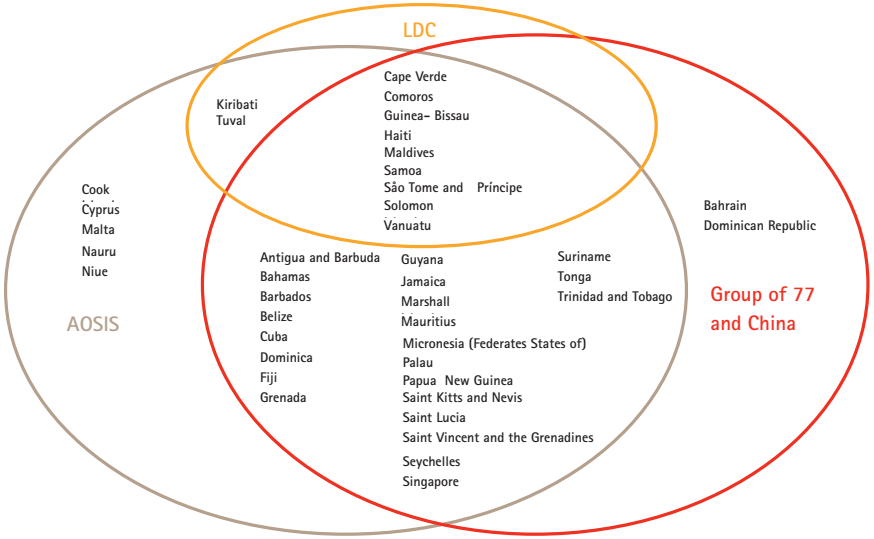
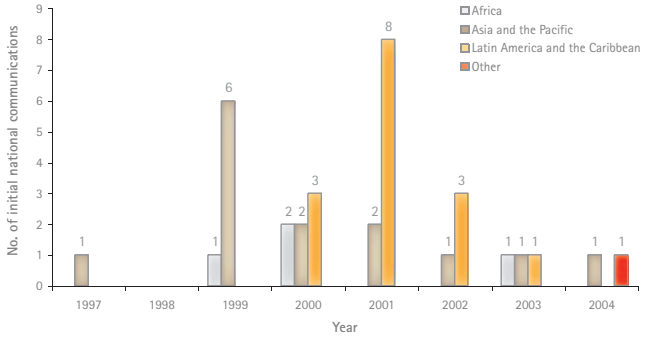


Figure 2: SIDS submission of initial national communications by year and by region



To meet their obligations under the UNFCCC, all Parties must report in national communications information on circumstances related to the achievements of the objective of the Convention and must detail their greenhouse gas (GHG) emissions as well as efforts to address climate change and report on their vulnerability and adaptation options.

SIDS were among the first to complete initial national communications and submit them to the Conference of the Parties (see figure 2). This report is based on the information provided in those national communications as well as from reports of the Intergovernmental Panel on Climate Change and the Global Environment Facility and other regional and bilateral financial and technical support facilities.

A profile of small island developing States

"Already, warming of Pacific ocean water of three degrees has been measured in the Pacific. Plankton – the tiny single cell plants and animals that are the basis of the ocean food web in northern latitudes and the source of at least half the oxygen we breathe – are dying. Zoo plankton in the northeast Pacific have declined by 80% since 1950. In the southern oceans, coral reefs are dying, perhaps because of ocean warming, threatening biological productivity in tropical seas."
"It is [therefore] not just island people who are at risk from climate change: 60% of humanity live in coastal areas and therefore share vulnerability to climate change and sea level rise. Low lying coastal areas in all countries are threatened, including agriculturally productive river deltas world wide."

Statement by H.E. T. Neroni Slade
(Samoa on behalf of AOSIS)
28 March - 7 April 1995, Berlin, Germany
(COP 1)

Although small island developing States are among the least responsible of all nations for climate change, they are likely to suffer strongly from its adverse effects and could in some cases even become uninhabitable. This is what makes them such a special case requiring the help and attention of the international community.

These island nations are found throughout the world, although most of them are located in the wider Caribbean and South Pacific regions. The land: sea ratios for the SIDS are largely skewed. Their Exclusive Economic Zones (EEZs) are often larger than their land area. Nauru's EEZ, for example, is nearly 15,000 times the size of its land area, whereas Samoa's is eight. Many SIDS – the Maldives, for example – have solely or mostly low-lying land areas; others, such as Haiti, have a varied terrain, including mountainous areas. Their population densities differ widely as well (see box 2).

Ninety per cent of the SIDS are in the tropics. Many are seasonally affected by extreme weather events – tropical storms, cyclones and hurricanes. Climate variability, droughts and flooding are also features of their weather pattern. El Niño Southern Oscillation events also produce dramatic changes in rainfall, rising sea levels and other weather-related phenomena.

Box 2. The widely varying population densities of small island developing States

An estimated 50 million people live in small island developing States, based on population data for various years covering the period 1990–2002. The average SIDS is fairly densely populated, yet the differences between countries in this respect are large. The largest country – Papua New Guinea – has a population density of about 1 inhabitant per square kilometre of land area whereas one of the smallest, Singapore, has nearing 5,000 persons per square kilometre.



SIDS benefit in different ways from an intimate relationship with the oceans. Singapore, for instance, makes use of its strategic geographic position within the global trading system. Other countries – the Marshall Islands and Tuvalu, to mention just two – depend on their fish resources. And for many SIDS, sea-related tourism has become a mainstay of the economy.

Almost all SIDS depend heavily on fossil fuels. The use of fossil fuels includes not only power production and the desalination of water, but also transport, including tourists as well as to move goods; the main source of foreign exchange; and the exploitation of marine resources. Some SIDS, for example Bahrain and Trinidad and Tobago, also produce and export fossil fuels.

Renewable sources of energy, such as fuelwood, sugarcane bagasse, hydropower and solar water heating, are also being exploited. Indeed, SIDS have a long history of renewable energy use in the agricultural sector, where in some countries wind turbines were traditionally used to pump water and drive machinery for such activities as pressing sugarcane. The use of renewable energy is often still directly linked to agriculture. Biomass, in the form of fuelwood and bagasse, mainly from the production of sugarcane, is the main source of renewable energy these days. Noteworthy is also the use of hydropower in Dominica and Haiti and the use of solar water heating in Antigua and Barbuda and Barbados. In the latter country some 35,000 solar water heaters are in use as a direct consequence of the government's incentives that encouraged their installation.

Many SIDS have considerable potential for further development of renewable energy by virtue of their location, an abundance of sunshine that gives rise to wind, and adequate rain and plant life that can be tapped for energy. In addition, the presence of geothermal springs, vents and other geo- and hydrothermal resources on land as well as in the ocean increases the potential sources of energy production in most SIDS. Future developments could therefore include the increased use of wind, solar and geothermal power as well as ocean thermal and tidal energy conversion. Efforts to increase the use of renewable energy, especially wind turbines, are commonly cited as one of the technology options for breaking SIDS reliance on fossil fuels.

Financial and technical support for small island developing States

"... my Government realizes that it is not going to be an easy task for us to implement the Convention without the cooperation of the developed countries. We request that financial assistance from bilateral and multilateral sources be made available and accessible for countries like the Republic of Vanuatu for programs that will enhance sustainable development and also contribute to the implementation of the Convention."

Statement by Hon. Dr. Edward Tambisari
(Republic of Vanuatu)
27 March - 7 April 1995, Berlin, Germany
(COP 1)

One of the principal channels of support for small island developing States (SIDS) in the area of climate change is the Global Environment Facility (GEF) Trust Fund. With resources made available through this channel, but also using resources of their own and those obtained from multilateral and bilateral sources, SIDS have been able to undertake a number of important activities designed not only to meet their reporting obligations under the Convention, but also to take early action in the area of climate change.

SIDS have sought and obtained resources for building their national capacities and institutions in areas relevant to climate change. Many countries have used these resources to establish climate change committees that can guide national efforts in this area, develop national climate change action plans and mitigation strategies, and initiate education, training, and public awareness campaigns designed to engage the general populace on the problem of climate change. Supported by this institutional setup, SIDS have been active in developing and participating in a number of regional cooperation activities designed to help build capacity for conducting vulnerability and adaptation assessments, to mainstream climate change consideration into developing planning, to cope and adapt to the adverse effects of climate change and to develop renewable energy sources.

One example of regional cooperation on climate change is the Caribbean Planning for Adaptation to Climate Change (CPACC) programme. With resources obtained from the GEF trust fund, Caribbean SIDS cooperated in identifying strategies to cope with adverse effects of climate change, particularly sea level rise. In addition, work was undertaken to develop an integrated management and planning framework for cost-effective responses and adaptation to climate change in coastal and marine areas, to provide training and institutional strengthening that could enhance regional and national capacities, and to identify and assess policy options. Based on the success of these initial activities, the Caribbean SIDS went on to create a sub-regional institution that will be dedicated to supporting action in the region on climate change.

Regional cooperation programmes, with the support of the GEF, are also under way in the area of renewable energy, in the Caribbean and the Pacific. These programmes are designed to remove barriers to renewable energy use and to facilitate the promotion of the widespread implementation of renewable energy technologies. With these programmes in place, the Pacific and Caribbean regions hope to increase the use of renewable energy in the years to come. In the Caribbean, for example, renewable energy provides less than 2 percent of the region's commercial electricity. The planned activities being undertaken, are projected to increase that figure to some 5 percent by 2015, resulting in an annual reduction of carbon dioxide emissions by some 680,000 tons.

In 2001, two new funds – the Least Developed Countries (LDC) Fund and the Special Climate Change Fund (SCCF) – were established, and an Adaptation Fund was set up under the Kyoto Protocol. Collectively, these constitute important new channels for mobilizing resources to

support the implementation of climate change activities in SIDS in addition to those available through the GEF Trust Fund, through bilateral and multilateral funding, and through private-sector investments.

Of the three funds, only the LDC Fund was operational by the end of 2002 – supporting, among other efforts, the preparation and implementation of national adaptation programmes of action (NAPAs). When completed, these will serve to identify key and urgent adaptation needs in LDCs, such as capacity-building, policy reform, integration of climate change considerations into sectoral policies, and project-level activities in key economic sectors. Total contributions of USD 32.5 million had been received; USD 11 million was spent to support the preparation of NAPAs. Ten SIDS that are also LDCs have received assistance in preparing these programmes of action. The GEF continues to mobilize additional resources to replenish the LDC Fund so that it can support the implementation of NAPA projects designed to address urgent and immediate climate-change-related action in eligible countries.

In 2003, the Conference of the Parties decided that the resources of the Special Climate Change Fund would initially be used to support priority activities in adaptation and technology transfer and in associated capacity-building. At the end of 2004, the SCCF became operational, and pledges of USD 34.7 million had been received. Ready to support eligible activities in early 2005, the SCCF becomes an important source of funding for action by SIDs in the areas of adaptation and technology transfer.

With the Kyoto Protocol's entry into force on February 16, 2005, two new and important sources of funding will become available to SIDS: the Adaptation Fund and the Clean Development Mechanism (CDM). The Adaptation Fund will be operationalized by the GEF with proceeds from CDM projects and with contributions from donor countries. Its resources will assist SIDS meet the costs of adaptation to the adverse effects of climate change.

The Clean Development Mechanism offers an opportunity to mobilize additional resources for the implementation of projects in SIDS that help mitigate climate change and at the same time advance sustainable development. It is expected that implementation of small-scale CDM projects, especially in the area of renewable energy, energy efficiency, fossil-fuel switching, agriculture, landfills, and low GHG emission vehicles, will channel additional resources to promote the transfer of environmentally safe and sound technology and know-how apart from those available under the GEF Trust Fund and the SCCF.

These are just a few examples of concrete actions being undertaken by SIDS both to contribute to the Climate Change Convention and to take steps to mitigate the inevitable impacts of climate change. Small island developing States contribute very little to global warming. On average, the SIDS emit just 1.5 per cent as much GHGs as industrial countries do.

Contributions to global warming

"We are not endowed with any natural resources. Our day-to-day energy need is totally dependent on imported fossil fuels. While not obligated to set emission control targets under the Convention, Singapore has already invested millions of dollars to contain our CO2 emissions."

" We have made conscious effort to limit greenhouse gas emissions due to power generation. Switching from fuel oil to natural gas is an effective measure to reduce CO2 emission."

"In the transport sector, we have actively discouraged private car ownership and promoted the use of public transport. As part of government's continual effort to help mitigate global warming, we have recently announced the introduction "green" vehicle tax incentive in 2001 to encourage the import of electric and hybrid vehicles."

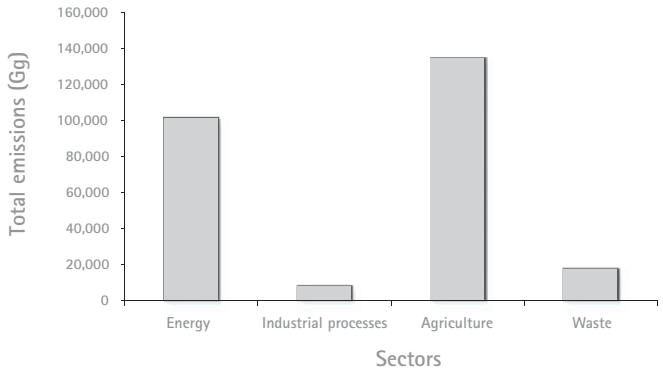
" On the energy demand side we have formed an interagency Committee on Energy Efficiency (IACEE) to take acritical look at Singapore's energy consumption"

Statement by Singapore
21 November 2000, The Hague, Netherlands
(COP 6)

SIDS have a very low level of GHG emissions

The total aggregated reported emissions from SIDS are extremely low, 258.5 million tonnes of carbon dioxide equivalent in 1994 (see table 1). In contrast, industrialized countries that are Parties to the UNFCCC emitted 16.7 billion tonnes of carbon dioxide equivalent that year.

Figure 3: Aggregate greenhouse gas emissions (excluding LUCF) for SIDS, by sectors



SIDS have a rather unusual distribution of GHG emissions

In the sectoral distribution of aggregated GHG emissions in SIDS, the agriculture and energy sectors together accounted for about 90 per cent of total emissions in 1994 (see figure 3). Emissions from the waste and industrial processes sectors were not insignificant, however.

The profile of the GHG emissions of SIDS is also quite different from that of industrial nations. In terms of aggregated emissions (in carbon dioxide equivalent) in 1994 (or the closest year available) nitrous oxide appears to be the largest GHG emitted (47 per cent of the total aggregated emissions), compared with carbon dioxide at 41 per cent, followed by methane (12 per cent). This is in sharp contrast to industrialized countries, where carbon dioxide is the dominant GHG.

SIDS have limited capacities to report on GHG emissions

The comprehensiveness of reporting on GHG inventories varies widely among all Parties to the Convention; in the case of SIDS, the full range of sectors – energy, industrial processes, agriculture, land-use change and forestry, and waste – is seldom included; generally only a few sectors are covered, mainly energy. The type of gas reported is also generally rather limited; sometimes only one or two gases are reported on, with carbon dioxide being the most common.

Table 1. Aggregate greenhouse gas emissions (excluding LUCF), small island developing States, 1994 or closest year

Region	Country	Aggregate emissions, by gas		
		CO_2	CH_4	N_2O
			(thousand tonnes)	
Africa	Cape Verde*	218	69	6
	Comoros	71	55	393
	Mauritius*	1 738	97	224
	Seychelles*	179	54	24
	Total Africa	**2 206**	**275**	**647**
Asia and The Pacific	Cook Islands	33	11	37
	Kiribati	19	9	-
	Maldives	129	24	-
	Marshall Islands***	-	-	-
	Micronesia (Federated States of)	236	7	3
	Nauru	28	7	0
	Niue	4 441	14	28
	Palau	86	32	7
	Papua New Guinea	1 141	90	3 782
	Samoa	102	69	389
	Singapore	26 800	-	59
	Solomon Islands	294	-	-
	Tuvalu	5	1	0
	Vanuatu	55	235	9
	Total Asia and the Pacific	**33 369**	**499**	**4314**
Latin America and the Caribbean	Antigua and Barbuda**	288	98	2
	Bahamas	1 866	21	310
	Barbados	1 913	1 788	50
	Belize	598	5 566	171
	Cuba	23 497	9 356	5 248
	Dominica	77	63	13
	Dominican Republic	15 003	4 660	778
	Grenada	135	1 471	1
	Guyana	1 446	885	375
	Haiti	157	2 455	2 297
	Jamaica	8 561	1 222	106 443
	Saint Kitts and Nevis	71	59	34
	Saint Lucia	269	596	22
	Saint Vincent and the Grenadines	95	62	222
	Trinidad and Tobago**	14 987	1 116	239
	Total LAC	**68 963**	**29 418**	**116 205**
Other	Malta	2 310	342	17
	Total other	**2 310**	**342**	**17**
Total SIDS	**258 565**	**106 848**	**30 534**	**121 183**
Total Annex I Parties (Industrialized countries)	**16 719 707**	**13 581 320**	**2 057 727**	**1 080 660**

* 1995 data.

** 1990 data.

*** Marshall Islands did not provide national estimates of its anthropogenic emissions by sources and removal by sinks of GHGs not controlled by the Montreal Protocol.

A special vulnerability to climate change

"The sea is our very close neighbour. In fact, on the island where I live, Funafuti, it is possible to throw a stone from one side of the island to the other. Our islands are very low lying. When a cyclone hits us there is no place to escape. We cannot climb any mountains or move away to take refuge. It is hard to describe the effects of a cyclonic storm surge when it washes right across our islands. I would not want to wish this experience on anyone. The devastation is beyond description ... This concern is so serious for our people, that the Cabinet, in which I am a member, has been exploring the possibility of buying land in a near-by country, in case we become refugees to the impacts of climate change."

Statement by Hon. Teleke P. Lauti
(Tuvalu)
November 2000, The Hague, Netherlands
(COP 6)

In spite of variations in geographical, physical, climatic, social, political, cultural and ethnic features and economic development, small island developing States share certain characteristics that underscore their overall vulnerability to climate change, climate variability and sea-level rise:

- Generally limited natural resources, with many already heavily stressed from unsustainable human activities
- A concentration of population, socio-economic activities, and infrastructure along the coastal zone
- High susceptibility to frequent and more intense tropical cyclones (hurricanes) and to associated storm surge, droughts, tsunamis and volcanic eruptions
- Dependence on water resources for freshwater supply that are highly sensitive to sea-level changes
- Relative isolation and great distance to major markets, affecting competitiveness in trade
- Extreme openness of small economies and high sensitivity to external shocks
- Generally high population densities and in some cases high population growth rates
- Inadequate infrastructure in most sectors
- Limited physical size, effectively eliminating some adaptation options to climate change and sea-level rise
- Insufficient financial, technical and institutional capacities, seriously limiting the capacity of SIDS to mitigate and adapt to any adverse impacts of climate change.

A few examples of the vulnerabilities in specific islands illustrate well this high level of susceptibility to the adverse impacts of climate change:

- In Barbados and many other islands, almost all foods, fuels, construction materials and other goods are imported
- In the Maldives and Papua New Guinea, some 50–80 per cent of the land area is less than 1 metre above mean sea level
- In the Seychelles, about 80 per cent of the infrastructure and population are found along the coast
- Critically limited resources are required to address pressing short-term environmental problems in Grenada
- In Palau, prolonged droughts are experienced during El Niño Southern Oscillation events
- Throughout the South Pacific region, frequent and more intense tropical cyclones, as well as climate-related and other extreme events, were experienced during the 1990s.

Due to the geographic location of the SIDS and the profound influences of oceanic circulation systems, natural precipitation varies from one year to the next much more than in other countries. This can lead to various forms of extreme rainfall events, such as droughts and floods, that have a wide range of adverse impacts – including some catastrophic damages – on natural and human systems.

Climate projections suggest that significant climate change and sea-level rise are expected in all regions during the twenty-first century. Increases in atmospheric concentrations of GHGs due to human activities over the

past 100 years will continue to alter the climate and related systems on Earth in the coming century, if not for longer. Subsequently, SIDS face the certain prospect of increased challenges to their efforts to achieve sustainable development.

Indeed, an ensemble of climate model simulations for seasonal temperature and rainfall changes in the four regions by the 2050s and 2080s project the following changes:

- Temperature increase is projected for all regions and for both seasons
- Warming over the Mediterranean and the Caribbean Sea areas is higher during northern hemisphere winters for both time periods, whereas warming in the other two regions exhibits different seasonal patterns for the 2050s and 2080s
- For the 2080s, SIDS in the Mediterranean area are projected to experience the highest warming, with surface air temperature rising by 3.9°C for December – February and 4.5°C for June – August
- Projections show a dominantly increased pattern in seasonal rainfall for the four regions, with islands in the Mediterranean area getting the most increase in rainfall during northern hemisphere winters (by the 2080s, 16 per cent higher than the 1961–1990 average level)
- The largest decline in seasonal rainfall is projected for SIDS in the Caribbean area, with a reduction during northern hemisphere summers of nearly 20 per cent.

These projected changes are likely to exacerbate the current climate-related stresses in various SIDS. Higher temperatures are expected to adversely affect the health of some island inhabitants who already suffer through heat waves and associated increased outbreaks of vector-borne diseases. The health of important marine species such as coral reefs will also suffer. Changes in seasonal rainfall patterns may take the form of more frequent and more intense droughts and floods for many of the already troubled SIDS.

Vulnerability and adaptation assessments undertaken by SIDS also support the prediction that sea level will rise worldwide as a consequence of climate change. This is consistent with the conclusions of the Third Assessment Report of the Intergovernmental Panel on Climate Change, which indicated that by the end of the twenty-first century global sea level will rise 9–88 centimetres depending on regional variations in ocean circulation and other geophysical conditions. Sea-level rise will vary across the planet, with some regions (such as the Pacific) experiencing a greater increase than the global average.

Although natural systems and people living in SIDS have developed a wide range of adaptive strategies and measures to cope with a certain degree of change in climate and sea level, in many of these nations the environment and various biological systems are already close to their tolerance limits or are experiencing climate-related stress. Their vulnerability to climate change – already high – thus worsens with each passing year.

Potential impacts of climate change

"The Maldives is an archipelago consisting of tiny islands scattered in a vast expanse of the Indian Ocean. Over 80% of the land area have less than one meter above mean sea level, climate change and its associated sea level rise would undoubtedly be a catastrophe and threaten the livelihood of the islanders in the Maldives alike many thousands of others in low-lying island states. Sixteen years ago in April 1987, Maldives experienced unusual high waves causing extensive damage to the islands. Two thirds of the whole Maldives, including the capital island, Malé, was inundated for two days causing extensive damage to the infrastructure. Male International Airport, the only gateway to the Maldives, was closed for two days, causing delays in receiving the relief assistance from the international community, cancellation of tourist arrivals and lot more."

Statement by Mr. Abdullahi Majeed
(Maldives)
11 December 2003, Milan, Italy
(COP 9 Round-Table)

Climate change is likely to have far-ranging effects on the environment and the economic prospects of small island developing States, as well as on the health of the people living in these areas.

Water resources

The availability of freshwater is a major limiting factor for economic and social development in the SIDS (see box 3). Many of these countries rely entirely on a single source of water supply, making them highly vulnerable to climatic and other environmental changes.

In island States where rainwater is the primary source of supply, water availability is sensitive to rainfall patterns and changes in storm tracks. A reduction in rainfall coupled with sea-level rise, changes in El Niño intensity and frequency, and changes in rainfall seasonality would decrease the volume of drinking water, reduce the size of the thin freshwater lens. Additional water management and related challenges due to climate variability, climate change and sea-level rise include increased flood risks, impeded drainage and the presence of elevated water tables.

The coastal environment

The loss of land along coastlines due to sea-level rise, especially on atolls and low limestone islands, is likely to disrupt all the economic and social sectors in these countries. Coastal erosion will have profound adverse impacts on the tourism industry and on infrastructure.

Box 3. Impacts of climate change, climate variability, and sea-level rise on water availability and quality in small island developing States

Climate change and sea-level rise are likely to threaten freshwater resources through saltwater intrusion within freshwater aquifers. The frequency and severity of droughts, as experienced in recent decades, may intensify in the future. Countries such as the Bahamas and Barbados, which are almost entirely dependent on groundwater supplies, will be seriously affected. Mauritius depends on groundwater for 60 per cent of its water supply for domestic, industrial and agricultural purposes. Boreholes situated near the coast will be at risk due to saltwater intrusion.

Water resources will be threatened by a combination of droughts and lower rates of recharge of the groundwater lens on most atolls, such as the Federated States of Micronesia, Kiribati and Tuvalu.

Sea-level rise, along with the indiscriminate extraction of freshwater from the well fields, will put this already threatened resource at even higher risk in SIDS that depend on the extraction of water from shallow freshwater lenses, as the Bahamas does.

"The older generation tells us that certain parts of the reefs were above water when they were young. Every year the storms are getting worse, both more intense and destructive. Sea water contaminates many of our precious fresh water lenses."

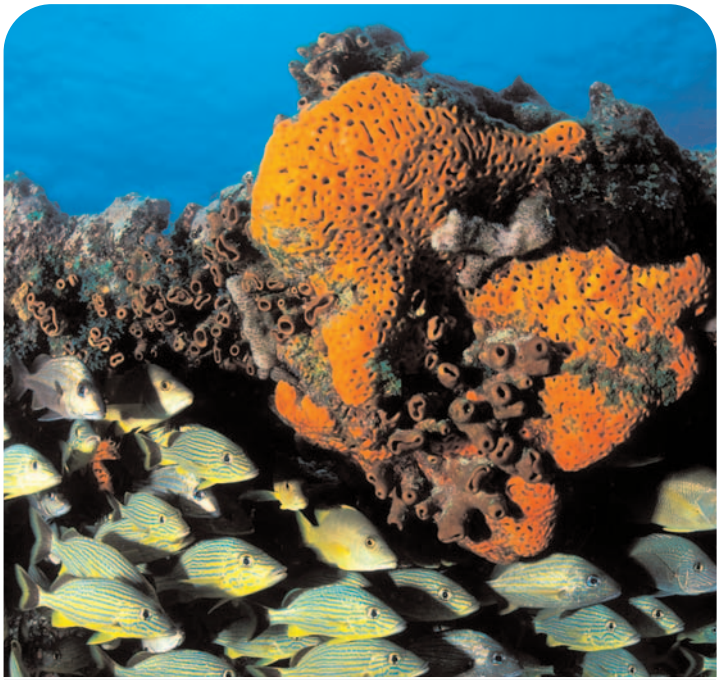
Statement by Hon. Tom D. Kijiner
(Marshall Islands)
6 April 1995, Berlin, Germany
(COP 1)

Human activities such as sand mining, coastal and beach erosion is already a problem on many islands – a problem that is likely to be exacerbated by sea-level rise. Papua New Guinea reports that 25 per cent of its existing shoreline has already been inundated. If sea level rises by 1 metre, the Maldives will disappear entirely, and in Grenada, up to 60 per cent of the beaches would disappear in some areas following a 50-centimetre sea-level rise.

Coral reefs have a huge influence on the lives of people in many SIDS. They function as natural breakwaters along the coasts of many tropical islands and they represent one of the most important natural resources for food, beach sand, and building materials. They also provide habitats for marine animals and reef fish, generating significant revenues for many island economies through tourists interested in snorkeling and scuba diving. On many islands, coral reefs are already facing threats from climate change and other stresses; Dominica, for example, reports that 15 per cent of its coral reef is showing some signs of bleaching.

Due to their narrow temperature tolerances, some species of corals currently live at or near their thermal limits. Projected increases in sea surface temperature suggest the thermal tolerance of reef-building corals will be exceeded within the next few decades. Moreover, the incidence of bleaching may rise rapidly (see box 4).

Mangrove forests, another coastal resource, have diverse and important ecological and socio-economic functions, providing protection against cyclones, storms, tides, storm



Box 4. Extreme weather events induced by sea-water warming as cause of large-scale coral bleaching

The 1998 El Niño caused sea-water temperatures to increase by 1.0–1.25°C in Palau over several weeks, which was followed by massive coral bleaching. During September 1998, the water temperature reached the level capable of inducing coral bleaching to a depth of 90 metres. Almost 70 per cent of Scleractinian corals were bleached at a 10–12 metre depth throughout Palau. Populations of some coral species declined by as much as 99 per cent, with an economic loss estimated at USD 91 million.

surges and the introduction of pests and exotic insects. They also function as nutrient sinks for animal and plant productivity, as soil stabilization forces, and as a source of wood products. However, many mangrove forests are under stress from excessive exploitation, reducing resilience to the projected rise in sea level (see box 5).

Agriculture and food security

Subsistence agriculture is vital to SIDS economies, nutritional status and social well-being, particularly the low-lying atoll countries where food security is a major concern. Currently, subsistence agricultural production on some islands is already under stress from, for example, a shortage of freshwater. With climate change, the growth of subsistence root crops and vegetables is likely to be affected by heat stress, by changes in soil moisture and evapotranspiration, and by changes in extreme weather events, such as tropical cyclones, floods and droughts. Moreover, sea-level rise and its consequent saline intrusion will have major impacts on crop production, especially in low islands and atolls in the Pacific, where all the crop agriculture is found on or near the coast (see box 6).

Fisheries resources make a significant contribution to the protein intake of island populations. In tropical islands, marine ecosystems such as coral reefs, sea grass communities and salt ponds are important forage sites for a variety of fish species. The availability of fish can be affected by changes in water temperatures and the distribution of food sources they depend on. The unfavourable effects of higher carbon dioxide

Box 5. Exacerbation of stresses on mangrove forests

Antigua and Barbuda is currently losing its mangrove ecosystems at an annual average rate of about 1.5–2 per cent, with a sea-level rise of 3–4 millimetres a year. Based on this, it is estimated that there will be few, if any, mangroves left in this nation by 2075, because the coastal slopes of most areas will not allow for landward retreat of these trees. If the sea level rises 10 millimetres a year, mangroves could disappear from Antigua and Barbuda by as early as 2030 or 2035.



concentrations on these ecosystems, coupled with ongoing widespread coral bleaching, pose serious threats to the resilience and livelihood in many small island States.

"The extreme rainfall of 1997 cost Seychelles several million dollars in loss of agriculture and infrastructure. This year, as a result of an anomalous warming of the sea, corals were extensively bleached. The effects are still seriously felt in fishery. And as I speak to you now, if current drought conditions persist, jobs will be lost through critical water-dependents industries, such as industrial tuna processing and tourism."

Statement by Seychelles
November 1998, Buenos Aires, Argentina
(COP 4)

Biodiversity

The long-term survival of the generally rich biodiversity on small islands has already been under threat from such human-related stresses as pollution, overexploitation and poor management. As in other regions, climate change will have direct and indirect impacts on the biodiversity of SIDS. Increases in atmospheric carbon dioxide would alter the composition of species and threaten the diversity of marine ecosystems such as coral reefs, the habitats of endangered species and the breeding sites of sea birds. Sea-level rise could put such species at considerable risk.



Box 6. Declines in food and fishery production expected

Unfavourable climatic conditions could be devastating to the banana industry and to the agricultural sector as a whole in St. Vincent and the Grenadines. Climate change, particularly changes in precipitation and atmospheric carbon dioxide concentration, is likely to result in changes in altitudinal zonation, species type, vegetation type and location. Moreover, sea-level rise and increased ocean temperatures coupled with marine pollution will have a substantial impact on the major nurseries of the fishing industry, such as mangroves and sea grass beds.

An increase in the frequency or intensity of El Niño events would adversely affect agricultural production, with the possibility of greater reliance on imported foods. Fish production has been reduced by up to 60 per cent in Grenada and in the Marshall Islands during an El Niño year.

Human settlements and infrastructure

In most SIDS, narrow coastal plains provide attractive locations for human settlements and a variety of infrastructure – social services, tourism facilities, airports, port facilities, roads and vital utilities – to support economic and social needs. With the projected rate of sea-level rise and changes in the patterns of extreme events such as storms and coastal flooding, these settlements and critical infrastructure will be at severe risk (see box 7). In some countries, particularly low islands and micro-atolls, resettlement outside the national boundary may have to be considered. Implementing this could become extremely complicated, however, especially for densely populated coastal lowlands. In extreme circumstances, some atolls may be abandoned altogether, which could be socially and culturally disruptive as well as resource-intensive and which may be well beyond what most of these atoll countries can afford.

Human health

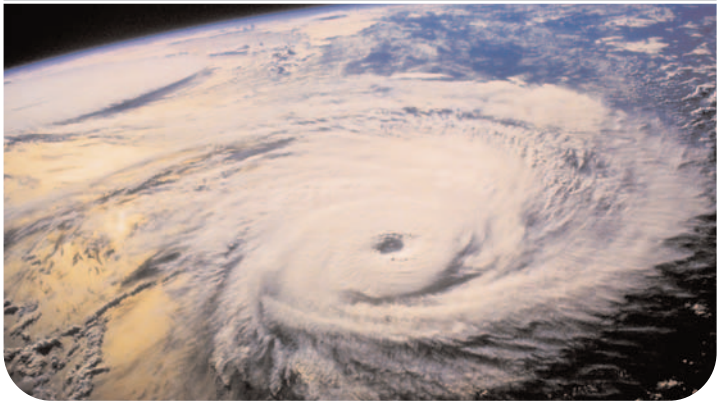
Many SIDS lie in the tropical zone, where the climate is favourable for the transmission of tropical diseases such as malaria, dengue, filariasis and schistosomiasis. In recent years, tropical islands have experienced high incidences of vector- and water-borne diseases that were attributed to changes in temperature and rainfall patterns, which may be linked to events such as El Niño, droughts and floods. With a warming climate and disrupted water supplies and sanitation systems due to droughts and cyclones, there could be even more of an increase in the incidence of

Box 7. Susceptibility of critically important settlements and infrastructure to extreme weather events

In Dominica, 90 per cent of the population lives along the coastal area. Most of these settlements have very little room for expansion except through hillside residential development – areas that are highly susceptible to the ravages of extreme events such as hurricanes.

All of the human settlement, industry and vital infrastructure of Kiribati, the Maldives, Marshall Islands and Tuvalu lie very close to the shoreline. Some islands are already severely affected, with losses not only of shoreline but also of houses, schools and other infrastructure. The Maldives will disappear entirely if the rate of sea-level rise exceeds the rate of coral growth and sand generation.

Most of the public infrastructure in Niue is situated on the western coast of the island, which is very susceptible to cyclone damage. Devastation by Cyclone Ofa in 1990 highlighted the vulnerability of the island; there was extensive damage to the general hospital, a hotel, a wharf and a number of private homes on the western coast.



these diseases. Malaria, for instance, is associated with a temperature above 22°C.

Outbreaks of water-borne diseases such as shigellosis, cryptosporidiosis, giardiasis, and amoebiasis could increase as a result of disruption of sewage and water supply systems. With changes in temperature and rainfall, some vectors could extend their current range, so there is likely to be wider transmission of some diseases (see box 8). The interior highlands of many islands are currently free of vectors that transmit malaria, dengue and other tropical diseases. They could become favourable breeding sites under climate change. An increase in the frequency and intensity in extreme weather events might also cause more physical injuries, as noted already in some Pacific island States.

" we pointed out that our region already suffers heavily from a high incidence of tropical cyclones, and that rising sea levels, coupled with the anticipated increases in the frequency, and intensity of these cyclones, as a result of global warming, would effectively devastate most, if not all, of our vital infrastructure, and threaten the lives of a majority of our population. In the short time since Kyoto, we have experienced two of the most devastating hurricanes the region has ever suffered – Georges and Mitch."

Statement by Hon. Vincent Lasse
(Trinidad and Tobago on behalf of CARICOM and Haiti)
12 November 1998, Buenos Aires, Argentina
(COP 4)

Box 8. Possibility of severe health problems due to extreme weather changes in rainfall patterns or temperatures

In Kiribati, any change in the pattern of rainy and dry seasons, in temperature and in the moisture content of waste could trigger an increase in diseases, and new diseases might occur. A warmer climate could exceed the tolerable climate conditions for humans.

Preliminary analysis of the incidences of the three most common diseases in Grenada – influenza, viral conjunctivitis and gastroenteritis – indicates a close correlation with July and annual precipitation. Significant positive correlations are observed for August precipitation and the incidence of viral conjunctivitis and influenza. Thus changes in rainfall patterns during such critical periods will have considerable impacts on human health, comfort and welfare.



Economic and socio-cultural resources

For most SIDS, tourism is an important contributor to national economies, foreign exchange inflows, and employment. For example, tourism accounts for 95 per cent of the gross national product in the Maldives, and 70 per cent of the labour force in the Bahamas is employed in the tourism sector.

Tourism could be disrupted through the loss of beaches, coastal inundation, degradation of coastal ecosystems, saline intrusion, damage to critical infrastructures, and the bleaching of coral reefs. Physical loss and damage to coasts and infrastructure in SIDS coupled with the projected milder winters in North America and northern Europe, would threaten the tourism industry by reducing the appeal of the islands as favourable destinations. In addition, the tourism industry may suffer from climate change mitigation measures, such as levies on aviation emissions which would increase the cost of air travel.

Climate change could have other direct and indirect economic and social impacts in some SIDS. The insurance industry is among the most sensitive to changes in the frequency and intensity of extreme weather events such as tropical storms and floods. Any increase in frequency or magnitude of such phenomena would trigger an increase in insurance premiums or lead to the withdrawal of coverage, as islands in the Caribbean have experienced after a series of severe hurricanes.

Climate change and sea-level rise will also put certain traditional island assets at risk, including subsistence, traditions, community structure, and coastal villages and settlements. Although it is difficult to attach a market value to some of these assets, they are of vital significance to SIDS. Sea-level rise and climate change, coupled with other environmental changes, have already been blamed for the destruction of some important and unique cultural and spiritual sites, coastal protected areas, and traditional heritage sites in several Pacific islands.

Adaptation and constraints to developing adaptive capacity

"I believe the experiences of our nation is quite similar to those of other small island developing States; and it means that we've already begun to experience the effects of climate change that for the most part, industrialized countries have brought upon us. The fear of submergence is not mere science fiction though that is all too easy for sceptics to dismiss.
I have no doubt that at current levels of emissions of greenhouse gases (or even at levels where there is only a nominal decrease in the level of emissions of greenhouse gases) submergence is a possibility. The primary point is, however, that a long, long time before that point is reached, our reefs could be dead, our fishes fleeing, our groundwater completely salinated, our food crops depleted and our islands made inhabitable. Needless to say, our economies destroyed."

Statement by Hon. Isaac V. Figir
(Federated States of Micronesia)
30 March 1995, Berlin, Germany
(COP 1)

Enhancing adaptive capacity is critical for the small island developing States if they are to meet the challenges of projected climate change and sea-level rise. Yet climate change is just one of many pressing problems that most SIDS face. Their socio-economic concerns include poverty alleviation, high unemployment, and the improvement of housing, education and health care facilities – all of which often compete for the slender resources available. Under these circumstances, progress in adaptation to climate change will almost certainly require the integration of appropriate risk reduction strategies with other sectoral policy initiatives in areas such as sustainable development planning, disaster prevention and management, integrated coastal management, and health care planning (see box 9).

SIDS recognize that adapting to climate change and variability could be costly and that in some cases it may require changes in societal norms and behaviour. Given the wide range of uncertainties associated with climate change and sea-level projections and with vulnerability and adaptation assessments, however, a no-regrets principle is important in order to use and manage limited resources in a sustainable manner and to cope with the many changing conditions – including climate change – in SIDS.

In spite of the wide range of adaptation options that could be successfully implemented in the SIDS, some fundamental constraints limit the choices of options and their implementation. Broadly, these barriers fall into three categories:

Box 9. Examples of adaptation measures identified by some small island developing States

- **Agriculture** – management and infrastructure development (Mauritius)
- **Water resources** – more efficient management of both demand and supply; improved monitoring and forecasting systems for floods and droughts (Seychelles); desalination of sea water (Federated States of Micronesia, Malta)
- **Human settlement and infrastructure** – hazard mapping; improved forecasting and early warning systems; insurance provision (Antigua and Barbuda)
- **Public health** – development of a health surveillance and forecast system; strengthening of data collection and reporting systems; vaccination campaigns and health education (Saint Kitts and Nevis)
- **Tourism** – protection of essential facilities and infrastructure as part of the Integrated Coastal Zone Management strategy (Barbados, Grenada, Jamaica, Saint Lucia and Singapore)
- **Coastal zone** – integrated, sustainable coastal zone resource management (Dominica)

"As an island State, we are at greater ecological and economical risks associated with adverse effects of climate change. We cannot over emphasize what Mauritius stands to lose if climate change problems are not addressed adequately and in a timely manner. The threat to agriculture, tourism and fisheries, three of the main pillars of our economy, cannot be overestimated."

Statement by Hon. R. A. Bhagwan
(Mauritius)
21 November 2000, The Hague, Netherlands
(COP 6)

Inadequate data or information and technical capacity for timely and effective adaptation planning

In most SIDS, there is a lack of baseline information for understanding the complex interplay between and within natural and human systems in small islands. There is also a considerable gap in the provision of information on likely changes in climate and human systems at the small-island scale. Consequently, most SIDS have not yet been able to undertake an in-depth, nationwide climate change impact and vulnerability assessment in an integrated manner. Without such national assessments as a sound basis for designing and planning adaptation policies, strategies and programmes, decisions on adaptation will be problematic.

Weak institutional capacity

Given the complex interactions and feedbacks between natural and human systems, any decisions on adaptation strategies must take an integrated approach across different sectors. With SIDS facing a variety of pressing economic and social challenges, however, there is an urgent need for a well-structured institutional framework to address climate change adaptation issues across sectors and scales. Hence, strengthening institutional capacity remains an important prerequisite for the effective planning and implementation of adaptation strategies at national level.



Limited financial resources

Some of the adaptation options identified by SIDS may be costly and beyond their financial capacity (see box 10). The governments of these countries will therefore need international assistance to facilitate more detailed research into traditional, natural and less intrusive (and generally less costly) forms of adaptation.

Box 10. Examples of projected costs of adaptation measures

Protecting Jamaica's coastline from impacts of a sea-level rise of 1 metre is estimated to cost USD 462 million annually – 19 per cent of the country's GDP.

In order to protect Male, the capital of the Maldives, from flooding and the impact of large waves, a system of protective barriers (called tetrapods) was built at a cost of USD 4,000 per metre. Although this was largely financed by the Government of Japan, the project diverted much-needed development aid from other key socio-economic priorities. With projected changes in climate and sea level, maintaining and enhancing such protective structures will be difficult with only domestic financial resources.

"As an island nation, Sao Tome and Principe continues to see our very existence threatened by global warming. Our shorelines erode, our national territory shrinks as the seas rise. Is my small country to end up nothing but a tiny volcanic peak sticking up above the waves with the last of our people clinging to the land left unclaimed by the rising sea? The Kyoto Protocol must be implemented by all for the benefit of all."

Fradique Bandeira de Melo de Menezes
President, Sao Tome and Principe
24 September 2004, UN General Assembly 59 session

"Our Pacific island nations, including my own country, know from bitter experience of cyclones that regularly batter our region, of the disheartening effect of disasters in setting back in a matter of hours hard-earned development achievements of many years. SIDS concerns and the vulnerability of our nations are therefore quite real. While we accept the primary responsibility for achieving the goals of the [Barbados] Programme of Action, the reality is that the support of the international community is indispensable to success."

Tuila'Epa Sailele Malielegaoi
Prime Minister, Samoa
24 September 2004, UN General Assembly 59 session

"The catastrophic events of the present hurricane season bring into sharper focus yet another dimension of the vulnerability of Caribbean countries. The January 2005 International Meeting in Mauritius to review the implementation of the Barbados Plan of Action must seek to comprehensively address the new and emerging threats to the sustainable development of small island developing States...[A] whole new set of security issues have now arisen in the Caribbean as a result of these developments and the International Community might wish to take note."

Patrick Manning
Prime Minister, Trinidad and Tobago
24 September 2004, UN General Assembly 59 session

climate change

small island developing States

Climate Change Secretariat
Martin-Luther-King-Strasse 8
53175 Bonn, Germany

January 2005

Annex 475

International Guidelines for the Management of Deep-sea Fisheries in the High Seas, SPRFMO-VI-SWG-INF01, *Food and Agriculture Organization of the United Nations,* 29 August 2008

September 2008

منظمة الأغذية والزراعة للأمم المتحدة | 联合国粮食及农业组织 | Food and Agriculture Organization of the United Nations | Organisation des Nations Unies pour l'alimentation et l'agriculture | Продовольственная и сельскохозяйственная организация Объединенных Наций | Organización de las Naciones Unidas para la Agricultura y la Alimentación

INTERNATIONAL GUIDELINES FOR THE MANAGEMENT OF DEEP-SEA FISHERIES IN THE HIGH SEAS

This document is the Final Version of the International Guidelines as adopted by the Technical Consultation on August 29th 2008.

International Guidelines for the Management of Deep-sea Fisheries in the High Seas[1]

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[1] Annex F of the Report of the Technical Consultation on International Guidelines for the Management of Deep-sea Fisheries in the High Seas. Rome, 4–8 February and 25-29 August 2008.

ACRONYMS AND ABBREVIATIONS

COFI	FAO Committee on Fisheries
Compliance Agreement	Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas
DSFs	Deep-sea fisheries (as defined by paragraph 8)
EAF	Ecosystem Approach to Fisheries
FAO	Food and Agriculture Organization of the United Nations
IPOA	FAO International Plan of Action
IUU	Illegal, unreported and unregulated fishing
MCS	Monitoring, control and surveillance
RFMO/As	Regional fisheries management organizations and arrangements
NGO	Non-governmental organization
The Code	1995 FAO Code of Conduct for Responsible Fisheries
UNGA	United Nations General Assembly
VME	Vulnerable marine ecosystem
VMS	Vessel monitoring systems
1982 UN Convention	United Nations Convention on the Law of the Sea Of 10 December 1982
1995 UN Fish Stocks Agreement	Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks

1 PREAMBLE

1. These International Guidelines for the Management of Deep-sea Fisheries in the High Seas were developed at the request of the Committee on Fisheries (COFI) of the Food and Agriculture Organization of the United Nations (FAO), at its twenty-seventh session (March 2007), in order to assist States and regional fisheries management organizations and arrangements (RFMO/As) in sustainably managing deep-sea fisheries and in implementing the United Nations General Assembly (UNGA) Resolution 61/105, paragraphs 76-95, concerning responsible fisheries in the marine ecosystem.

2. COFI also agreed that the Guidelines "should include standards and criteria for identifying vulnerable marine ecosystems in areas beyond national jurisdiction and identify the potential impacts of fishing activities on such ecosystems, in order to facilitate the adoption and the implementation of conservation and management measures by RFMO/As and flag States (pursuant to paragraphs 83 to 86 of the Resolution)".

3. In addition to the convening of an Expert Consultation on Deep-sea Fisheries in the High Seas (Bangkok, Thailand, 21 to 23 November 2006), which provided important inputs, successive steps to develop the Guidelines were as follows: (i) an Expert Consultation (Bangkok, Thailand, 11 to 14 September 2007), to proceed to an initial and technical review of a first draft of the Guidelines and (ii) a Technical Consultation held in February and August 2008, to discuss the Guidelines from a policy perspective and finalize the document.

4. Workshops on Vulnerable Ecosystems and Destructive Fishing in Deep-sea Fisheries (Rome, Italy, 26 to 29 June 2007) and on Data and Knowledge in Deep-sea Fisheries in the High Seas (Rome, Italy, 5 to 7 November 2007) have also been held and provided insight on important issues.

5. These Guidelines have been developed for fisheries exploiting deep-sea fish stocks, in a targeted or incidental manner, in areas beyond national jurisdiction, including fisheries with the potential to have significant adverse impacts on vulnerable marine ecosystems (VMEs).

6. The role of the Guidelines is to provide tools, including guidance on their application, to facilitate and encourage the efforts of States and RFMO/As towards sustainable use of marine living resources exploited by deep-sea fisheries, the prevention of significant adverse impacts on deep-sea VMEs and the protection of marine biodiversity that these ecosystems contain.

7. These Guidelines are to be interpreted and applied in conformity with the relevant rules of international law, as reflected in the United Nations Convention on the Law of the Sea of 10 December 1982 (1982 UN Convention)[2]. Nothing in these Guidelines prejudices the rights, jurisdiction and duties of States under international law as reflected in the Convention.

2 SCOPE AND PRINCIPLES

8. These Guidelines have been developed for fisheries that occur in areas beyond national jurisdiction and have the following characteristics:

i. the total catch (everything brought up by the gear) includes species that can only sustain low exploitation rates; and

[2] References in these guidelines to the 1982 UN Convention, the 1995 UN Fish Stocks Agreement and other international treaties do not prejudice the position of any State with respect to signature, ratification or accession to those instruments.

ii. the fishing gear is likely to contact the seafloor during the normal course of fishing operations.

States and RFMO/As should consider, as appropriate, the application of elements of these Guidelines to similar fisheries in areas beyond national jurisdiction, including those targeting medium productivity species.

9. For the purpose of these Guidelines, the fisheries described in paragraph 8 shall be referred to as "deep-sea fisheries" (DSFs).

10. Coastal States may apply these Guidelines within their national jurisdiction, as appropriate.

11. The main objectives of the management of DSFs are to promote responsible fisheries that provide economic opportunities while ensuring the conservation of marine living resources and the protection of marine biodiversity, by:

i. ensuring the long-term conservation and sustainable use of marine living resources in the deep seas; and

ii. preventing significant adverse impacts on VMEs.

12. In order to achieve these objectives, States and RFMO/As should:

i. adopt and implement measures:
   - in accordance with the precautionary approach, as reflected in Article 6 of the 1995 UN Fish Stock Agreement and set out in Article 6.5 and 7.5 of the 1995 FAO Code of Conduct for Responsible Fisheries (the Code);
   - in accordance with an ecosystem approach to fisheries (EAF);
   - in conformity with the relevant rules of international law, in particular as reflected in the 1982 UN Convention; and
   - in a manner consistent with other relevant international instruments.

ii. identify areas where VMEs are known or likely to occur; and

iii. take action using the best information available.

3 DESCRIPTION OF KEY CONCEPTS

3.1 Characteristics of species exploited by deep-sea fisheries

13. Many marine living resources exploited by DSFs in the high seas have biological characteristics that create specific challenges for their sustainable utilization and exploitation. These include: (i) maturation at relatively old ages; (ii) slow growth; (iii) long life expectancies; (iv) low natural mortality rates; (v) intermittent recruitment of successful year classes; and (vi) spawning that may not occur every year. As a result, many deep-sea marine living resources have low productivity and are only able to sustain very low exploitation rates. Also, when these resources are depleted, recovery is expected to be long and is not assured. The great depths at which marine living resources are caught by DSFs in the high seas pose additional scientific and technical challenges in providing scientific support for management. Together these factors mean that assessment and management have higher costs and are subject to greater uncertainty.

3.2 Vulnerable marine ecosystems

14. Vulnerability is related to the likelihood that a population, community, or habitat will experience substantial alteration from short-term or chronic disturbance, and the likelihood that it would recover and in what time frame. These are, in turn, related to the characteristics of the ecosystems themselves, especially biological and structural aspects. VME features may be physically or functionally fragile.

The most vulnerable ecosystems are those that are both easily disturbed and very slow to recover, or may never recover.

15. The vulnerability of populations, communities and habitats must be assessed relative to specific threats. Some features, particularly those that are physically fragile or inherently rare, may be vulnerable to most forms of disturbance, but the vulnerability of some populations, communities and habitats may vary greatly depending on the type of fishing gear used or the kind of disturbance experienced.

16. The risks to a marine ecosystem are determined by its vulnerability, the probability of a threat occurring and the mitigation means applied to the threat.

3.3 Significant adverse impacts

17. Significant adverse impacts are those that compromise ecosystem integrity (i.e. ecosystem structure or function) in a manner that: (i) impairs the ability of affected populations to replace themselves; (ii) degrades the long-term natural productivity of habitats; or (iii) causes, on more than a temporary basis, significant loss of species richness, habitat or community types. Impacts should be evaluated individually, in combination and cumulatively.

18. When determining the scale and significance of an impact, the following six factors should be considered:

i. the intensity or severity of the impact at the specific site being affected;
ii. the spatial extent of the impact relative to the availability of the habitat type affected;
iii. the sensitivity/vulnerability of the ecosystem to the impact;
iv. the ability of an ecosystem to recover from harm, and the rate of such recovery;
v. the extent to which ecosystem functions may be altered by the impact; and
vi. the timing and duration of the impact relative to the period in which a species needs the habitat during one or more of its life-history stages.

19. Temporary impacts are those that are limited in duration and that allow the particular ecosystem to recover over an acceptable time frame. Such time frames should be decided on a case-by-case basis and should be in the order of 5-20 years, taking into account the specific features of the populations and ecosystems.

20. In determining whether an impact is temporary, both the duration and the frequency at which an impact is repeated should be considered. If the interval between the expected disturbance of a habitat is shorter than the recovery time, the impact should be considered more than temporary. In circumstances of limited information, States and RFMO/As should apply the precautionary approach in their determinations regarding the nature and duration of impacts.

4 GOVERNANCE AND MANAGEMENT

4.1 General management considerations

21. In addition to the considerations in paragraph 12, States and RFMO/As should also recognise the need, in managing DSFs, to do so in a manner consistent with the Code and the general principles set forth in the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (1995 UN Fish Stocks Agreement) and to, *inter alia*:

i. adopt measures necessary to ensure the conservation of target and non-target species, including relevant reference points as referred to in the Code under Article 7.5.3, as well

as measures for the prevention of significant adverse impacts on VMEs and the protection of the marine biodiversity that these ecosystems contain;

ii. identify areas or features where VMEs are known or likely to occur, and the location of fisheries in relation to these areas and features;

iii. develop data collection and research programmes to assess the impact of fishing on target and non-target species and their environment;

iv. base the management of DSFs on the best scientific and technical information available taking into account fishers knowledge, where appropriate;

v. develop and use selective and cost-effective fishing methods and promote efforts to further improve such selectivity, recognizing the difficulties of managing fisheries with mixed species or high bycatch;

vi. implement and enforce conservation and management measures through effective monitoring, control and surveillance (MCS);

vii. take appropriate measures to address the problems of overcapacity, overfishing and illegal, unreported, and unregulated (IUU) fishing, in accordance with the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA – IUU) and the International Plan of Action for the Management of Fishing Capacity (IPOA – Capacity) ; and

viii. ensure transparency and public dissemination of information, in accordance with appropriate standards for confidentiality, as well as enable participation of relevant stakeholders.

22. States and RFMO/As should ensure that measures for the sustainable conservation and management of DSFs, the prevention of significant adverse impacts on VMEs and protection of the marine biodiversity that these ecosystems contain are adopted and implemented consistent with the precautionary approach.

23. DSFs should be rigorously managed throughout all the stages of their development: experimental, exploratory and established. In recognition of the potential vulnerability of deep-sea resources and their ecosystems, conservation and management measures for DSFs should ensure that, while knowledge is low, harvest rates are kept low enough to minimise risk to sustainability and harvests only increase as knowledge, management capacity and MCS increase.

4.2 Governance framework

24. States, acting in their capacity as flag States, port States, importing or exporting (market) States or when exercising jurisdiction over their nationals, should contribute to the attainment of the objectives stated in paragraph 11.

25. Nothing in these Guidelines pertaining to the management of DSFs in the high seas above the continental shelf by States and RFMO/As is to prejudice the sovereign rights of the coastal State over that shelf and the exercise of the coastal State jurisdiction with regard to that shelf, under international law as reflected in 1982 UN Convention.

26. States should establish and implement national policy, legal and institutional frameworks for the effective management of DSFs, including the prevention of significant adverse impacts on VMEs and in order to be able to implement measures agreed by RFMO/As in which they participate.

27. States should strengthen existing RFMO/As which have the competence to manage and regulate DSFs and their impacts on VMEs, including through incorporating established principles of relevant international law and related instruments into the mandates of such organizations or arrangements.

28. Where no such organization or arrangement exists, States should urgently cooperate to establish new RFMO/As, where necessary and appropriate, with the competence to manage and regulate DSFs and their impacts on VMEs. Prior to the establishment of such a new RFMO/A, States participating in the negotiations should cooperate to adopt and implement interim conservation and management measures to ensure sustainable management of DSFs in the long-term and to prevent significant adverse impacts on VMEs, taking full account of these Guidelines.

29. RFMO/As should develop mechanisms for communication, cooperation and coordination among themselves, as well as with relevant international organizations and scientific bodies.

5 MANAGEMENT AND CONSERVATION STEPS

5.1 Data, reporting and assessment

30. States, RFMO/As and FAO should implement these Guidelines in accordance with their relevant protocols governing data confidentiality.

Data collection and reporting

31. States and RFMO/As should, where necessary, develop, adopt and publish standardized and consistent data collection procedures and protocols, including standardized logbooks and survey methodologies.

32. Data collection programmes developed by States and competent RFMO/As should cover all stages of fishery development and should include, as far as practicable, data on historical stages of the fishery or on past fisheries in the area. Sufficiently fine-scaled data are required as a basis for the assessment of stock status and impacts on VMEs. In addition, fishery-independent research surveys are encouraged, in particular to provide relevant information on VMEs and how they are affected by anthropogenic activities.

33. Data collection programmes should also include socio-economic surveys on, *inter alia*, catches, value of landings and employment in the harvesting and processing sectors in DSFs, in order to facilitate analyses such as value-added and multiplier impacts on investment and employment as well as economic impacts of regulatory measures. Guidelines for the collection of such data should be developed.

34. Where a RFMO/A exists, States should submit the data they collect on DSFs to that RFMO/A at the appropriate resolution for stock assessment and evaluation of impacts of fisheries on VMEs, which in turn should submit aggregated data to FAO. Where a RFMO/A does not exist, States should submit such data directly to FAO.

35. States individually, or collaboratively through RFMO/As where they exist, should monitor and report the location and activities of vessels flying their flag on as close to real-time as possible. It is highly desirable that electronic data collection and reporting systems be used.

36. National and international training programmes for fishers and scientific observers should be used to improve catch identification and biological data collection, including the use of existing FAO material for the identification of commercial species, and the development of field manuals for the identification of non-commercial species, particularly for benthic invertebrates. FAO should provide support to the development and coordination of such programmes.

37. States and RFMO/As should cooperate in international efforts to collate biogeographic information, including oceanographic parameters, and make use of this information, as appropriate, in their assessment and management of DSFs.

38. States and RFMO/As should specify, obtain and apply the information required for adaptive management to prevent significant adverse impacts on VMEs, including the use of indicators and benchmarks, where appropriate.

39. States and RFMO/As should ensure that data reporting and analysis is as transparent as possible to facilitate review of the effectiveness of management of DSFs and protection of VMEs.

Stock assessment

40. Appropriate monitoring and assessment techniques are needed to reliably determine the status of stocks of low-productivity species which possess the characteristics described in paragraph 13 of these Guidelines. In light of data limitations regarding many deep-sea species, lower cost or innovative methods based on simpler forms of monitoring and assessment need to be developed. Such techniques should quantify uncertainty in stock assessments, including that resulting from such data limitations and simplified approaches.

41. States and RFMO/As should, as appropriate, collaborate in assessing deep-sea stocks throughout their range of distribution.

5.2 Identifying vulnerable marine ecosystems and assessing significant adverse impacts

42. A marine ecosystem should be classified as vulnerable based on the characteristics that it possesses. The following list of characteristics should be used as criteria in the identification of VMEs.

i. Uniqueness or rarity – an area or ecosystem that is unique or that contains rare species whose loss could not be compensated for by similar areas or ecosystems. These include:
   - habitats that contain endemic species;
   - habitats of rare, threatened or endangered species that occur only in discrete areas; or
   - nurseries or discrete feeding, breeding, or spawning areas.

ii. Functional significance of the habitat – discrete areas or habitats that are necessary for the survival, function, spawning/reproduction or recovery of fish stocks, particular life-history stages (e.g. nursery grounds or rearing areas), or of rare, threatened or endangered marine species.

iii. Fragility – an ecosystem that is highly susceptible to degradation by anthropogenic activities.

iv. Life-history traits of component species that make recovery difficult – ecosystems that are characterized by populations or assemblages of species with one or more of the following characteristics:
   - slow growth rates;
   - late age of maturity;
   - low or unpredictable recruitment; or
   - long-lived.

v. Structural complexity – an ecosystem that is characterized by complex physical structures created by significant concentrations of biotic and abiotic features. In these ecosystems, ecological processes are usually highly dependent on these structured systems. Further, such ecosystems often have high diversity, which is dependent on the structuring organisms.

Examples of potentially vulnerable species groups, communities and habitats, as well as features that potentially support them are contained in Annex 1.

43. These criteria should be adapted and additional criteria should be developed as experience and knowledge accumulate, or to address particular local or regional needs.

44. As a necessary step toward the identification of VMEs, States and RFMO/As, and as appropriate FAO, should assemble and analyse relevant information on areas under the competence of such RFMO/As or where vessels under the jurisdiction of such States are engaged in DSFs or where new or expanded DSFs are contemplated.

45. Where site-specific information is lacking, other information that is relevant to inferring the likely presence of vulnerable populations, communities and habitats should be used.

46. When designating an ecosystem as vulnerable, habitats and ecosystems should be evaluated against the criteria presented in paragraph 42, individually or in combination, using the best available scientific and technical information. Characteristics should be weighted according to their relative contribution to an ecosystem's vulnerability.

47. Flag States and RFMO/As should conduct assessments to establish if deep-sea fishing activities are likely to produce significant adverse impacts in a given area. Such an impact assessment should address, *inter alia*:

i. type(s) of fishing conducted or contemplated, including vessels and gear types, fishing areas, target and potential bycatch species, fishing effort levels and duration of fishing (harvesting plan);

ii. best available scientific and technical information on the current state of fishery resources and baseline information on the ecosystems, habitats and communities in the fishing area, against which future changes are to be compared;

iii. identification, description and mapping of VMEs known or likely to occur in the fishing area;

iv. data and methods used to identify, describe and assess the impacts of the activity, the identification of gaps in knowledge, and an evaluation of uncertainties in the information presented in the assessment;

v. identification, description and evaluation of the occurrence, scale and duration of likely impacts, including cumulative impacts of activities covered by the assessment on VMEs and low-productivity fishery resources in the fishing area;

vi. risk assessment of likely impacts by the fishing operations to determine which impacts are likely to be significant adverse impacts, particularly impacts on VMEs and low-productivity fishery resources; and

vii. the proposed mitigation and management measures to be used to prevent significant adverse impacts on VMEs and ensure long-term conservation and sustainable utilization of low-productivity fishery resources, and the measures to be used to monitor effects of the fishing operations.

48. Risk assessments referred to in paragraph 47 (vi) above should take into account, as appropriate, differing conditions prevailing in areas where DSFs are well established and in areas where DSFs have not taken place or only occur occasionally.

49. In conducting impact assessments, States and RFMO/As should consider, as appropriate, the information referred to in these Guidelines, as well as relevant information from similar or related fisheries, species and ecosystems. Notwithstanding paragraph 34, it should be recognised that there may be circumstances in which States may have to rely on information and data obtained only from vessels flying their flags or their own research activities when assessing DSFs that take place in areas where no competent RFMO/A is in place.

50. RFMO/As should develop an appropriate mechanism for reviewing assessments, determinations and management measures, including evaluation and advice by a scientific committee, other appropriate body or, as appropriate, a relevant multi-lateral body, including on whether the deep-sea fishing activity would have significant adverse impacts on VMEs and, if so, whether proposed or additional mitigation measures would prevent such impacts.

51. States, in accordance with domestic laws, and RFMO/As should make publicly available: (i) impact assessments as described in paragraph 47; (ii) existing and proposed conservation and management measures; and (iii) advice and recommendations provided by the appropriate RFMO/A scientific or technical committee, or other relevant body.

52. For areas not regulated by a RFMO/A, States should, on an annual basis, submit their impact assessments as well as any existing or proposed conservation and management measures to FAO, which should make them publicly available.

53. Where an assessment concludes that the area does not contain VMEs, or that significant adverse impacts are not likely, such assessments should be repeated when there have been significant changes to the fishery or other activities in the area, or when natural processes are thought to have undergone significant changes.

5.3 Enforcement and compliance

54. MCS frameworks should be developed and implemented as vital components for regional and national conservation and management measures for DSFs. States, both individually and cooperatively through RFMO/As, should work to implement effective MCS frameworks. States and RFMO/As should ensure compliance with conservation and management measures for DSFs through effective MCS programmes, which may include, *inter alia*, on-board observers, electronic monitoring and satellite-based vessel monitoring systems (VMS) in order to provide information on the location of fishing vessels engaged in DSFs, better assess fishing effort by gear, verify catch data, improve compliance with temporal and spatial management measures and provide sufficient evidence to document infractions. Such frameworks should ensure that all DSFs fishing operations are effectively monitored. States are encouraged to participate in the voluntary International Monitoring, Control and Surveillance Network for Fisheries-Related Activities.

55. National or international cooperative observer programmes should be implemented for all DSFs. Observer coverage for established fisheries, at levels adequate to ensure effective monitoring and assessment and in combination with other MCS tools, should be determined by RFMO/As with competence over those fisheries. Higher levels of coverage are required, in particular for experimental and exploratory stages of a fishery's development under a RFMO/A and for fisheries outside of a RFMO/A. In the latter case, levels of coverage should remain high until measures in place to manage these fisheries and prevent significant adverse impacts are evaluated and determined to be effective.

56. States should maintain and periodically update vessel registers or records to document changes in fleet characteristics. Registers or records of vessels authorised to fish should contain detailed information on each vessel including, at a minimum: length, tonnage, types of gear, and the areas, fisheries and species for which the vessels are authorized to fish, and whether the vessels are authorized for DSFs. Flag States should ensure that all vessels conducting DSFs have a permanent identification (such as an International Maritime Organization number).

57. States should submit vessel register or record data on at least an annual basis to RFMO/As, where applicable, or, for areas where RFMO/As do not exist, to FAO together with information on the measures they have adopted to regulate the activities of such vessels. RFMO/As and FAO should make such data and information publicly available by FAO Statistical Area.

58. States should adopt and implement national legislation and measures aimed at preventing, deterring and eliminating IUU fishing in DSFs, including using the IPOA – IUU, the 2005 FAO Model Scheme on Port State Measures to Combat Illegal, Unreported and Unregulated Fishing and other relevant instruments.

59. States and RFMO/As should cooperate to prevent, deter and eliminate IUU fishing in DSFs, and to take action related to IUU vessels and their listing.

60. States should adopt and implement, consistent with international law and in a transparent and non-discriminatory manner, trade-related measures, such as catch and trade documentation schemes, in order to:

i. enhance their ability to identify vessels and their DSF catch harvested outside or in contravention of applicable conservation and management measures; and

ii. adopt measures in respect of IUU vessels and catches from DSFs including, as appropriate, measures to prevent products from IUU DSFs from entering international trade.

States should actively promote wide international cooperation in order to attain such goals.

5.4 Management and conservation tools

61. A functioning regulatory framework should include an appropriate set of rules and regulations for the management of existing fisheries, as well as for the opening of new areas to exploratory fishing, consistent with these Guidelines and other relevant instruments. Such a framework should also include regulations to protect vulnerable populations, communities and habitats.

62. States and RFMO/As should adopt specific conservation and management measures for all DSFs pursuant to these Guidelines. Where no competent RFMO/A exists, or where interim measures governing such fisheries have not been established, such measures should be developed and implemented by flag States.

63. Until a functioning regulatory framework is developed to prevent significant adverse impacts on VMEs and to ensure the long-term sustainability of DSFs, conservation and management measures should include, at a minimum:

i. closing of areas to DSFs where VMEs are known or likely to occur, based on the best available scientific and technical information;

ii. refraining from expanding the level or spatial extent of effort of vessels involved in DSFs; and

iii. reducing the effort in specific fisheries, as necessary, to the nominal levels needed to provide information for assessing the fishery and obtaining relevant habitat and ecosystem information.

Such interim measures are without prejudice to future allocations and participatory rights in the fishery, in accordance with international law.

64. Comprehensive maps showing the spatial extent of existing fisheries should be compiled by RFMO/As. For areas not covered by RFMO/As, each flag State should develop such maps and cooperate with other States concerned and FAO in developing joint maps for relevant areas.

65. Precautionary conservation and management measures, including catch and effort controls, are essential during the exploratory phase of a DSF, and should be a major component of the management of an established DSF. They should include measures to manage the impact of the fishery on low-productivity species, non-target species and sensitive habitat features. Implementation of a precautionary approach to sustainable exploitation of DSFs should include the following measures:

i. precautionary effort limits, particularly where reliable assessments of sustainable exploitation rates of target and main by-catch species are not available;
ii. precautionary measures, including precautionary spatial catch limits where appropriate, to prevent serial depletion of low-productivity stocks;
iii. regular review of appropriate indices of stock status and revision downwards of the limits listed above when significant declines are detected;
iv. measures to prevent significant adverse impacts on vulnerable marine ecosystems; and
v. comprehensive monitoring of all fishing effort, capture of all species and interactions with VMEs.

66. In areas where VMEs have been designated, or are known or likely to occur, based on seabed surveys and mapping or other best available information, States and RFMO/As should close such areas to DSFs until appropriate conservation and management measures have been established to prevent significant adverse impacts on VMEs and ensure long-term conservation and sustainable use of deep-sea fish stocks, in accordance with Section 5.2.

67. States and RFMO/As should have an appropriate protocol identified in advance for how fishing vessels in DSFs should respond to encounters in the course of fishing operations with a VME, including defining what constitutes evidence of an encounter. Such protocol should ensure that States require vessels flying their flag to cease DSFs fishing activities at the site and report the encounter, including the location and any available information on the type of ecosystem encountered, to the relevant RFMO/A and flag State.

68. In designing such protocols and defining what constitutes an encounter, States and RFMO/As should take into account best available information from detailed seabed surveys and mapping, other relevant information available for the site or area, and other conservation and management measures that have been adopted to protect VMEs pursuant to paragraphs 70 and 71.

69. States and RFMO/As should, in light of reports (as referred to in paragraph 67), and in accordance with developed protocols and Section 5.2, adopt or modify management measures, appropriate for the DSF concerned, in regard to the relevant site or area to prevent significant adverse impacts on the VME.

70. States and RFMO/As should, based on the results of assessments carried out pursuant to Section 5.2, adopt conservation and management measures to achieve long-term conservation and sustainable use of deep-sea fish stocks, ensure adequate protection and prevent significant adverse impacts on VMEs. These measures should be developed on a case-by-case basis and take into account the distribution ranges of the ecosystems concerned.

71. Conservation and management measures pursuant to paragraph 70, may include:
i. effort controls and/or catch controls;
ii. temporal and spatial restrictions or closures;
iii. changes in gear design and/or deployment or operational measures (as discussed in the 2006 Bangkok Expert Consultation), including,
    - reduction of contact between the fishing gear and the seabed,
    - use of effective bycatch reduction devices, and
    - use of technical measures to eliminate or minimize ghost fishing; or
iv. other relevant measures necessary to achieve the objective of paragraph 70.

The performance of each measure depends on many factors related to the particular fishery, ecosystem, and how these measures are implemented. Management measures for DSFs, where applicable, should take account of appropriate biological reference points. Such measures should be

accompanied by an effective set of MCS measures sufficient to ensure compliance with agreed measures.

72. Some of the above management measures for DSFs, such as effort, catch and temporal controls, may be limited in their effectiveness for the protection of some types of VMEs. Effective protection of such VMEs will usually require complementary measures, such as gear restrictions and spatial controls, as appropriate.

73. States and RFMO/As should assess, on the basis of the best available scientific and technical information, whether DSFs activities would have significant adverse impacts on VMEs. They should ensure that these activities are managed to prevent such impacts or not authorized to proceed, if it is assessed, in accordance with Section 5.2 of these Guidelines, that they would have significant adverse impacts.

74. If after assessing all available scientific and technical information, the presence of VMEs or the likelihood that individual DSFs activities would cause significant adverse impacts on VMEs cannot be adequately determined, States should only authorize individual DSFs activities to proceed in accordance with:

i. precautionary conservation and management measures to prevent significant adverse impacts as described in paragraph 65;

ii. a protocol for encounters with VMEs consistent with paragraphs 67-69; and

iii. measures, including ongoing scientific research, monitoring and data collection, to reduce uncertainty.

Fishery management plans

75. States and RFMO/As should develop and adopt fishery management plans for specific DSFs, including a set of measures with defined long-term/multi-annual management objectives. Such plans should be tailored on a case-by-case basis to the characteristics of each fishery, making use of relevant management tools and consistent with paragraphs 11, 12, 21, and 22, and other relevant provisions of these Guidelines.

76. Fishery management plans for DSFs should include biological reference points set at levels that ensure, at a minimum, that fish stocks are harvested at levels that are sustainable in the long term. Appropriate biological reference points for stock assessment and management need to be set in a precautionary manner and determined on a case-by-case basis, taking into account the different target stocks, fishery characteristics, and the state of knowledge about the species and fishery.

77. In general, for low-productivity species, fishing mortality should not exceed the estimated or inferred natural mortality. Sustainable management strategies that would be robust to uncertainties are likely to require low exploitation rates.

78. In developing or revising fisheries management plans, flag States and RFMO/As should consider relevant available information from similar or related fisheries, species and ecosystems. Appropriate procedures should be put in place to verify that fishery management plans achieve sustainable fisheries and protect VMEs and the marine biodiversity that these ecosystems contain.

79. States should develop and adopt fisheries management plans for DSFs, on the basis of a transparent, inclusive and participatory process, consistent with national law. States should make such plans publicly available. RFMO/As should also develop and adopt their fishery management plans for DSFs using a transparent process.

80. States should encourage dialogue and collaboration with responsible DSF operators in the development of fishery management plans, recognising the value of industry information and

experience in resource assessment and fisheries management, identification of VMEs, responsible fishing techniques, gear development, and implementation methods to avoid or mitigate significant adverse impacts on VMEs.

5.5 Assessment and review of effectiveness of measures

81. States and RFMO/As should establish a transparent system for regular monitoring of the implementation of fishery management plans as well as conservation and management measures. Using information obtained from such a system, together with the best available scientific and technical information, the effectiveness of such plans and measures should be reviewed and assessed for the purpose of making adjustments as necessary. This adaptive management should form an integral part of the management plans for DSFs.

82. States and RFMO/As should regularly review the accumulating scientific information on deep-sea fish stocks, known or likely location of VMEs and the impacts of DSFs on VMEs and the marine biodiversity that these ecosystems contain. Where important uncertainties are identified, practical measures to reduce them should be pursued.

83. States and RFMO/As should ensure regular and independent reviews of the data and impact assessments, as well as the effectiveness of conservation and management measures for DSFs and other issues, as appropriate.

6 SPECIAL REQUIREMENTS OF DEVELOPING COUNTRIES

84. In the implementation of these Guidelines, States and RFMO/As should fully recognize the special requirements of developing countries, in relation to management of DSFs and the protection of VMEs. To this end States, RFMO/As, the United Nations system, including FAO, the United Nations Development Programme, and other relevant inter-governmental and non-governmental organizations, and financial institutions should assist developing countries in implementing these Guidelines and the actions called for in paragraphs 83-91 of UNGA Resolution 61/105, taking into account the forms of cooperation as set out in Article 5 of the Code, Article 24 and 25 of the 1995 UN Fish Stocks Agreement, and Chapter XI of UNGA Resolution 62/177 concerning capacity building.

85. In implementing these Guidelines, consideration should be given to address the needs of developing countries, including in the specific areas of financial and technical assistance, technology transfer, training and scientific cooperation, particularly in the early stages of the fishery, and in enhancing their ability to develop and manage their own DSFs, as well as to participate in high seas fisheries, including access to such fisheries, in conformity with international law and Article 5 of the Code.

7 ADDITIONAL CONSIDERATIONS ON IMPLEMENTATION

86. States and RFMO/As should collaborate through FAO and other relevant organizations to address common issues such as the development of compatible standards, tools and information aimed at facilitating the implementation of these Guidelines.

87. Pursuant to UNGA Resolution 61/105 and the agreement reached at the twenty-seventh session of COFI, States and RFMO/As should provide appropriate assistance and support for FAO to develop a global database on VMEs in areas beyond national jurisdiction, in cooperation with other relevant organizations.

88. FAO should, based on biennial reports from States and RFMO/As, review the progress made in the implementation of these Guidelines.

89. In implementing these Guidelines consideration should be given to, *inter alia*, accountability, adaptability, effectiveness, practicability, socio-economic aspects, timeliness and transparency.

ANNEX 1 EXAMPLES OF POTENTIALLY VULNERABLE SPECIES GROUPS, COMMUNITIES AND HABITATS, AS WELL AS FEATURES THAT POTENTIALLY SUPPORT THEM

The following examples of species groups, communities, habitats and features often display characteristics consistent with possible VMEs. Merely detecting the presence of an element itself is not sufficient to identify a VME. That identification should be made on a case-by-case basis through application of relevant provisions of these Guidelines, particularly Sections 3.2 and 5.2.

Examples of species groups, communities and habitat forming species that are documented or considered sensitive and potentially vulnerable to DSFs in the high-seas, and which may contribute to forming VMEs:

i. certain coldwater corals and hydroids, e.g. reef builders and coral forest including: stony corals (Scleractinia), alcyonaceans and gorgonians (Octocorallia), black corals (Antipatharia) and hydrocorals (Stylasteridae);

ii. some types of sponge dominated communities;

iii. communities composed of dense emergent fauna where large sessile protozoans (xenophyophores) and invertebrates (e.g. hydroids and bryozoans) form an important structural component of habitat; and

iv. seep and vent communities comprised of invertebrate and microbial species found nowhere else (i.e. endemic).

Examples of topographical, hydrophysical or geological features, including fragile geological structures, that potentially support the species groups or communities, referred to above:

i. submerged edges and slopes (e.g. corals and sponges);

ii. summits and flanks of seamounts, guyots, banks, knolls, and hills (e.g. corals, sponges, xenophyphores);

iii. canyons and trenches (e.g. burrowed clay outcrops, corals);

iv. hydrothermal vents (e.g. microbial communities and endemic invertebrates); and

v. cold seeps (e.g. mud volcanoes for microbes, hard substrates for sessile invertebrates).

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Report of the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie, A/HRC/17/31, 21 March 2011

United Nations A/HRC/17/31

General Assembly

Distr.: General
21 March 2011

Original: English

Human Rights Council
Seventeenth session
Agenda item 3
Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development

Report of the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, John Ruggie

Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework

Summary

This is the final report of the Special Representative. It summarizes his work from 2005 to 2011, and presents the "Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework" for consideration by the Human Rights Council.

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Introduction to the Guiding Principles

1. The issue of business and human rights became permanently implanted on the global policy agenda in the 1990s, reflecting the dramatic worldwide expansion of the private sector at the time, coupled with a corresponding rise in transnational economic activity. These developments heightened social awareness of businesses' impact on human rights and also attracted the attention of the United Nations.

2. One early United Nations-based initiative was called the Norms on Transnational Corporations and Other Business Enterprises; it was drafted by an expert subsidiary body of what was then the Commission on Human Rights. Essentially, this sought to impose on companies, directly under international law, the same range of human rights duties that States have accepted for themselves under treaties they have ratified: "to promote, secure the fulfilment of, respect, ensure respect of and protect human rights".

3. This proposal triggered a deeply divisive debate between the business community and human rights advocacy groups while evoking little support from Governments. The Commission declined to act on the proposal. Instead, in 2005 it established a mandate for a Special Representative of the Secretary-General "on the issue of human rights and transnational corporations and other business enterprises" to undertake a new process, and requested the Secretary-General to appoint the mandate holder. This is the final report of the Special Representative.

4. The work of the Special Representative has evolved in three phases. Reflecting the mandate's origins in controversy, its initial duration was only two years and it was intended mainly to "identify and clarify" existing standards and practices. This defined the first phase. In 2005, there was little that counted as shared knowledge across different stakeholder groups in the business and human rights domain. Thus the Special Representative began an extensive programme of systematic research that has continued to the present. Several thousand pages of documentation are available on his web portal (http://www.business-humanrights.org/SpecialRepPortal/Home): mapping patterns of alleged human rights abuses by business enterprises; evolving standards of international human rights law and international criminal law; emerging practices by States and companies; commentaries of United Nations treaty bodies on State obligations concerning business-related human rights abuses; the impact of investment agreements and corporate law and securities regulation on both States' and enterprises' human rights policies; and related subjects. This research has been actively disseminated, including to the Council itself. It has provided a broader and more solid factual basis for the ongoing business and human rights discourse, and is reflected in the Guiding Principles annexed to this report.

5. In 2007, the Council renewed the mandate of the Special Representative for an additional year, inviting him to submit recommendations. This marked the mandate's second phase. The Special Representative observed that there were many initiatives, public and private, which touched on business and human rights. But none had reached sufficient scale to truly move markets; they existed as separate fragments that did not add up to a coherent or complementary system. One major reason has been the lack of an authoritative focal point around which the expectations and actions of relevant stakeholders could converge. Therefore, in June 2008 the Special Representative made only one recommendation: that the Council support the "Protect, Respect and Remedy" Framework he had developed following three years of research and consultations. The Council did so, unanimously "welcoming" the Framework in its resolution 8/7 and providing, thereby, the authoritative focal point that had been missing.

6. The Framework rests on three pillars. The first is the State duty to protect against human rights abuses by third parties, including business enterprises, through appropriate policies, regulation, and adjudication. The second is the corporate responsibility to respect human rights, which means that business enterprises should act with due diligence to avoid infringing on the rights of others and to address adverse impacts with which they are involved. The third is the need for greater access by victims to effective remedy, both judicial and non-judicial. Each pillar is an essential component in an inter-related and dynamic system of preventative and remedial measures: the State duty to protect because it lies at the very core of the international human rights regime; the corporate responsibility to respect because it is the basic expectation society has of business in relation to human rights; and access to remedy because even the most concerted efforts cannot prevent all abuse.

7. Beyond the Human Rights Council, the Framework has been endorsed or employed by individual Governments, business enterprises and associations, civil society and workers' organizations, national human rights institutions, and investors. It has been drawn upon by such multilateral institutions as the International Organization for Standardization and the Organization for Economic Cooperation and Development in developing their own initiatives in the business and human rights domain. Other United Nations special procedures have invoked it extensively.

8. Apart from the Framework's intrinsic utility, the large number and inclusive character of stakeholder consultations convened by and for the mandate no doubt have contributed to its widespread positive reception. Indeed, by January 2011 the mandate had held 47 international consultations, on all continents, and the Special Representative and his team had made site visits to business operations and their local stakeholders in more than 20 countries.

9. In its resolution 8/7, welcoming the "Protect, Respect and Remedy" Framework, the Council also extended the Special Representative's mandate until June 2011, asking him to "operationalize" the Framework – at is, to provide concrete and practical recommendations for its implementation. This constitutes the mandate's third phase. During the interactive dialogue at the Council's June 2010 session, delegations agreed that the recommendations should take the form of "Guiding Principles"; these are annexed to this report.

10. The Council asked the Special Representative, in developing the Guiding Principles, to proceed in the same research-based and consultative manner that had characterized his mandate all along. Thus, the Guiding Principles are informed by extensive discussions with all stakeholder groups, including Governments, business enterprises and associations, individuals and communities directly affected by the activities of enterprises in various parts of the world, civil society, and experts in the many areas of law and policy that the Guiding Principles touch upon.

11. Some of the Guiding Principles have been road-tested as well. For example, those elaborating effectiveness criteria for non-judicial grievance mechanisms involving business enterprises and communities in which they operate were piloted in five different sectors, each in a different country. The workability of the Guiding Principles' human rights due-diligence provisions was tested internally by 10 companies, and was the subject of detailed discussions with corporate law professionals from more than 20 countries with expertise in over 40 jurisdictions. The Guiding Principles addressing how Governments should help companies avoid getting drawn into the kinds of human rights abuses that all too often occur in conflict-affected areas emerged from off-the-record, scenario-based workshops with officials from a cross-section of States that had practical experience in dealing with these challenges. In short, the Guiding Principles aim not only to provide guidance that is practical, but also guidance informed by actual practice.

12. Moreover, the text of the Guiding Principles itself has been subject to extensive consultations. In October 2010, an annotated outline was discussed in separate day-long sessions with Human Rights Council delegations, business enterprises and associations, and civil society groups. The same document was also presented at the annual meeting of the International Coordinating Committee of National Human Rights Institutions. Taking into account the diverse views expressed, the Special Representative then produced a full draft of the Guiding Principles and Commentary, which was sent to all Member States on 22 November 2010 and posted online for public comment until 31 January 2011. The online consultation attracted 3,576 unique visitors from 120 countries and territories. Some 100 written submissions were sent directly to the Special Representative, including by Governments. In addition, the draft Guiding Principles were discussed at an expert multi-stakeholder meeting, and then at a session with Council delegations, both held in January 2011. The final text now before the Council is the product of this extensive and inclusive process.

13. What do these Guiding Principles do? And how should they be read? Council endorsement of the Guiding Principles, by itself, will not bring business and human rights challenges to an end. But it will mark the end of the beginning: by establishing a common global platform for action, on which cumulative progress can be built, step-by-step, without foreclosing any other promising longer-term developments.

14. The Guiding Principles' normative contribution lies not in the creation of new international law obligations but in elaborating the implications of existing standards and practices for States and businesses; integrating them within a single, logically coherent and comprehensive template; and identifying where the current regime falls short and how it should be improved. Each Principle is accompanied by a commentary, further clarifying its meaning and implications.

15. At the same time, the Guiding Principles are not intended as a tool kit, simply to be taken off the shelf and plugged in. While the Principles themselves are universally applicable, the means by which they are realized will reflect the fact that we live in a world of 192 United Nations Member States, 80,000 transnational enterprises, 10 times as many subsidiaries and countless millions of national firms, most of which are small and medium-sized enterprises. When it comes to means for implementation, therefore, one size does not fit all.

16. The Special Representative is honored to submit these Guiding Principles to the Human Rights Council. In doing so, he wishes to acknowledge the extraordinary contributions by hundreds of individuals, groups and institutions around the world, representing different segments of society and sectors of industry, who gave freely of their time, openly shared their experiences, debated options vigorously, and who came to constitute a global movement of sorts in support of a successful mandate: establishing universally applicable and yet practical Guiding Principles on the effective prevention of, and remedy for, business-related human rights harm.

Annex

Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework

General principles

These Guiding Principles are grounded in recognition of:

(a) States' existing obligations to respect, protect and fulfil human rights and fundamental freedoms;

(b) The role of business enterprises as specialized organs of society performing specialized functions, required to comply with all applicable laws and to respect human rights;

(c) The need for rights and obligations to be matched to appropriate and effective remedies when breached.

These Guiding Principles apply to all States and to all business enterprises, both transnational and others, regardless of their size, sector, location, ownership and structure.

These Guiding Principles should be understood as a coherent whole and should be read, individually and collectively, in terms of their objective of enhancing standards and practices with regard to business and human rights so as to achieve tangible results for affected individuals and communities, and thereby also contributing to a socially sustainable globalization.

Nothing in these Guiding Principles should be read as creating new international law obligations, or as limiting or undermining any legal obligations a State may have undertaken or be subject to under international law with regard to human rights.

These Guiding Principles should be implemented in a non-discriminatory manner, with particular attention to the rights and needs of, as well as the challenges faced by, individuals from groups or populations that may be at heightened risk of becoming vulnerable or marginalized, and with due regard to the different risks that may be faced by women and men.

I. The State duty to protect human rights

A. Foundational principles

1. States must protect against human rights abuse within their territory and/or jurisdiction by third parties, including business enterprises. This requires taking appropriate steps to prevent, investigate, punish and redress such abuse through effective policies, legislation, regulations and adjudication.

Commentary

States' international human rights law obligations require that they respect, protect and fulfil the human rights of individuals within their territory and/or jurisdiction. This includes

the duty to protect against human rights abuse by third parties, including business enterprises.

The State duty to protect is a standard of conduct. Therefore, States are not per se responsible for human rights abuse by private actors. However, States may breach their international human rights law obligations where such abuse can be attributed to them, or where they fail to take appropriate steps to prevent, investigate, punish and redress private actors' abuse. While States generally have discretion in deciding upon these steps, they should consider the full range of permissible preventative and remedial measures, including policies, legislation, regulations and adjudication. States also have the duty to protect and promote the rule of law, including by taking measures to ensure equality before the law, fairness in its application, and by providing for adequate accountability, legal certainty, and procedural and legal transparency.

This chapter focuses on preventative measures while Chapter III outlines remedial measures.

2. States should set out clearly the expectation that all business enterprises domiciled in their territory and/or jurisdiction respect human rights throughout their operations.

Commentary

At present States are not generally required under international human rights law to regulate the extraterritorial activities of businesses domiciled in their territory and/or jurisdiction. Nor are they generally prohibited from doing so, provided there is a recognized jurisdictional basis. Within these parameters some human rights treaty bodies recommend that home States take steps to prevent abuse abroad by business enterprises within their jurisdiction.

There are strong policy reasons for home States to set out clearly the expectation that businesses respect human rights abroad, especially where the State itself is involved in or supports those businesses. The reasons include ensuring predictability for business enterprises by providing coherent and consistent messages, and preserving the State's own reputation.

States have adopted a range of approaches in this regard. Some are domestic measures with extraterritorial implications. Examples include requirements on "parent" companies to report on the global operations of the entire enterprise; multilateral soft-law instruments such as the Guidelines for Multinational Enterprises of the Organization for Economic Cooperation and Development; and performance standards required by institutions that support overseas investments. Other approaches amount to direct extraterritorial legislation and enforcement. This includes criminal regimes that allow for prosecutions based on the nationality of the perpetrator no matter where the offence occurs. Various factors may contribute to the perceived and actual reasonableness of States' actions, for example whether they are grounded in multilateral agreement.

B. Operational principles

General State regulatory and policy functions

3. In meeting their duty to protect, States should:

(a) Enforce laws that are aimed at, or have the effect of, requiring business enterprises to respect human rights, and periodically to assess the adequacy of such laws and address any gaps;

(b) Ensure that other laws and policies governing the creation and ongoing operation of business enterprises, such as corporate law, do not constrain but enable business respect for human rights;

(c) Provide effective guidance to business enterprises on how to respect human rights throughout their operations;

(d) Encourage, and where appropriate require, business enterprises to communicate how they address their human rights impacts.

Commentary

States should not assume that businesses invariably prefer, or benefit from, State inaction, and they should consider a smart mix of measures – national and international, mandatory and voluntary – to foster business respect for human rights.

The failure to enforce existing laws that directly or indirectly regulate business respect for human rights is often a significant legal gap in State practice. Such laws might range from non-discrimination and labour laws to environmental, property, privacy and anti-bribery laws. Therefore, it is important for States to consider whether such laws are currently being enforced effectively, and if not, why this is the case and what measures may reasonably correct the situation.

It is equally important for States to review whether these laws provide the necessary coverage in light of evolving circumstances and whether, together with relevant policies, they provide an environment conducive to business respect for human rights. For example, greater clarity in some areas of law and policy, such as those governing access to land, including entitlements in relation to ownership or use of land, is often necessary to protect both rights-holders and business enterprises.

Laws and policies that govern the creation and ongoing operation of business enterprises, such as corporate and securities laws, directly shape business behaviour. Yet their implications for human rights remain poorly understood. For example, there is a lack of clarity in corporate and securities law regarding what companies and their officers are permitted, let alone required, to do regarding human rights. Laws and policies in this area should provide sufficient guidance to enable enterprises to respect human rights, with due regard to the role of existing governance structures such as corporate boards.

Guidance to business enterprises on respecting human rights should indicate expected outcomes and help share best practices. It should advise on appropriate methods, including human rights due diligence, and how to consider effectively issues of gender, vulnerability and/or marginalization, recognizing the specific challenges that may be faced by indigenous peoples, women, national or ethnic minorities, religious and linguistic minorities, children, persons with disabilities, and migrant workers and their families.

National human rights institutions that comply with the Paris Principles have an important role to play in helping States identify whether relevant laws are aligned with their human

rights obligations and are being effectively enforced, and in providing guidance on human rights also to business enterprises and other non-State actors.

Communication by business enterprises on how they address their human rights impacts can range from informal engagement with affected stakeholders to formal public reporting. State encouragement of, or where appropriate requirements for, such communication are important in fostering respect for human rights by business enterprises. Incentives to communicate adequate information could include provisions to give weight to such self-reporting in the event of any judicial or administrative proceeding. A requirement to communicate can be particularly appropriate where the nature of business operations or operating contexts pose a significant risk to human rights. Policies or laws in this area can usefully clarify what and how businesses should communicate, helping to ensure both the accessibility and accuracy of communications.

Any stipulation of what would constitute adequate communication should take into account risks that it may pose to the safety and security of individuals and facilities; legitimate requirements of commercial confidentiality; and variations in companies' size and structures.

Financial reporting requirements should clarify that human rights impacts in some instances may be "material" or "significant" to the economic performance of the business enterprise.

The State-business nexus

4. States should take additional steps to protect against human rights abuses by business enterprises that are owned or controlled by the State, or that receive substantial support and services from State agencies such as export credit agencies and official investment insurance or guarantee agencies, including, where appropriate, by requiring human rights due diligence.

Commentary

States individually are the primary duty-bearers under international human rights law, and collectively they are the trustees of the international human rights regime. Where a business enterprise is controlled by the State or where its acts can be attributed otherwise to the State, an abuse of human rights by the business enterprise may entail a violation of the State's own international law obligations. Moreover, the closer a business enterprise is to the State, or the more it relies on statutory authority or taxpayer support, the stronger the State's policy rationale becomes for ensuring that the enterprise respects human rights.

Where States own or control business enterprises, they have greatest means within their powers to ensure that relevant policies, legislation and regulations regarding respect for human rights are implemented. Senior management typically reports to State agencies, and associated government departments have greater scope for scrutiny and oversight, including ensuring that effective human rights due diligence is implemented. (These enterprises are also subject to the corporate responsibility to respect human rights, addressed in Chapter II.)

A range of agencies linked formally or informally to the State may provide support and services to business activities. These include export credit agencies, official investment insurance or guarantee agencies, development agencies and development finance institutions. Where these agencies do not explicitly consider the actual and potential adverse impacts on human rights of beneficiary enterprises, they put themselves at risk – in reputational, financial, political and potentially legal terms – for supporting any such harm, and they may add to the human rights challenges faced by the recipient State.

Given these risks, States should encourage and, where appropriate, require human rights due diligence by the agencies themselves and by those business enterprises or projects receiving their support. A requirement for human rights due diligence is most likely to be appropriate where the nature of business operations or operating contexts pose significant risk to human rights.

5. States should exercise adequate oversight in order to meet their international human rights obligations when they contract with, or legislate for, business enterprises to provide services that may impact upon the enjoyment of human rights.

Commentary

States do not relinquish their international human rights law obligations when they privatize the delivery of services that may impact upon the enjoyment of human rights. Failure by States to ensure that business enterprises performing such services operate in a manner consistent with the State's human rights obligations may entail both reputational and legal consequences for the State itself. As a necessary step, the relevant service contracts or enabling legislation should clarify the State's expectations that these enterprises respect human rights. States should ensure that they can effectively oversee the enterprises' activities, including through the provision of adequate independent monitoring and accountability mechanisms.

6. States should promote respect for human rights by business enterprises with which they conduct commercial transactions.

Commentary

States conduct a variety of commercial transactions with business enterprises, not least through their procurement activities. This provides States – individually and collectively – with unique opportunities to promote awareness of and respect for human rights by those enterprises, including through the terms of contracts, with due regard to States' relevant obligations under national and international law.

Supporting business respect for human rights in conflict-affected areas

7. Because the risk of gross human rights abuses is heightened in conflict-affected areas, States should help ensure that business enterprises operating in those contexts are not involved with such abuses, including by:

(a) Engaging at the earliest stage possible with business enterprises to help them identify, prevent and mitigate the human rights-related risks of their activities and business relationships;

(b) Providing adequate assistance to business enterprises to assess and address the heightened risks of abuses, paying special attention to both gender-based and sexual violence;

(c) Denying access to public support and services for a business enterprise that is involved with gross human rights abuses and refuses to cooperate in addressing the situation;

(d) Ensuring that their current policies, legislation, regulations and enforcement measures are effective in addressing the risk of business involvement in gross human rights abuses.

Commentary

Some of the worst human rights abuses involving business occur amid conflict over the control of territory, resources or a Government itself – where the human rights regime cannot be expected to function as intended. Responsible businesses increasingly seek guidance from States about how to avoid contributing to human rights harm in these difficult contexts. Innovative and practical approaches are needed. In particular, it is important to pay attention to the risk of sexual and gender-based violence, which is especially prevalent during times of conflict.

It is important for all States to address issues early before situations on the ground deteriorate. In conflict-affected areas, the "host" State may be unable to protect human rights adequately due to a lack of effective control. Where transnational corporations are involved, their "home" States therefore have roles to play in assisting both those corporations and host States to ensure that businesses are not involved with human rights abuse, while neighboring States can provide important additional support.

To achieve greater policy coherence and assist business enterprises adequately in such situations, home States should foster closer cooperation among their development assistance agencies, foreign and trade ministries, and export finance institutions in their capitals and within their embassies, as well as between these agencies and host Government actors; develop early-warning indicators to alert Government agencies and business enterprises to problems; and attach appropriate consequences to any failure by enterprises to cooperate in these contexts, including by denying or withdrawing existing public support or services, or where that is not possible, denying their future provision.

States should warn business enterprises of the heightened risk of being involved with gross abuses of human rights in conflict-affected areas. They should review whether their policies, legislation, regulations and enforcement measures effectively address this heightened risk, including through provisions for human rights due diligence by business. Where they identify gaps, States should take appropriate steps to address them. This may include exploring civil, administrative or criminal liability for enterprises domiciled or operating in their territory and/or jurisdiction that commit or contribute to gross human rights abuses. Moreover, States should consider multilateral approaches to prevent and address such acts, as well as support effective collective initiatives.

All these measures are in addition to States' obligations under international humanitarian law in situations of armed conflict, and under international criminal law.

Ensuring policy coherence

8. States should ensure that governmental departments, agencies and other State-based institutions that shape business practices are aware of and observe the State's human rights obligations when fulfilling their respective mandates, including by providing them with relevant information, training and support.

Commentary

There is no inevitable tension between States' human rights obligations and the laws and policies they put in place that shape business practices. However, at times, States have to make difficult balancing decisions to reconcile different societal needs. To achieve the appropriate balance, States need to take a broad approach to managing the business and

human rights agenda, aimed at ensuring both vertical and horizontal domestic policy coherence.

Vertical policy coherence entails States having the necessary policies, laws and processes to implement their international human rights law obligations. Horizontal policy coherence means supporting and equipping departments and agencies, at both the national and sub-national levels, that shape business practices – including those responsible for corporate law and securities regulation, investment, export credit and insurance, trade and labour – to be informed of and act in a manner compatible with the Governments' human rights obligations.

9. States should maintain adequate domestic policy space to meet their human rights obligations when pursuing business-related policy objectives with other States or business enterprises, for instance through investment treaties or contracts.

Commentary

Economic agreements concluded by States, either with other States or with business enterprises – such as bilateral investment treaties, free-trade agreements or contracts for investment projects – create economic opportunities for States. But they can also affect the domestic policy space of governments. For example, the terms of international investment agreements may constrain States from fully implementing new human rights legislation, or put them at risk of binding international arbitration if they do so. Therefore, States should ensure that they retain adequate policy and regulatory ability to protect human rights under the terms of such agreements, while providing the necessary investor protection.

10. States, when acting as members of multilateral institutions that deal with business-related issues, should:

(a) Seek to ensure that those institutions neither restrain the ability of their member States to meet their duty to protect nor hinder business enterprises from respecting human rights;

(b) Encourage those institutions, within their respective mandates and capacities, to promote business respect for human rights and, where requested, to help States meet their duty to protect against human rights abuse by business enterprises, including through technical assistance, capacity-building and awareness-raising;

(c) Draw on these Guiding Principles to promote shared understanding and advance international cooperation in the management of business and human rights challenges.

Commentary

Greater policy coherence is also needed at the international level, including where States participate in multilateral institutions that deal with business-related issues, such as international trade and financial institutions. States retain their international human rights law obligations when they participate in such institutions.

Capacity-building and awareness-raising through such institutions can play a vital role in helping all States to fulfil their duty to protect, including by enabling the sharing of information about challenges and best practices, thus promoting more consistent approaches.

Collective action through multilateral institutions can help States level the playing field with regard to business respect for human rights, but it should do so by raising the

performance of laggards. Cooperation between States, multilateral institutions and other stakeholders can also play an important role.

These Guiding Principles provide a common reference point in this regard, and could serve as a useful basis for building a cumulative positive effect that takes into account the respective roles and responsibilities of all relevant stakeholders.

II. The corporate responsibility to respect human rights

A. Foundational principles

11. Business enterprises should respect human rights. This means that they should avoid infringing on the human rights of others and should address adverse human rights impacts with which they are involved.

Commentary

The responsibility to respect human rights is a global standard of expected conduct for all business enterprises wherever they operate. It exists independently of States' abilities and/or willingness to fulfil their own human rights obligations, and does not diminish those obligations. And it exists over and above compliance with national laws and regulations protecting human rights.

Addressing adverse human rights impacts requires taking adequate measures for their prevention, mitigation and, where appropriate, remediation.

Business enterprises may undertake other commitments or activities to support and promote human rights, which may contribute to the enjoyment of rights. But this does not offset a failure to respect human rights throughout their operations.

Business enterprises should not undermine States' abilities to meet their own human rights obligations, including by actions that might weaken the integrity of judicial processes.

12. The responsibility of business enterprises to respect human rights refers to internationally recognized human rights – understood, at a minimum, as those expressed in the International Bill of Human Rights and the principles concerning fundamental rights set out in the International Labour Organization's Declaration on Fundamental Principles and Rights at Work.

Commentary

Because business enterprises can have an impact on virtually the entire spectrum of internationally recognized human rights, their responsibility to respect applies to all such rights. In practice, some human rights may be at greater risk than others in particular industries or contexts, and therefore will be the focus of heightened attention. However, situations may change, so all human rights should be the subject of periodic review.

An authoritative list of the core internationally recognized human rights is contained in the International Bill of Human Rights (consisting of the Universal Declaration of Human Rights and the main instruments through which it has been codified: the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights), coupled with the principles concerning fundamental rights in the eight ILO core conventions as set out in the Declaration on Fundamental Principles and Rights at Work. These are the benchmarks against which other social actors assess the human rights impacts of business enterprises. The responsibility of business enterprises to respect human

rights is distinct from issues of legal liability and enforcement, which remain defined largely by national law provisions in relevant jurisdictions.

Depending on circumstances, business enterprises may need to consider additional standards. For instance, enterprises should respect the human rights of individuals belonging to specific groups or populations that require particular attention, where they may have adverse human rights impacts on them. In this connection, United Nations instruments have elaborated further on the rights of indigenous peoples; women; national or ethnic, religious and linguistic minorities; children; persons with disabilities; and migrant workers and their families. Moreover, in situations of armed conflict enterprises should respect the standards of international humanitarian law.

13. The responsibility to respect human rights requires that business enterprises:

(a) Avoid causing or contributing to adverse human rights impacts through their own activities, and address such impacts when they occur;

(b) Seek to prevent or mitigate adverse human rights impacts that are directly linked to their operations, products or services by their business relationships, even if they have not contributed to those impacts.

Commentary

Business enterprises may be involved with adverse human rights impacts either through their own activities or as a result of their business relationships with other parties. Guiding Principle 19 elaborates further on the implications for how business enterprises should address these situations. For the purpose of these Guiding Principles a business enterprise's "activities" are understood to include both actions and omissions; and its "business relationships" are understood to include relationships with business partners, entities in its value chain, and any other non-State or State entity directly linked to its business operations, products or services.

14. The responsibility of business enterprises to respect human rights applies to all enterprises regardless of their size, sector, operational context, ownership and structure. Nevertheless, the scale and complexity of the means through which enterprises meet that responsibility may vary according to these factors and with the severity of the enterprise's adverse human rights impacts.

Commentary

The means through which a business enterprise meets its responsibility to respect human rights will be proportional to, among other factors, its size. Small and medium-sized enterprises may have less capacity as well as more informal processes and management structures than larger companies, so their respective policies and processes will take on different forms. But some small and medium-sized enterprises can have severe human rights impacts, which will require corresponding measures regardless of their size. Severity of impacts will be judged by their scale, scope and irremediable character. The means through which a business enterprise meets its responsibility to respect human rights may also vary depending on whether, and the extent to which, it conducts business through a corporate group or individually. However, the responsibility to respect human rights applies fully and equally to all business enterprises.

15. In order to meet their responsibility to respect human rights, business enterprises should have in place policies and processes appropriate to their size and circumstances, including:

(a) A policy commitment to meet their responsibility to respect human rights;

(b) A human rights due-diligence process to identify, prevent, mitigate and account for how they address their impacts on human rights;

(c) Processes to enable the remediation of any adverse human rights impacts they cause or to which they contribute.

Commentary

Business enterprises need to know and show that they respect human rights. They cannot do so unless they have certain policies and processes in place. Principles 16 to 24 elaborate further on these.

B. Operational principles

Policy commitment

16. As the basis for embedding their responsibility to respect human rights, business enterprises should express their commitment to meet this responsibility through a statement of policy that:

(a) Is approved at the most senior level of the business enterprise;

(b) Is informed by relevant internal and/or external expertise;

(c) Stipulates the enterprise's human rights expectations of personnel, business partners and other parties directly linked to its operations, products or services;

(d) Is publicly available and communicated internally and externally to all personnel, business partners and other relevant parties;

(e) Is reflected in operational policies and procedures necessary to embed it throughout the business enterprise.

Commentary

The term "statement" is used generically, to describe whatever means an enterprise employs to set out publicly its responsibilities, commitments, and expectations.

The level of expertise required to ensure that the policy statement is adequately informed will vary according to the complexity of the business enterprise's operations. Expertise can be drawn from various sources, ranging from credible online or written resources to consultation with recognized experts.

The statement of commitment should be publicly available. It should be communicated actively to entities with which the enterprise has contractual relationships; others directly linked to its operations, which may include State security forces; investors; and, in the case of operations with significant human rights risks, to the potentially affected stakeholders.

Internal communication of the statement and of related policies and procedures should make clear what the lines and systems of accountability will be, and should be supported by any necessary training for personnel in relevant business functions.

Just as States should work towards policy coherence, so business enterprises need to strive for coherence between their responsibility to respect human rights and policies and procedures that govern their wider business activities and relationships. This should include, for example, policies and procedures that set financial and other performance incentives for personnel; procurement practices; and lobbying activities where human rights are at stake.

Through these and any other appropriate means, the policy statement should be embedded from the top of the business enterprise through all its functions, which otherwise may act without awareness or regard for human rights.

Human rights due diligence

17. In order to identify, prevent, mitigate and account for how they address their adverse human rights impacts, business enterprises should carry out human rights due diligence. The process should include assessing actual and potential human rights impacts, integrating and acting upon the findings, tracking responses, and communicating how impacts are addressed. Human rights due diligence:

(a) Should cover adverse human rights impacts that the business enterprise may cause or contribute to through its own activities, or which may be directly linked to its operations, products or services by its business relationships;

(b) Will vary in complexity with the size of the business enterprise, the risk of severe human rights impacts, and the nature and context of its operations;

(c) Should be ongoing, recognizing that the human rights risks may change over time as the business enterprise's operations and operating context evolve.

Commentary

This Principle defines the parameters for human rights due diligence, while Principles 18 through 21 elaborate its essential components.

Human rights risks are understood to be the business enterprise's potential adverse human rights impacts. Potential impacts should be addressed through prevention or mitigation, while actual impacts – those that have already occurred – should be a subject for remediation (Principle 22).

Human rights due diligence can be included within broader enterprise risk-management systems, provided that it goes beyond simply identifying and managing material risks to the company itself, to include risks to rights-holders.

Human rights due diligence should be initiated as early as possible in the development of a new activity or relationship, given that human rights risks can be increased or mitigated already at the stage of structuring contracts or other agreements, and may be inherited through mergers or acquisitions.

Where business enterprises have large numbers of entities in their value chains it may be unreasonably difficult to conduct due diligence for adverse human rights impacts across them all. If so, business enterprises should identify general areas where the risk of adverse human rights impacts is most significant, whether due to certain suppliers' or clients' operating context, the particular operations, products or services involved, or other relevant considerations, and prioritize these for human rights due diligence.

Questions of complicity may arise when a business enterprise contributes to, or is seen as contributing to, adverse human rights impacts caused by other parties. Complicity has both non-legal and legal meanings. As a non-legal matter, business enterprises may be perceived as being "complicit" in the acts of another party where, for example, they are seen to benefit from an abuse committed by that party.

As a legal matter, most national jurisdictions prohibit complicity in the commission of a crime, and a number allow for criminal liability of business enterprises in such cases. Typically, civil actions can also be based on an enterprise's alleged contribution to a harm, although these may not be framed in human rights terms. The weight of international criminal law jurisprudence indicates that the relevant standard for aiding and abetting is knowingly providing practical assistance or encouragement that has a substantial effect on the commission of a crime.

Conducting appropriate human rights due diligence should help business enterprises address the risk of legal claims against them by showing that they took every reasonable step to avoid involvement with an alleged human rights abuse. However, business enterprises conducting such due diligence should not assume that, by itself, this will automatically and fully absolve them from liability for causing or contributing to human rights abuses.

18. In order to gauge human rights risks, business enterprises should identify and assess any actual or potential adverse human rights impacts with which they may be involved either through their own activities or as a result of their business relationships. This process should:

(a) Draw on internal and/or independent external human rights expertise;

(b) Involve meaningful consultation with potentially affected groups and other relevant stakeholders, as appropriate to the size of the business enterprise and the nature and context of the operation.

Commentary

The initial step in conducting human rights due diligence is to identify and assess the nature of the actual and potential adverse human rights impacts with which a business enterprise may be involved. The purpose is to understand the specific impacts on specific people, given a specific context of operations. Typically this includes assessing the human rights context prior to a proposed business activity, where possible; identifying who may be affected; cataloguing the relevant human rights standards and issues; and projecting how the proposed activity and associated business relationships could have adverse human rights impacts on those identified. In this process, business enterprises should pay special attention to any particular human rights impacts on individuals from groups or populations that may be at heightened risk of vulnerability or marginalization, and bear in mind the different risks that may be faced by women and men.

While processes for assessing human rights impacts can be incorporated within other processes such as risk assessments or environmental and social impact assessments, they should include all internationally recognized human rights as a reference point, since enterprises may potentially impact virtually any of these rights.

Because human rights situations are dynamic, assessments of human rights impacts should be undertaken at regular intervals: prior to a new activity or relationship; prior to major decisions or changes in the operation (e.g. market entry, product launch, policy change, or wider changes to the business); in response to or anticipation of changes in the operating environment (e.g. rising social tensions); and periodically throughout the life of an activity or relationship.

To enable business enterprises to assess their human rights impacts accurately, they should seek to understand the concerns of potentially affected stakeholders by consulting them directly in a manner that takes into account language and other potential barriers to effective engagement. In situations where such consultation is not possible, business enterprises should consider reasonable alternatives such as consulting credible, independent expert resources, including human rights defenders and others from civil society.

The assessment of human rights impacts informs subsequent steps in the human rights due diligence process.

19. In order to prevent and mitigate adverse human rights impacts, business enterprises should integrate the findings from their impact assessments across relevant internal functions and processes, and take appropriate action.

(a) Effective integration requires that:

(i) Responsibility for addressing such impacts is assigned to the appropriate level and function within the business enterprise;

(ii) Internal decision-making, budget allocations and oversight processes enable effective responses to such impacts.

(b) Appropriate action will vary according to:

(i) Whether the business enterprise causes or contributes to an adverse impact, or whether it is involved solely because the impact is directly linked to its operations, products or services by a business relationship;

(ii) The extent of its leverage in addressing the adverse impact.

Commentary

The horizontal integration across the business enterprise of specific findings from assessing human rights impacts can only be effective if its human rights policy commitment has been embedded into all relevant business functions. This is required to ensure that the assessment findings are properly understood, given due weight, and acted upon.

In assessing human rights impacts, business enterprises will have looked for both actual and potential adverse impacts. Potential impacts should be prevented or mitigated through the horizontal integration of findings across the business enterprise, while actual impacts—those that have already occurred – should be a subject for remediation (Principle 22).

Where a business enterprise causes or may cause an adverse human rights impact, it should take the necessary steps to cease or prevent the impact.

Where a business enterprise contributes or may contribute to an adverse human rights impact, it should take the necessary steps to cease or prevent its contribution and use its leverage to mitigate any remaining impact to the greatest extent possible. Leverage is considered to exist where the enterprise has the ability to effect change in the wrongful practices of an entity that causes a harm.

Where a business enterprise has not contributed to an adverse human rights impact, but that impact is nevertheless directly linked to its operations, products or services by its business relationship with another entity, the situation is more complex. Among the factors that will enter into the determination of the appropriate action in such situations are the enterprise's leverage over the entity concerned, how crucial the relationship is to the enterprise, the severity of the abuse, and whether terminating the relationship with the entity itself would have adverse human rights consequences.

The more complex the situation and its implications for human rights, the stronger is the case for the enterprise to draw on independent expert advice in deciding how to respond.

If the business enterprise has leverage to prevent or mitigate the adverse impact, it should exercise it. And if it lacks leverage there may be ways for the enterprise to increase it. Leverage may be increased by, for example, offering capacity-building or other incentives to the related entity, or collaborating with other actors.

There are situations in which the enterprise lacks the leverage to prevent or mitigate adverse impacts and is unable to increase its leverage. Here, the enterprise should consider ending the relationship, taking into account credible assessments of potential adverse human rights impacts of doing so.

Where the relationship is "crucial" to the enterprise, ending it raises further challenges. A relationship could be deemed as crucial if it provides a product or service that is essential to the enterprise's business, and for which no reasonable alternative source exists. Here the severity of the adverse human rights impact must also be considered: the more severe the abuse, the more quickly the enterprise will need to see change before it takes a decision on whether it should end the relationship. In any case, for as long as the abuse continues and the enterprise remains in the relationship, it should be able to demonstrate its own ongoing efforts to mitigate the impact and be prepared to accept any consequences – reputational, financial or legal – of the continuing connection.

20. In order to verify whether adverse human rights impacts are being addressed, business enterprises should track the effectiveness of their response. Tracking should:

(a) Be based on appropriate qualitative and quantitative indicators;

(b) Draw on feedback from both internal and external sources, including affected stakeholders.

Commentary

Tracking is necessary in order for a business enterprise to know if its human rights policies are being implemented optimally, whether it has responded effectively to the identified human rights impacts, and to drive continuous improvement.

Business enterprises should make particular efforts to track the effectiveness of their responses to impacts on individuals from groups or populations that may be at heightened risk of vulnerability or marginalization.

Tracking should be integrated into relevant internal reporting processes. Business enterprises might employ tools they already use in relation to other issues. This could include performance contracts and reviews as well as surveys and audits, using gender-disaggregated data where relevant. Operational-level grievance mechanisms can also provide important feedback on the effectiveness of the business enterprise's human rights due diligence from those directly affected (see Principle 29).

21. In order to account for how they address their human rights impacts, business enterprises should be prepared to communicate this externally, particularly when concerns are raised by or on behalf of affected stakeholders. Business enterprises whose operations or operating contexts pose risks of severe human rights impacts should report formally on how they address them. In all instances, communications should:

(a) Be of a form and frequency that reflect an enterprise's human rights impacts and that are accessible to its intended audiences;

(b) Provide information that is sufficient to evaluate the adequacy of an enterprise's response to the particular human rights impact involved;

(c) In turn not pose risks to affected stakeholders, personnel or to legitimate requirements of commercial confidentiality.

Commentary

The responsibility to respect human rights requires that business enterprises have in place policies and processes through which they can both know and show that they respect human rights in practice. Showing involves communication, providing a measure of transparency and accountability to individuals or groups who may be impacted and to other relevant stakeholders, including investors.

Communication can take a variety of forms, including in-person meetings, online dialogues, consultation with affected stakeholders, and formal public reports. Formal reporting is itself evolving, from traditional annual reports and corporate responsibility/sustainability reports, to include on-line updates and integrated financial and non-financial reports.

Formal reporting by enterprises is expected where risks of severe human rights impacts exist, whether this is due to the nature of the business operations or operating contexts. The reporting should cover topics and indicators concerning how enterprises identify and address adverse impacts on human rights. Independent verification of human rights reporting can strengthen its content and credibility. Sector-specific indicators can provide helpful additional detail.

Remediation

22. Where business enterprises identify that they have caused or contributed to adverse impacts, they should provide for or cooperate in their remediation through legitimate processes.

Commentary

Even with the best policies and practices, a business enterprise may cause or contribute to an adverse human rights impact that it has not foreseen or been able to prevent.

Where a business enterprise identifies such a situation, whether through its human rights due diligence process or other means, its responsibility to respect human rights requires active engagement in remediation, by itself or in cooperation with other actors. Operational-level grievance mechanisms for those potentially impacted by the business enterprise's activities can be one effective means of enabling remediation when they meet certain core criteria, as set out in Principle 31.

Where adverse impacts have occurred that the business enterprise has not caused or contributed to, but which are directly linked to its operations, products or services by a

business relationship, the responsibility to respect human rights does not require that the enterprise itself provide for remediation, though it may take a role in doing so.

Some situations, in particular where crimes are alleged, typically will require cooperation with judicial mechanisms.

Further guidance on mechanisms through which remediation may be sought, including where allegations of adverse human rights impacts are contested, is included in Chapter III on access to remedy.

Issues of context

23. In all contexts, business enterprises should:

(a) Comply with all applicable laws and respect internationally recognized human rights, wherever they operate;

(b) Seek ways to honour the principles of internationally recognized human rights when faced with conflicting requirements;

(c) Treat the risk of causing or contributing to gross human rights abuses as a legal compliance issue wherever they operate.

Commentary

Although particular country and local contexts may affect the human rights risks of an enterprise's activities and business relationships, all business enterprises have the same responsibility to respect human rights wherever they operate. Where the domestic context renders it impossible to meet this responsibility fully, business enterprises are expected to respect the principles of internationally recognized human rights to the greatest extent possible in the circumstances, and to be able to demonstrate their efforts in this regard.

Some operating environments, such as conflict-affected areas, may increase the risks of enterprises being complicit in gross human rights abuses committed by other actors (security forces, for example). Business enterprises should treat this risk as a legal compliance issue, given the expanding web of potential corporate legal liability arising from extraterritorial civil claims, and from the incorporation of the provisions of the Rome Statute of the International Criminal Court in jurisdictions that provide for corporate criminal responsibility. In addition, corporate directors, officers and employees may be subject to individual liability for acts that amount to gross human rights abuses.

In complex contexts such as these, business enterprises should ensure that they do not exacerbate the situation. In assessing how best to respond, they will often be well advised to draw on not only expertise and cross-functional consultation within the enterprise, but also to consult externally with credible, independent experts, including from governments, civil society, national human rights institutions and relevant multi-stakeholder initiatives.

24. Where it is necessary to prioritize actions to address actual and potential adverse human rights impacts, business enterprises should first seek to prevent and mitigate those that are most severe or where delayed response would make them irremediable.

Commentary

While business enterprises should address all their adverse human rights impacts, it may not always be possible to address them simultaneously. In the absence of specific legal guidance, if prioritization is necessary business enterprises should begin with those human rights impacts that would be most severe, recognizing that a delayed response may affect

remediability. Severity is not an absolute concept in this context, but is relative to the other human rights impacts the business enterprise has identified.

III. Access to remedy

A. Foundational principle

25. As part of their duty to protect against business-related human rights abuse, States must take appropriate steps to ensure, through judicial, administrative, legislative or other appropriate means, that when such abuses occur within their territory and/or jurisdiction those affected have access to effective remedy.

Commentary

Unless States take appropriate steps to investigate, punish and redress business-related human rights abuses when they do occur, the State duty to protect can be rendered weak or even meaningless.

Access to effective remedy has both procedural and substantive aspects. The remedies provided by the grievance mechanisms discussed in this section may take a range of substantive forms the aim of which, generally speaking, will be to counteract or make good any human rights harms that have occurred. Remedy may include apologies, restitution, rehabilitation, financial or non-financial compensation and punitive sanctions (whether criminal or administrative, such as fines), as well as the prevention of harm through, for example, injunctions or guarantees of non-repetition. Procedures for the provision of remedy should be impartial, protected from corruption and free from political or other attempts to influence the outcome.

For the purpose of these Guiding Principles, a grievance is understood to be a perceived injustice evoking an individual's or a group's sense of entitlement, which may be based on law, contract, explicit or implicit promises, customary practice, or general notions of fairness of aggrieved communities. The term grievance mechanism is used to indicate any routinized, State-based or non-State-based, judicial or non-judicial process through which grievances concerning business-related human rights abuse can be raised and remedy can be sought.

State-based grievance mechanisms may be administered by a branch or agency of the State, or by an independent body on a statutory or constitutional basis. They may be judicial or non-judicial. In some mechanisms, those affected are directly involved in seeking remedy; in others, an intermediary seeks remedy on their behalf. Examples include the courts (for both criminal and civil actions), labour tribunals, National Human Rights Institutions, National Contact Points under the Guidelines for Multinational Enterprises of the Organization for Economic Cooperation and Development, many ombudsperson offices, and Government-run complaints offices.

Ensuring access to remedy for business-related human rights abuses requires also that States facilitate public awareness and understanding of these mechanisms, how they can be accessed, and any support (financial or expert) for doing so.

State-based judicial and non-judicial grievance mechanisms should form the foundation of a wider system of remedy. Within such a system, operational-level grievance mechanisms can provide early-stage recourse and resolution. State-based and operational-level mechanisms, in turn, can be supplemented or enhanced by the remedial functions of collaborative initiatives as well as those of international and regional human rights

mechanisms. Further guidance with regard to these mechanisms is provided in Guiding Principles 26 to 31.

B. Operational principles

State-based judicial mechanisms

26. States should take appropriate steps to ensure the effectiveness of domestic judicial mechanisms when addressing business-related human rights abuses, including considering ways to reduce legal, practical and other relevant barriers that could lead to a denial of access to remedy.

Commentary

Effective judicial mechanisms are at the core of ensuring access to remedy. Their ability to address business-related human rights abuses depends on their impartiality, integrity and ability to accord due process.

States should ensure that they do not erect barriers to prevent legitimate cases from being brought before the courts in situations where judicial recourse is an essential part of accessing remedy or alternative sources of effective remedy are unavailable. They should also ensure that the provision of justice is not prevented by corruption of the judicial process, that courts are independent of economic or political pressures from other State agents and from business actors, and that the legitimate and peaceful activities of human rights defenders are not obstructed.

Legal barriers that can prevent legitimate cases involving business-related human rights abuse from being addressed can arise where, for example:

- The way in which legal responsibility is attributed among members of a corporate group under domestic criminal and civil laws facilitates the avoidance of appropriate accountability;
- Where claimants face a denial of justice in a host State and cannot access home State courts regardless of the merits of the claim;
- Where certain groups, such as indigenous peoples and migrants, are excluded from the same level of legal protection of their human rights that applies to the wider population.

Practical and procedural barriers to accessing judicial remedy can arise where, for example:

- The costs of bringing claims go beyond being an appropriate deterrent to unmeritorious cases and/or cannot be reduced to reasonable levels through government support, 'market-based' mechanisms (such as litigation insurance and legal fee structures), or other means;
- Claimants experience difficulty in securing legal representation, due to a lack of resources or of other incentives for lawyers to advise claimants in this area;
- There are inadequate options for aggregating claims or enabling representative proceedings (such as class actions and other collective action procedures), and this prevents effective remedy for individual claimants;
- State prosecutors lack adequate resources, expertise and support to meet the State's own obligations to investigate individual and business involvement in human rights-related crimes.

Many of these barriers are the result of, or compounded by, the frequent imbalances between the parties to business-related human rights claims, such as in their financial resources, access to information and expertise. Moreover, whether through active discrimination or as the unintended consequences of the way judicial mechanisms are designed and operate, individuals from groups or populations at heightened risk of vulnerability or marginalization often face additional cultural, social, physical and financial impediments to accessing, using and benefiting from these mechanisms. Particular attention should be given to the rights and specific needs of such groups or populations at each stage of the remedial process: access, procedures and outcome.

State-based non-judicial grievance mechanisms

27. States should provide effective and appropriate non-judicial grievance mechanisms, alongside judicial mechanisms, as part of a comprehensive State-based system for the remedy of business-related human rights abuse.

Commentary

Administrative, legislative and other non-judicial mechanisms play an essential role in complementing and supplementing judicial mechanisms. Even where judicial systems are effective and well-resourced, they cannot carry the burden of addressing all alleged abuses; judicial remedy is not always required; nor is it always the favoured approach for all claimants.

Gaps in the provision of remedy for business-related human rights abuses could be filled, where appropriate, by expanding the mandates of existing non-judicial mechanisms and/or by adding new mechanisms. These may be mediation-based, adjudicative or follow other culturally-appropriate and rights-compatible processes – or involve some combination of these – depending on the issues concerned, any public interest involved, and the potential needs of the parties. To ensure their effectiveness, they should meet the criteria set out in Principle 31.

National human rights institutions have a particularly important role to play in this regard.

As with judicial mechanisms, States should consider ways to address any imbalances between the parties to business-related human rights claims and any additional barriers to access faced by individuals from groups or populations at heightened risk of vulnerability or marginalization.

Non-State-based grievance mechanisms

28. States should consider ways to facilitate access to effective non-State-based grievance mechanisms dealing with business-related human rights harms.

Commentary

One category of non-State-based grievance mechanisms encompasses those administered by a business enterprise alone or with stakeholders, by an industry association or a multi-stakeholder group. They are non-judicial, but may use adjudicative, dialogue-based or other culturally appropriate and rights-compatible processes. These mechanisms may offer particular benefits such as speed of access and remediation, reduced costs and/or transnational reach.

Another category comprises regional and international human rights bodies. These have dealt most often with alleged violations by States of their obligations to respect human

rights. However, some have also dealt with the failure of a State to meet its duty to protect against human rights abuse by business enterprises.

States can play a helpful role in raising awareness of, or otherwise facilitating access to, such options, alongside the mechanisms provided by States themselves.

29. To make it possible for grievances to be addressed early and remediated directly, business enterprises should establish or participate in effective operational-level grievance mechanisms for individuals and communities who may be adversely impacted.

Commentary

Operational-level grievance mechanisms are accessible directly to individuals and communities who may be adversely impacted by a business enterprise. They are typically administered by enterprises, alone or in collaboration with others, including relevant stakeholders. They may also be provided through recourse to a mutually acceptable external expert or body. They do not require that those bringing a complaint first access other means of recourse. They can engage the business enterprise directly in assessing the issues and seeking remediation of any harm.

Operational-level grievance mechanisms perform two key functions regarding the responsibility of business enterprises to respect human rights.

- First, they support the identification of adverse human rights impacts as a part of an enterprise's on-going human rights due diligence. They do so by providing a channel for those directly impacted by the enterprise's operations to raise concerns when they believe they are being or will be adversely impacted. By analyzing trends and patterns in complaints, business enterprises can also identify systemic problems and adapt their practices accordingly
- Second, these mechanisms make it possible for grievances, once identified, to be addressed and for adverse impacts to be remediated early and directly by the business enterprise, thereby preventing harms from compounding and grievances from escalating.

Such mechanisms need not require that a complaint or grievance amount to an alleged human rights abuse before it can be raised, but specifically aim to identify any legitimate concerns of those who may be adversely impacted. If those concerns are not identified and addressed, they may over time escalate into more major disputes and human rights abuses.

Operational-level grievance mechanisms should reflect certain criteria to ensure their effectiveness in practice (Principle 31). These criteria can be met through many different forms of grievance mechanism according to the demands of scale, resource, sector, culture and other parameters.

Operational-level grievance mechanisms can be important complements to wider stakeholder engagement and collective bargaining processes, but cannot substitute for either. They should not be used to undermine the role of legitimate trade unions in addressing labour-related disputes, nor to preclude access to judicial or other non-judicial grievance mechanisms.

30. Industry, multi-stakeholder and other collaborative initiatives that are based on respect for human rights-related standards should ensure that effective grievance mechanisms are available.

Commentary

Human rights-related standards are increasingly reflected in commitments undertaken by industry bodies, multi-stakeholder and other collaborative initiatives, through codes of conduct, performance standards, global framework agreements between trade unions and transnational corporations, and similar undertakings.

Such collaborative initiatives should ensure the availability of effective mechanisms through which affected parties or their legitimate representatives can raise concerns when they believe the commitments in question have not been met. The legitimacy of such initiatives may be put at risk if they do not provide for such mechanisms. The mechanisms could be at the level of individual members, of the collaborative initiative, or both. These mechanisms should provide for accountability and help enable the remediation of adverse human rights impacts.

Effectiveness criteria for non-judicial grievance mechanisms

31. In order to ensure their effectiveness, non-judicial grievance mechanisms, both State-based and non-State-based, should be:

(a) Legitimate: enabling trust from the stakeholder groups for whose use they are intended, and being accountable for the fair conduct of grievance processes;

(b) Accessible: being known to all stakeholder groups for whose use they are intended, and providing adequate assistance for those who may face particular barriers to access;

(c) Predictable: providing a clear and known procedure with an indicative timeframe for each stage, and clarity on the types of process and outcome available and means of monitoring implementation;

(d) Equitable: seeking to ensure that aggrieved parties have reasonable access to sources of information, advice and expertise necessary to engage in a grievance process on fair, informed and respectful terms;

(e) Transparent: keeping parties to a grievance informed about its progress, and providing sufficient information about the mechanism's performance to build confidence in its effectiveness and meet any public interest at stake;

(f) Rights-compatible: ensuring that outcomes and remedies accord with internationally recognized human rights;

(g) A source of continuous learning: drawing on relevant measures to identify lessons for improving the mechanism and preventing future grievances and harms;

Operational-level mechanisms should also be:

(h) Based on engagement and dialogue: consulting the stakeholder groups for whose use they are intended on their design and performance, and focusing on dialogue as the means to address and resolve grievances.

Commentary

A grievance mechanism can only serve its purpose if the people it is intended to serve know about it, trust it and are able to use it. These criteria provide a benchmark for designing, revising or assessing a non-judicial grievance mechanism to help ensure that it is effective in practice. Poorly designed or implemented grievance mechanisms can risk compounding a sense of grievance amongst affected stakeholders by heightening their sense of disempowerment and disrespect by the process.

The first seven criteria apply to any State-based or non-State-based, adjudicative or dialogue-based mechanism. The eighth criterion is specific to operational-level mechanisms that business enterprises help administer.

The term "grievance mechanism" is used here as a term of art. The term itself may not always be appropriate or helpful when applied to a specific mechanism, but the criteria for effectiveness remain the same. Commentary on the specific criteria follows:

(a) Stakeholders for whose use a mechanism is intended must trust it if they are to choose to use it. Accountability for ensuring that the parties to a grievance process cannot interfere with its fair conduct is typically one important factor in building stakeholder trust;

(b) Barriers to access may include a lack of awareness of the mechanism, language, literacy, costs, physical location and fears of reprisal;

(c) In order for a mechanism to be trusted and used, it should provide public information about the procedure it offers. Timeframes for each stage should be respected wherever possible, while allowing that flexibility may sometimes be needed;

(d) In grievances or disputes between business enterprises and affected stakeholders, the latter frequently have much less access to information and expert resources, and often lack the financial resources to pay for them. Where this imbalance is not redressed, it can reduce both the achievement and perception of a fair process and make it harder to arrive at durable solutions;

(e) Communicating regularly with parties about the progress of individual grievances can be essential to retaining confidence in the process. Providing transparency about the mechanism's performance to wider stakeholders, through statistics, case studies or more detailed information about the handling of certain cases, can be important to demonstrate its legitimacy and retain broad trust. At the same time, confidentiality of the dialogue between parties and of individuals' identities should be provided where necessary;

(f) Grievances are frequently not framed in terms of human rights and many do not initially raise human rights concerns. Regardless, where outcomes have implications for human rights, care should be taken to ensure that they are in line with internationally recognized human rights;

(g) Regular analysis of the frequency, patterns and causes of grievances can enable the institution administering the mechanism to identify and influence policies, procedures or practices that should be altered to prevent future harm;

(h) For an operational-level grievance mechanism, engaging with affected stakeholder groups about its design and performance can help to ensure that it meets their needs, that they will use it in practice, and that there is a shared interest in ensuring its success. Since a business enterprise cannot, with legitimacy, both be the subject of complaints and unilaterally determine their outcome, these mechanisms should focus on reaching agreed solutions through dialogue. Where adjudication is needed, this should be provided by a legitimate, independent third-party mechanism.

Annex 477

Report on the Work of the United Nations Open-Ended Informal Consultative Process on Oceans and the Law of the Sea at its Fourteenth Meeting, A/68/159, 17 July 2013

United Nations A/68/159

General Assembly

Distr.: General
17 July 2013

Original: English

Sixty-eighth session
Item 76 (a) of the preliminary list*
Oceans and the law of the sea

Report on the work of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea at its fourteenth meeting

Letter dated 17 July 2013 from the Co-Chairs of the Consultative Process addressed to the President of the General Assembly

Pursuant to General Assembly resolution 67/78 of 11 December 2012, we were appointed as the Co-Chairs of the fourteenth meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea.

We have the honour to submit to you the attached report on the work of the Informal Consultative Process at its fourteenth meeting, which was held at United Nations Headquarters from 17 to 20 June 2013. The outcome of the meeting consists of our summary of issues and ideas raised during the meeting and in particular, with regard to the topic of focus: "The impacts of ocean acidification on the marine environment".

In line with past practice, we kindly request that the present letter and the report of the Informal Consultative Process be circulated as a document of the sixty-eighth session of the General Assembly, under item 76 (a) of the preliminary list.

(*Signed*) Milan Jaya **Meetarbhan**
Don **MacKay**
Co-Chairs

* A/68/50.

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Fourteenth meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea

(17-20 June 2013)

Co-Chairs' summary of discussions[1]

1. The United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea (the "Informal Consultative Process") held its fourteenth meeting from 17 to 20 June 2013 and, pursuant to General Assembly resolution 67/78, focused its discussions on the topic entitled "The impacts of ocean acidification on the marine environment".

2. The meeting was attended by representatives of 76 States, 13 intergovernmental organizations and other bodies and entities and 8 non-governmental organizations.[2]

3. The following supporting documentation was available to the meeting: (a) report of the Secretary-General on oceans and the law of the sea (A/68/71); and (b) format and annotated provisional agenda of the meeting (A/AC.259/L.14).

Agenda items 1 and 2
Opening of the meeting and adoption of the agenda

4. The two Co-Chairs, Don MacKay (New Zealand) and Milan Jaya Meetarbhan (Mauritius), appointed by the President of the General Assembly, opened the meeting.

5. Patricia O'Brien, Under-Secretary-General for Legal Affairs, and Thomas Stelzer, Assistant Secretary-General for Economic and Social Affairs, made opening remarks.

6. The meeting adopted the format and annotated provisional agenda and approved the proposed organization of work.

Agenda item 3
General exchange of views

7. A general exchange of views on the impacts of ocean acidification on the marine environment, as reflected below (paras. 8-18), took place at the plenary meetings on 17 and 19 June. The discussions held on the topic of focus within the Panel's segments are reflected in paragraphs 19 to 62 below.

8. Delegations expressed continued support for the Informal Consultative Process and highlighted the timeliness and critical importance of the topic of focus. They also expressed appreciation for the report of the Secretary-General on oceans and the law of the sea on the topic of focus of the fourteenth meeting (A/68/71).

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[1] The summary is intended for reference purposes only and not as a record of the discussions.

[2] A list of participants is available on the website of the Division for Ocean Affairs and the Law of the Sea at http://www.un.org/Depts/los/index.htm.

9. Delegations recalled that the United Nations Convention on the Law of the Sea ("the Convention") provided the legal framework for all activities in the oceans and seas, including in relation to the protection and preservation of the marine environment and ocean acidification. The role of the Convention in providing for the sustainable management of the oceans and their resources was also stressed. The provisions of the Convention on marine scientific research and the transfer of marine technology were highlighted as important when considering ocean acidification. In the light of the fact that ocean acidification resulted from the uptake of increasing amounts of carbon dioxide (CO_2) by the oceans, the United Nations Framework Convention on Climate Change and the Kyoto Protocol were also relevant instruments in that regard. It was observed that the Convention on Biological Diversity, the Montreal Protocol on Substances that Deplete the Ozone Layer and the London Convention and its Protocol, were also pertinent. Delegations stressed that the discussions at the meeting should focus only on the technical and scientific aspects of ocean acidification, and that policy or regulatory aspects should not be included.

10. The critical role of the oceans in the global carbon cycle was recalled. It was noted that the absorption of CO_2 emissions by the oceans had resulted in increasing acidity or lower pH of the oceans at a rate not seen in 30 million years. Delegations recognized that, although ocean acidification and climate change were separate phenomena, increased levels of CO_2 in the atmosphere contributed to both. In that regard, it was observed that, as long as CO_2 levels continued to increase, so would the acidification of the oceans. Concern was expressed that the cumulative effects of climate change and ocean acidification might cause changes in the marine environment at a pace such that marine ecosystems and species would not have sufficient time to adapt.

11. Delegations highlighted the wide range of impacts of ocean acidification on the oceans and marine organisms. They recognized that ocean acidification was a global threat which directly affected important components of the ocean food web, such as primary producers (plankton), coral reefs, shellfish and crustaceans. In particular, impacts on the ability of key marine organisms to build shells and skeletal structures and to deal with physiological stress were highlighted, along with impacts on coral reef-building organisms and the resulting effects on net global coral reef coverage. Marine species that were important in capture fisheries and mariculture were also impacted, as was the transmission of sound in the oceans. These impacts could threaten protein supply and food security for millions of people, as well as the fishing industry. Social and cultural structures could also be negatively impacted. In that regard, delegations highlighted the fact that ocean acidification undermined the social, economic and environmental pillars of sustainable development.

12. In addition to the risk of loss of territory for those islands which are composed of reefs, delegations stressed that such impacts revealed that ocean acidification not only constituted a challenge for sustainable development and the marine environment, but also a serious threat to the survival of many countries. Many delegations noted that the impacts of ocean acidification disproportionately affected developing countries, particularly small island developing States and developing coastal States.

13. Many delegations recalled that knowledge about the impacts of ocean acidification on the marine environment was still limited. Given the fact that research on ocean acidification was relatively new, delegations stressed the need for additional research on the impact of ocean acidification on marine ecosystems, including with a view to assessing their economic and social consequences, as well as assisting in the development of mitigation and adaptation policies. Many delegations called for the implementation of paragraph 166 of the outcome document of the United Nations Conference on Sustainable Development, held in Rio de Janeiro, Brazil, in June 2012, entitled "The future we want", particularly with regard to the need to support marine scientific research and monitoring of ocean acidification, including through enhanced cooperation. Some delegations also highlighted the need for enhanced information and data-sharing. In particular, support was expressed by several delegations for a global ocean acidification observing network. The need for practical procedures to monitor ocean acidification was also highlighted.

14. Many delegations provided information on their research activities related to ocean acidification, including efforts to monitor, assess and address its impacts. The need to build capacity to strengthen and expand research programmes, including through transfer of technology and training fellowships, was emphasized. In this context, the establishment of the Ocean Acidification International Coordination Centre of the International Atomic Energy Agency (IAEA) was noted.

15. With regard to the mitigation of ocean acidification, delegations stressed that the principal mitigation measure was the reduction of CO_2 emissions. The potential of other mitigation methods, such as carbon capture and storage, was also noted by several delegations. At the same time, the need for caution and for additional research, including on the possible deleterious side effects of such methods, was highlighted. There was a call for a precautionary approach to be fully applied with regard to ocean fertilization and ocean geoengineering which, it was considered, could cause more devastating problems than they solved. The importance of maintaining and restoring carbon sinks, reducing energy demand and developing renewable sources of energy was also emphasized.

16. The importance of adaptation measures was emphasized. In this context, several delegations highlighted the need to also reduce the impacts of other stressors on the marine environment, including pollution, coastal erosion, destructive fishing practices and overfishing, in order to enhance the resiliency of marine ecosystems to ocean acidification. In that regard, the importance of tools, such as environmental impact assessments, marine protected areas and marine spatial planning, as well as the need for improved fisheries management, was noted. It was observed, however, that some fishing activities, in particular illegal, unreported and unregulated fishing, could aggravate the impacts of ocean acidification by affecting ecosystem health, but that fisheries were also impacted by ocean acidification. Many delegations expressed the view that the establishment of marine protected areas could help to build the resilience of marine ecosystems, including by addressing a range of stressors and cumulative impacts. It was observed that the development of adaptive strategies presented a challenge for some States. In that regard, the need for enhanced capacity-building for ecosystem management was also noted.

17. Delegations highlighted the importance of international cooperation and coordination in dealing with ocean acidification and its impacts on the marine

environment, including through existing mechanisms such as the Regular Process for Global Reporting and Assessment of the State of the Marine Environment, including Socio-economic Aspects ("Regular Process"). The view was expressed that initiatives such as the International Ocean Carbon Coordination Project were also relevant in that regard. It was suggested that international cooperation and coordination should be a priority, in order to avoid competition among projects and achieve complementarities. The view was expressed that initiatives such as the Regular Process were an important aspect of international cooperation and that such processes must also take into account the needs and concerns of developing countries. The benefits of cooperation in providing the best available scientific information on the impacts of ocean acidification to policymakers were highlighted. A suggestion was made, in this regard, that expanded research and targeted management and policy responses needed to be undertaken in ways that were mutually supportive and responsive. It was also noted that scientific work should be conducted in formats that were appropriate for policymakers.

Area of focus: impacts of ocean acidification on the marine environment

18. In accordance with the annotated agenda, discussions in the Panel segments were structured around: (a) the process of ocean acidification; (b) impacts of ocean acidification and ongoing activities at the global, regional and national levels to address those impacts; and (c) opportunities and challenges for addressing the impacts of ocean acidification on the marine environment, including through enhanced cooperation on scientific and technical aspects. The segments were launched by presentations from panellists, followed by interactive discussions.

1. The process of ocean acidification: impacts of ocean acidification and ongoing activities at the global, regional and national levels to address those impacts

(a) Panel presentations

19. In segment 1, Richard Feely, National Oceanic and Atmospheric Administration's Pacific Marine Environmental Laboratory (United States of America), focused on the science of the ocean acidification process. He illustrated how acidification was already taking place, noting a measurable increase in acidity at very rapid rates, including an expected increase of 100 to 150 per cent by the year 2100, compared to pre-industrial conditions, if current CO_2 emissions were not reduced. He also highlighted the increased vulnerability of certain areas, due to the combination of multiple stressors, in particular the Arctic, Antarctic, tropical regions and coastal regions, where upwelling exacerbated ocean acidification.

20. Juying Wang, China National Marine Environmental Monitoring Centre, explained how the changing carbonate equilibrium of the oceans would impact calcifying organisms and noted that, although the ocean acidification process was a global problem, coastal areas were particularly vulnerable to its impacts. She presented case studies of coastal acidification and an overview of China's research activities in that field. She suggested that questions for discussions may include: how to start ocean acidification observation, especially in developing countries; how to set up a standardized methodology for ocean acidification observation and research, and time-series observing stations; the relationship between ocean acidification and coastal acidification; and the impacts of ocean acidification on aquaculture.

21. In segment 2, Carol Turley, Plymouth Marine Laboratory (United Kingdom of Great Britain and Northern Ireland), focused on the projected alarming rate of changes to basic ocean chemistry over the next decades. She noted that those changes were already taking place, with negative impacts on the aquaculture industry and on natural populations, including key organisms within marine food webs. They would result in future losses of some of the keystone species from polar to tropical waters, altering pelagic and benthic ecosystems and the food webs they supported. Ms. Turley also noted the difficulty and uncertainty of predicting what complex ocean ecosystems and their food webs would look like in the future.

22. Yoshihisa Shirayama, Japan Agency for Marine-Earth Science and Technology, presented the outcome of long-term experiments conducted in order to assess future impacts of ocean acidification on marine organisms. He also presented information on the predicted future distribution of corals and its relevance to the identification of ecologically or biologically sensitive areas and the establishment of marine protected areas.

23. Nathalie Jeanne-Marie Hilmi, Centre Scientifique de Monaco, presented the outcome and recommendations of two international interdisciplinary workshops on the economics of ocean acidification and on the impacts of ocean acidification on fisheries and aquaculture, respectively. She highlighted some conclusions, noting that knowledge of the impacts of ocean acidification, particularly on fisheries, was still insufficient and that there was a need for more research in that regard.

24. Carol Turley, on behalf of Cliff Law, New Zealand National Institute of Water and Atmospheric Research, presented time-series data indicating ongoing and future acidification in the South-West Pacific region. Considerations related to the potential impacts of increased dissolved carbon dioxide and reduced carbonate saturation on marine ecosystems and the services they provide, including with regard to the impact of ocean acidification on pelagic surface water ecosystems and invertebrates and on cold-water coral were also highlighted.

25. Bill Dewey, Taylor Shellfish Farms, stated that the significant decline in oyster larvae production registered in a major shellfish hatchery on the west coast of the United States of America was an illustration of the consequences of changes in seawater chemistry as a result of ocean acidification. He described the efforts to address the regression in production through real-time monitoring and seawater treatment systems to manipulate seawater chemistry.

26. Yimnang Golbuu, Palau International Coral Reef Center, spoke about the importance of coral reefs for Palau and other coastal States. He drew attention to some coral reef areas in Palau which seemed more resilient to high temperature and high acidity conditions and noted the need for further studies to be undertaken to better understand the nature and resiliency of those special habitats. He stressed the importance of the establishment of a network of marine protected areas to safeguard those resilient sites.

27. Robert B. Dunbar, Stanford University, focused on the interconnectedness between the economic livelihood of many small island developing States and healthy coral reefs. He suggested pathways to address the impacts of ocean acidification by reducing the cumulative effects of multiple stressors.

(b) Panel discussions

28. The urgent need to reduce CO_2 emissions to effectively mitigate ocean acidification in the long term was stressed. A panellist noted that, although the depth in the oceans above which calcification could occur and below which carbonates readily dissolved, that is, the saturation horizon, was considered a tipping point for the impacts of ocean acidification, the effects would start to be felt before that threshold was reached. It was also noted that ocean acidity levels did not remain constant, but changed cyclically and seasonally. It was observed that some marine areas, such as polar areas and coastal areas, would experience greater levels of ocean acidification in the short term because of their particular characteristics.

29. Delegations expressed concern about the potential impacts of ocean acidification on the marine environment, as well as on the communities and industries that relied on it.

30. A panellist pointed out that there had been past instances of high levels of ocean acidification due to volcanic activity, which had led to mass species extinctions, but that they had occurred over a longer period of time. Notably, the speed and scale of the current change in acidity levels was unprecedented in the last 60 million, or possibly even 300 million, years.

31. Concern was also expressed about the impacts of ocean acidification on both warm and cold-water corals. A panellist noted that, while some species of coral exhibited resiliency to bleaching (caused by warming), additional research was needed to fully understand the origins of such resiliency. In that regard, the extent to which the increased resilience of certain types of corals was based on genetics was unknown. A panellist suggested that the relative resiliency of different strains of algae species symbiotically associated with certain types of coral might be a factor. Another panellist observed that understanding the origins of resiliency was particularly important for many small island developing States in the light, inter alia, of the role played by healthy coral in mitigating the effects of sea level rise. The comment was made that, despite hopes of resilience by some coral species, the overwhelming scientific evidence was that the area of the ocean that was able to support healthy corals (both tropical and cold-water) would be dramatically reduced in forthcoming decades.

32. Concern was expressed about the possible effect of ocean acidification on sound absorption in the oceans and its impact on marine mammals. In that regard, a panellist pointed out that sound velocity was affected and could interfere with the ability of some species to locate, for example, food and mating partners. Another panellist added that transmission of lower frequencies would be more affected, suggesting possible impacts on large marine mammals, such as whales and other cetaceans.

33. With regard to the socioeconomic impacts of ocean acidification on communities reliant on coral reefs, panellists noted that these ecosystems played an important role in the fishing sector, the aquaculture industry and the tourism and leisure sectors in terms of economic revenue and livelihoods. They also played a key role in protecting coastlines and had, in particular, significant social and cultural value for island communities. The view was expressed, however, that, conversely, tourism might also contribute to CO_2 emissions, thereby exacerbating ocean acidification.

34. The particular sensitivity of small island developing States to the impacts of ocean acidification was underscored. It was noted that many small island developing States relied on coral reefs for their economic, social and cultural well-being and that one third of those States were made up of coral reefs.

35. In the light of the importance of the environmental, social and economic impacts of ocean acidification on the marine environment, the suggestion was made that ocean acidification be included in an oceans sustainable development goal.

36. Consideration was given to measures to improve the ability of the marine environment to withstand the adverse effects of ocean acidification. In that regard, the view was expressed that the only effective long-term mitigation measure at the global level would be to reduce CO_2 emissions. A panellist noted that, given the slow pace of circulation of water between the upper level of the ocean, where CO_2 was absorbed, and the bottom of the ocean, where CO_2 could be buffered and the effects of ocean acidification neutralized, increases in CO_2 in the atmosphere substantially lengthened recovery time. However, a significant reduction in carbon emissions could minimize the impacts of ocean acidification and shorten the recovery time to hundreds of years from tens or hundreds of thousands of years. Another panellist anticipated that, under the strong regulation scenarios considered by the Intergovernmental Panel on Climate Change, some coral species in Asia could survive the projected levels of ocean acidification.

37. Some panellists emphasized that efforts should be made to reduce the impacts of other stressors on vulnerable marine ecosystems and to build the resilience of threatened organisms and communities. The management of cumulative stressors at the local level and the sharing of information and know-how among stakeholders were recognized as valid ways to address the adverse impacts of ocean acidification. Some panellists also highlighted the possibility of increasing reliance on species more resilient to ocean acidification.

38. A panellist noted that the scope of protection required in marine protected areas to effectively address the impacts of ocean acidification could vary, depending on the circumstances. However, the aim should be to reduce the impacts of stressors, such as fishing, tourism, pollution and other activities with negative impacts. Panellists also observed that the establishment of marine protected areas would have to take into account the expected future impacts of ocean acidification on various areas or particular ecosystems. In that regard, it was noted that, for example, seamount areas would be more likely to remain above the rising saturation horizon and could therefore be less affected by ocean acidification.

39. A panellist suggested that, with access to timely scientific information, aquaculture industries could put in place more effective adaptation measures. The approach of oyster farms in the north-west of the United States of America in adapting to increased ocean acidification through monitoring and adaptive management was highlighted as an example for other similarly placed industries in other countries. However, a panellist noted that the success of that approach depended on the ability to effectively monitor and control water conditions in a contained environment and might no longer be effective as the oceans became more acidic.

40. It was observed that, given the global nature of the problem, coordinated action at the global, regional, national and local levels was needed to minimize the impacts of ocean acidification.

41. With regard to research needs, a panellist noted that, although research had increased in recent years, considerable knowledge gaps still remained and there was a particular need for long-term studies. Information was provided on the availability of a database of naturally acidic marine areas.

42. Consideration was given to how research could be prioritized. In that regard, a panellist noted that each State might have different priorities, depending on their particular situation. For instance, for some States, key areas for future research could include the impacts of ocean acidification on cold-water areas, the possible accelerating effects of retreating polar ice on ocean acidification, and how marine ecosystems and communities were affected over time. The adverse effect of ocean acidification on aquaculture should also be studied in terms of ensuring food security as global population increased.

43. In response to a question raised regarding the certainty of the available scientific information on ocean acidification, some panellists stressed that there was consensus among scientists with regard to some aspects, such as the fact that ocean chemistry would be changed by the increase of CO_2 in the atmosphere. However, there was less certainty with regard to the impacts of ocean acidification on coastal and deep sea areas, as illustrated by the discrepancies between observations and models due to the complexities of, and variations within, those areas. It was pointed out that important information could be derived from historical precedents and CO_2 vent areas where volcanic processes caused CO_2 to vent from submarine sediments, thus creating a natural low-pH environment. The fifth assessment report of the International Panel on Climate Change was expected to include additional information in regard to the level of certainty in existing scientific research.

44. A panellist also observed that little was known about how ocean acidification would affect the migratory patterns of highly migratory fish stocks, particularly since the ability to track such migrations over time was a recent development. However, given the fact that migratory patterns were likely to be based on conditions in the marine environment, they might be affected. Another panellist noted that initial estimates regarding the movement of fish stocks to colder waters in response to the warming of the oceans might be reconsidered in the light of the higher rate of ocean acidification in colder waters.

45. Uncertainty still existed also with regard to the impacts of ocean acidification on some species. For instance, it was not known whether species in highly variable acidity levels would be more resistant to decreases in pH or were approaching a tipping point. It was noted that adult fish were believed to be less sensitive to changes in pH than larvae and juvenile fish.

46. Some delegations highlighted the importance of capacity-building in the light of the technical and specialized nature and cost of the research required to observe and monitor ocean acidification and its impacts. A panellist observed that building the capacity of States around the world, including developing countries, to measure and monitor ocean acidification would help to develop an understanding of what was occurring at both the global and local levels, and allow policymakers to have an early warning of potential impacts on marine ecosystems. In that regard, reference was made to efforts to develop a global ocean acidification observing network. Another panellist stressed the need to encourage partnerships between developed and developing countries to address that issue. The transfer of existing knowledge to developing countries was also considered important.

2. Opportunities and challenges for addressing the impacts of ocean acidification on the marine environment, including through enhanced cooperation on scientific and technical aspects

(a) Panel presentations

47. Lisa Suatoni, Natural Resources Defense Council, provided an overview of actions at the local and ecosystem levels to reduce the impacts of ocean acidification. She emphasized that, even if the effects of ocean acidification on a species or an ecosystem could not be directly studied, reducing other stressors, including nitrogen pollution from run-off, sedimentation from dredging, and harvest pressures, would help to alleviate the effects of ocean acidification on individual organisms. She concluded her presentation by noting that many adaptation strategies required increased investments in scientific capacity and also highlighted the benefits of establishing marine protected areas.

48. Michel Warnau, International Atomic Energy Agency, informed the meeting about the Ocean Acidification International Coordination Centre of the IAEA Environmental Laboratories. He noted that the mandate of the Centre was to facilitate, promote and disseminate information about global activities on ocean acidification, with a view to providing a platform for an international observation network, experimentation in ocean acidification, capacity-building and the dissemination of ocean acidification data. He highlighted the effective and global cooperation of the project with other major national and international projects involved in ocean acidification research.

49. Libby Jewett, National Oceanic and Atmospheric Administration, informed the meeting about the Global Ocean Acidification Observing Network, a project developed in close liaison with the Ocean Acidification International Coordination Centre, and funded to date by national sources and through the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and associated bodies (Global Ocean Observing System and the International Ocean Carbon Coordination Project). She noted that the Network aimed at monitoring and observing how ocean chemistry was changing; identifying impacts on species and ecosystems; developing models to assess future impacts on ecosystems and human communities; and developing adaptation strategies. Ms. Jewett highlighted the need for additional observation sites in south-western Africa, north-western Africa, the Indian Ocean and the coral triangle and noted that near-shore areas would need a higher spatial and temporal coverage of observations than open ocean areas.

50. Ilana Wainer, Departamento de Oceanografia Física, Instituto Oceanográfico, Universidade de São Paulo, provided an overview of the science behind ocean acidification. She presented actions undertaken in Brazil to increase the resilience of healthy marine ecosystems, develop and strengthen human resources, enhance coastal monitoring activities, and improve coordination and capacity to conduct research. She observed that the specific needs of developing countries included: developing and strengthening human resources; procuring quantitative information and tools for political and economic decision makers; improving coordination and partnerships; and raising public awareness.

51. Germain Michel Ranjoanina, Madagascar Ministry of Foreign Affairs, considered measures to address ocean acidification from the African perspective.

He noted the challenges faced by African countries and stressed the need for awareness-raising, the establishment of monitoring and control stations in coastal waters, and the need to promote national capacity and institutional capacity-building.

(b) Panel discussions

52. Consideration was given to ways in which ocean acidification could be addressed, taking into account existing limitations in national capacity and the weakness in the implementation of the provisions of the Convention on the transfer of marine technology. In that regard, some delegations expressed interest in technology transfer and capacity-building opportunities, which could be offered through the Ocean Acidification International Coordination Centre. It was indicated that both the Centre and the Global Ocean Acidification Observing Network encouraged the active participation of all States and entities. In particular, States in those areas which were considered to be the most vulnerable to ocean acidification were invited to avail themselves of the capacity-building programmes of both entities.

53. It was also observed that the lack of capacity for dealing with ocean acidification could be overcome by reducing other stressors, with a view to improving ecosystem health and resilience to ocean acidification.

54. Given the fact that States might be developing different adaptation measures to deal with ocean acidification, the usefulness, particularly for developing countries, of establishing universally applicable guidelines was highlighted. Clarification was sought on the role of marine protected areas in areas beyond national jurisdiction with regard to assessment or mitigation of the impacts of ocean acidification. In that regard, some panellists observed that, similar to areas within national jurisdiction, such tools would allow a holistic approach to protecting marine ecosystems from existing and future threats by, inter alia, eliminating or reducing local stressors to improve ecosystem health and building resilience to ocean acidification.

55. A question was raised on ways in which the Ocean Acidification International Coordination Centre intended to expand its membership, and on how to join or support the initiative. A panellist explained that the initiative creating the Centre had come from member States of IAEA and that participation in the Centre was open to all States. The Centre could be supported through direct or in-kind contributions to the IAEA Peaceful Use Initiative. Data-sharing with the Centre was also encouraged.

56. It was clarified that, while the Centre did not focus specifically on fisheries, the Second International Workshop on Economics of Ocean Acidification, co-organized in November 2012 by IAEA and the Centre Scientifique de Monaco, with the participation of the Intergovernmental Oceanographic Commission of UNESCO, the United Nations Environment Programme and the Food and Agriculture Organization of the United Nations, had focused on the impacts of ocean acidification on fisheries and aquaculture and the economic consequences.

57. In relation to participation in the Global Ocean Acidification Observing Network, a panellist noted that awareness about the Network was being raised, including through capacity-building workshops. Some panellists emphasized the need for close coordination with other initiatives in order to avoid duplication. In that regard, the existing strong cooperation between the Network and other observation systems, including the Global Ocean Observing System, the International Ocean Carbon Coordination Project and the Group on Earth

Observations, was highlighted. It was noted that representatives of the first two observation systems had attended the first meeting on the Network.

58. Some delegations suggested that the Centre and the Network take into account, and contribute to, the work within the framework of the Regular Process, since it better encompassed the efforts of States and international organizations, and would ensure that the General Assembly could play a role in addressing ocean acidification. The view was also expressed that this would help to give more visibility to, and support for, those initiatives. The view was expressed that possible gaps and overlapping in the work of intergovernmental organizations in relation to novel or topical law of the sea issues gave rise to some concern. In that regard, the balanced manner in which the General Assembly was coordinating efforts between Governments and specialized agencies was highlighted.

59. Some delegations highlighted the need to strengthen cooperation between institutions and agencies that were studying ocean acidification and among Governments. Consideration was given to the key impediments to international cooperation, and how they could be overcome. In particular, some panellists observed that broad international cooperation networks existed, but that the greatest challenge was building scientific capacity in geographic areas which were likely to be the most vulnerable to ocean acidification. Another panellist noted that limited access to information was an impediment for collaboration within and between countries.

60. The consensus among scientists on the seriousness of ocean acidification to the sustainability of marine ecosystems, such as coral reefs, and the concerted efforts and progress in coordinating scientific initiatives in that regard, both among and within countries, were also highlighted. The view was expressed that, from a political standpoint, the issue of ocean acidification had not been sufficiently brought to the attention of decision makers, and that this presented a major challenge to international cooperation.

61. A panellist observed that international cooperation was important for data collection and dissemination. Several databases had been developed and there was a need to consolidate the available information. The need to make data publicly available was also emphasized, as was the need for a more integrated approach to marine scientific research. Reference was also made to the importance of ensuring standardized data and identification of used methodologies for the purpose of data management and interpretation.

62. Another panellist referred to some areas of the South Atlantic. She noted that, while a monitoring network was at an early planning stage, with funding proposals still being addressed, establishing linkages with other networks was crucial. In that regard, in Brazil, connections with other scientists around the world were being sought through the development of a Scientific Committee on Oceanic Research working group.

Agenda item 4
Inter-agency cooperation and coordination

63. Andrew Hudson, UN-Oceans Coordinator, reported on the activities of UN-Oceans and updated the meeting on follow-up actions to General Assembly resolutions 66/231 and 67/78. He said that, in accordance with paragraph 239 of

resolution 66/231, UN-Oceans had prepared new draft terms of reference for consideration by the Assembly at its sixty-seventh session. Mr. Hudson recalled the request contained in paragraph 267 of resolution 67/78 for UN-Oceans to prepare revised draft terms of reference for consideration by the General Assembly at its sixty-eighth session. He noted in that context that UN-Oceans had received a number of constructive comments from Member States, and that two constructive discussion sessions with Member States had been held in 2013 to share views on a number of aspects, including the UN-Oceans mandate, structure and modalities of work. The meeting was also updated on the tenth meeting of UN-Oceans during the closing days of the Yeosu Expo 2012 in the Republic of Korea.

64. The Coordinator was thanked on behalf of a group of delegations, for the update on the work of UN-Oceans. The importance of UN-Oceans remaining focused on facilitating United Nations system-wide coherence and the implementation of the existing mandates of United Nations entities, relevant General Assembly resolutions and conference outcome documents was emphasized. Many delegations welcomed the work done in strengthening the central role, within UN-Oceans, of the Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs. Delegations recalled the importance of open consultations with Member States and transparency in the work of UN-Oceans and the review of its terms of reference, in keeping with the request of the General Assembly in its resolution 67/78. Delegations expressed their commitment to continue to work constructively in order to make progress on the terms of reference. Delegations looked forward to the consideration of the revised terms of reference during the informal consultations on the General Assembly resolution on oceans and the law of the sea in the latter part of the year.

65. Mr. Hudson reiterated the commitment of UN-Oceans to continuing its dialogue with Member States towards completing the draft terms of reference for formal presentation to the General Assembly at its sixty-eighth session.

66. Many delegations generally shared the Secretary-General’s commitment to the conservation and sustainable use of the oceans and their resources. However, they also expressed concerns regarding the initiative entitled “The Oceans Compact: Healthy Oceans for Prosperity An Initiative of the United Nations Secretary-General” and the manner in which it was progressing, including with regard to the development of an action plan. They considered that the initiative of the Secretary-General sought to deal with issues relating to oceans and seas, but did not properly reflect the interests of Member States and the very delicate balance of rights, obligations and interests which should be taken into account. These delegations had reiterated their specific concerns about the Oceans Compact in a letter to the Secretary-General dated 14 March 2013. They recalled the request made in General Assembly resolution 67/78 for the Secretary-General to undertake open and regular consultations with Member States on all aspects of the initiative. The view was expressed that that request had not yet been fulfilled. Concern was also expressed regarding the establishment of an advisory group, as well as its functions, composition and the selection criteria for its members. Many delegations reiterated that they were not in a position to support the initiative as it currently stood, but remained ready to work in a truly consultative manner to address those concerns.

Agenda item 5
Process for the selection of topics and panellists, so as to facilitate the work of the General Assembly

67. The Co-Chairs introduced item 5, noting that it reflected paragraph 255 of General Assembly resolution 67/78. Delegations were invited to provide their views and make proposals on ways to devise a transparent, objective and inclusive process for the selection of topics and panellists, so as to facilitate the work of the General Assembly during the informal consultations concerning the annual resolution on oceans and the law of the sea. No delegation requested the floor under this agenda item.

Agenda item 6
Issues that could benefit from attention in the future work of the General Assembly on oceans and the law of the sea

68. The Co-Chairs drew attention to the composite streamlined list that they had prepared of issues that could benefit from attention in the future work of the General Assembly on oceans and the law of the sea.[3]

69. A proposal was made for the fifteenth meeting of the Informal Consultative Process to focus on potential and new uses of the oceans. It was suggested that the topic would allow delegations to be updated on the current and new sustainable uses of the oceans and that Member States, in particular small island developing States, would gain relevant knowledge. It was noted that the discussion on this topic could feed into the discussions at the Third International Conference on Small Island Developing States in 2014.

[3] Available at: www.un.org/depts/los/consultative_process/ICP14_Presentations/Composite_List_of_Issues_2013.pdf.

Annex 478

Individual Report on the American Declaration of the Rights and Duties of Man, the American Convention on Human Rights, and the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights. Mapping Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, Report No. 13, prepared for the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy, and Sustainable Environment, December 2013

UNITED NATIONS

OFFICE OF THE UNITED NATIONS
HIGH COMMISSIONER FOR HUMAN RIGHTS

SPECIAL PROCEDURES OF THE UNITED NATIONS HUMAN RIGHTS COUNCIL

Mapping Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment

Individual Report on the American Declaration of the Rights and Duties of Man, the American Convention on Human Rights, and the Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights

Report No. 13

Prepared for the Independent Expert on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy, and Sustainable Environment

December 2013

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V. CONCLUSIONS

I. INTRODUCTION

1. This report describes human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment under the American Declaration of the Rights and Duties of Man (American Declaration),[1] the American Convention on Human Rights (American Convention),[2] and the Additional Protocol to the American Convention on Human Rights in the area of Economic, Social and Cultural Rights (Protocol of San Salvador) (collectively, the Inter-American system).[3] These human rights obligations are elaborated by the Inter-American Commission on Human Rights (IACHR or Commission)—the organ responsible for promoting

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1 American Declaration of the Rights and Duties of Man, O.A.S. Res. XXX, 2 May 1948, reprinted in Basic Documents Pertaining to Human Rights in the Inter-American System, OAS/Ser.L/V/I.4 Rev. 9 (2003). The Inter-American Commission on Human Rights and the Inter-American Human Rights Court have stated that, notwithstanding its adoption as a declaration, the American Declaration represents a source of international law obligations for the Member States of the Organization of American States (OAS). *See Interpretation of the American Declaration of the Rights and Duties of Man Within the Framework of Article 64 of the American Convention on Human Rights*, Advisory Opinion OC-10/89, 14 July 1989, Inter-Am. Ct. H.R. (Ser. A) No. 10 (1989). The OAS is a regional organization (within the meaning of Article 52 of the United Nations Charter) created by the States of the Americas for purposes, *inter alia*, of strengthening regional peace and justice, promoting democracy, and to promote, by cooperative action, their economic, social, and cultural development. *See Charter of the Organisation of American States*, 30 April 1948, 119 U.N.T.S. 3.

2 The American Convention on Human Rights (Pact of San José, Costa Rica), 1144 U.N.T.S. 123, 22 November 1969 (entered into force 18 July 1978). As of 11 September 2013, the Member States of the OAS that have ratified the American Convention are: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, and Uruguay. Member States of the OAS that are not party to the American Convention are subject to review by the Inter-American Commission of their compliance with the American Declaration.

3 The Additional Protocol to the American Convention on Human Rights in the area of Economic, Social and Cultural Rights (Protocol of San Salvador), 28 ILM 156 (1989), 17 November 1988 (entered into force 16 November 1999). As of 11 September 2013, the Member States of the OAS that have ratified the Protocol of San Salvador are: Argentina, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, Suriname and Uruguay.

the observance and defence of human rights in all States in the Americas[4]—and the Inter-American Court of Human Rights (Inter-American Court), which applies and interprets the American Convention in respect to the States Parties thereto.[5]

2. This report is one of a series of 14 reports that examine human rights obligations related to the environment as they have been described by various sources of international law in the following categories: (a) UN human rights bodies and mechanisms; (b) global human rights treaties; (c) regional human rights systems; and (d) international environmental instruments. Each report focuses on one source or set of sources, and all reports follow the same format.

3. These reports were researched and written by legal experts working *pro bono* under the supervision of John H. Knox, the UN Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment. In March 2012, in Resolution 19/10, the Human Rights Council established the mandate of the Independent Expert, which includes, *inter alia*, studying the human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment and reporting to the Council on those obligations.

4. In his first report to the Council, U.N. Doc. A/HRC/22/43 (24 December 2012), the Independent Expert stated that his first priority would be to provide greater conceptual clarity to the application of human rights obligations related to the environment by taking an evidence-based approach to determining the nature, scope and content of the obligations. To that end, he

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4 *See* OAS Charter, *supra* note 1, art. 106 ("There shall be an Inter-American Commission on Human Rights, whose principal function shall be to promote the observance and protection of human rights and to serve as a consultative organ of the Organization in these matters.").

5 As of 11 September 2013, the following States have recognized the contentious jurisdiction of the Court: Argentina, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname and Uruguay.

assembled a team of volunteers to map the human rights obligations pertaining to environmental protection in as much detail as possible. The results of the research are contained in this and the other reports in this series.

5. The Independent Expert's second report to the Council, U.N. Doc. A/HRC/25/53 (30 December 2013), describes the mapping project and summarizes its conclusions on the basis of the findings of the 14 specific reports. In brief, the main conclusions are that the human rights obligations relating to the environment include procedural obligations of States to assess environmental impacts on human rights and to make environmental information public, to facilitate participation in environmental decision-making, and to provide access to remedies, as well as substantive obligations to adopt legal and institutional frameworks that protect against environmental harm that interferes with the enjoyment of human rights, including harm caused by private actors. States are also subject to a general requirement of non-discrimination in the application of environmental laws, and have additional obligations to members of groups particularly vulnerable to environmental harm, including women, children and indigenous peoples.

A. SUMMARY OF THE RESEARCH PROCESS

6. In addition to the normative bases for the human rights in the Inter-American system, this report is based on an examination of certain materials produced by the Commission and the Court in relation to their functions for the promotion and protection of the human rights under the American Declaration, the American Convention and the Protocol of San Salvador.

7. The categories of IACHR documentation reviewed are the following:

(a) Annual Reports;

(b) Country Reports;[6]

(c) Merits Decisions;

(d) Admissibility Decisions;[7]

(e) Precautionary Measures;[8]

(f) Applications by the Inter-American Commission to the Inter-American Court; and

(g) Thematic Reports.

8. In addition, judgments of the Inter-American Court were reviewed.[9]

9. Due to time and resource constraints, examination of the IACHR's materials listed above was limited to documentation produced between 1988 and 2012, with the exception of the Precautionary Measures, which were reviewed for the period 1998 through 2012. Of the documentation reviewed, the research was narrowed to those materials containing relevant search terms.

10. The search terms used covered a broad range of subject matters relevant to the environment, including the principal causes of environmental harm and several ways that environmental harm and its consequences are manifested. The relevant terms are set forth in the table below:

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[6] The IACHR has the authority to examine and report upon the general human rights situation in a particular State or with respect to specific human rights issues.

[7] At the time of the preparation of this report, the Inter-American system has before it several cases that may further develop its jurisprudence in this area. This report does not discuss pending cases.

[8] Article 25 of the IACHR Rules of Procedure provide for precautionary measures, which "shall concern serious and urgent situations presenting a risk of irreparable harm to persons or to the subject matter of a pending petition or case before the organs of the inter-American system." *See* Rules of Procedure of the Inter-American Commission on Human Rights, as amended in August 2013, available at http://www.oas.org/en/iachr/mandate/Basics/rulesiachr.asp. A request, or the adoption of, such measures does not prejudice the final decision in a case. *Ibid.*

[9] This report did not review decisions from the Inter-American court establishing provisional measures pursuant to Article 63 of the American Convention.

– Environment*	– Natural Resources	– Carbon dioxide
– Water	– Climate	– CO2
– Flood	– "Global warming"	– Sea level*
– Drought	– Emission*	– Erosion
– Storm	– Greenhouse	– Hazardous
– Hurricane	– Food	– Asbestos
– Ecolog*	– Pollut*	– PCB
– Sustain*	– Contamina*	– Mercury
– Sanitary	– Nature	– Acid
– Toxic	– Rio Declaration	– Extinct; extinction
– Stockholm Declaration	– Principle 10	– Endangered
	– Agenda 21	– Ecosystem
– Aarhus	– Habitat	– Dam
– Biodiversity	– Mining	– Desertification
– Chemical	– Typhoon	– Flaring
– Deforest*	– Drown	

11. Due to the large volume of responsive materials, the hits responsive to the search term "air" were not reviewed. Similarly, not all of the hits responsive to the search terms "mining" and "water" were reviewed.

12. The main source for the relevant documentation was the website of the IACHR,[10] which contains the most comprehensive collection of documents relating to the work of the IACHR and the Court. The review was conducted of English language documents; accordingly, there may be instances of materials published only in Portuguese or Spanish by the Commission or the Court that are not reflected in the report.

B. OVERVIEW OF THE REPORT

13. The remainder of the report presents the main findings of the research. Section II describes how the Inter-American system has connected environmental harm to infringements of particular human rights. Section III discusses human rights obligations relating to the environment. These obligations include procedural obligations, substantive obligations and

[10] *See* OAS webpage, http://www.oas.org/en/iachr/.

obligations relating to members of specific groups, namely indigenous peoples and environmental human rights defenders. Section IV addresses obligations pertaining to various cross-cutting issues, including obligations relating to transboundary environmental harm and duties relating to non-state actors. Section V makes some concluding observations.

II. HUMAN RIGHTS THREATENED BY ENVIRONMENTAL HARM

14. When the OAS first established the Inter-American Commission in 1960, it gave the Commission a mandate to promote respect for human rights, as defined by the 1948 American Declaration. "The 'non-binding' American Declaration thus became the basic normative instrument of the Commission."[11] Under this system, the Commission initially had the power only to prepare investigative reports on human rights problems and make recommendations to governments, but in 1965, it was also authorized to hear individual communications, receive information from governments in response, and make recommendations. The American Convention on Human Rights, which entered into force in 1978, assigned the Commission many of those same powers but grounded them in the Convention.[12] In addition, the Convention created the Inter-American Court of Human Rights and gave it a mandate to receive complaints by the Commission, based on communications it had received, provided the State in question had accepted the optional jurisdiction of the Court.[13] States that are parties to the OAS Charter but not to the American Convention are therefore subject to the jurisdiction of the Commission only with respect to its pre-Convention powers, and they are not subject to the jurisdiction of the Inter-American Court.[14]

15. Although the American Declaration and the American Convention do not recognize a right to a healthy environment, they do recognize a broad spectrum of human rights that can be threatened by environmental harm. As the IACHR has stated:

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[11] Thomas Buergenthal, *The Inter-American System for the Protection of Human Rights*, in Human Rights in International Law 439, 472 (Theodor Meron ed., 1984).

[12] American Convention, note 2 *supra*, arts. 34-51.

[13] *Ibid.* art. 61.

[14] *See* Advisory Opinion OC-10/89, note 1 *supra.*

> [A]lthough neither the American Declaration of the Rights and Duties of Man nor the American Convention on Human Rights includes any express reference to the protection of the environment, it is clear that several fundamental rights enshrined therein require, as a precondition for their proper exercise, a minimal environmental quality, and suffer a profound detrimental impact from the degradation of the natural resource base. The IACHR has emphasized in this regard that there is a direct relationship between the physical environment in which persons live and the rights to life, security, and physical integrity. These rights are directly affected when there are episodes or situations of deforestation, contamination of the water, pollution, or other types of environmental harm on their ancestral territories.[15]

16. Similarly, the Inter-American Court has recognized the "undeniable link between the protection of the environment and the enjoyment of other human rights."[16]

17. The Protocol of San Salvador, which sets out economic, social and cultural rights, does expressly articulate a right to a healthy environment. Article 11 of the Protocol recognizes both a human right "to live in a healthy environment" and a duty on States to "promote the protection, preservation, and improvement of the environment." However, the Protocol only makes two rights justiciable through the complaints procedure, neither of them being Article 11.

18. The IACHR and the Court have found environmental degradation and damage to be linked to and to threaten the enjoyment of several human rights protected under the American

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15 *Kuna of Madungandí and Emberá of Bayano Indigenous Peoples and Their Members v. Panama*, 30 November 2012, IACHR Merits Report No. 125/12, Case 12.354, ¶ 233 (internal citations omitted). *See also* IACHR *Second Report on the Situation of Human Rights Defenders in The Americas*, 31 December 2011, OEA/Ser.L/V/II, Doc. 66, ¶ 309 ("Although the American Declaration of the Rights and Duties of Man and the American Convention on Human Rights make no express reference to protection of the environment, the IACHR has written that a healthy environment is a necessary precondition for exercise of a number of fundamental rights, which are profoundly affected by the degradation of natural resources. The Commission's interpretation is that both the Declaration and the American Convention reflect a priority concern with the preservation of individual health and welfare, legal interests which are protected by the interrelation between the rights to life, security of person, physical, psychological and moral integrity, and health, and thereby refer to the right to a healthy environment.").

16 *Kawas-Fernández v. Honduras*, 3 April 2009 Merits, Reparations, and Costs, Judgment (Ser. C No. 196), ¶ 148.

Declaration, the American Convention and the San Salvador Protocol. The human rights that are most frequently implicated and addressed by the organs of the Inter-American system when considering the impact of environmental harm are:

(a) the right to a healthy environment;

(b) the right to life;

(c) the right to physical, mental, and moral integrity (humane treatment);

(d) the right to property;

(e) the right to health;

(f) the rights of the child; and

(g) the right to equality before the law.

Each of these rights is addressed individually below.

19. The Inter-American Court and the IACHR have also, although to a lesser degree, addressed the effects of environmental damage and degradation on the enjoyment of a number of other human rights that are protected in the Inter-American human rights system. These rights include those accorded under the following articles of the American Convention: Article 3 (right to juridical personality);[17] Article 7 (right to personal liberty);[18] Article 12 (right of freedom of conscience and religion);[19] Article 15 (right of assembly); Article 16 (right to freedom of association);[20] Article 17 (rights of the family);[21] Article 22 (right to freedom of movement and

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17 *See also* American Declaration, note 1 *supra*, art. XVII.

18 *See also ibid*. art. I.

19 *See also ibid*. art. III.

20 *See also ibid*. art. XXI.

21 *See also ibid*. art. VI.

residence);[22] and Article 26 (right to progressive development). These rights are not addressed in detail in this report, which instead focuses on those rights that are most commonly invoked in connection with environmental harm.

A. RIGHT TO A HEALTHY ENVIRONMENT

20. Article 11 of the San Salvador Protocol expressly articulates a right to a healthy environment, stating that:

> 1. Everyone shall have the right to live in a healthy environment and to have access to basic public services.
>
> 2. The States Parties shall promote the protection, preservation, and improvement of the environment.

21. Although the San Salvador Protocol expressly recognizes a right to a healthy environment, violations of this right do not give rise to application of the system of individual petitions governed by the Convention.[23] Accordingly, there are no decisions of the Commission or the Court making findings directly in relation to Article 11.

B. RIGHT TO LIFE

22. Article 1 of the American Declaration explicitly confirms that:

> Every human being has the right to life, liberty and the security of his person.

23. Similarly, the right to life is recognized by Article 4 of the American Convention, which provides in relevant part that:

> 1. Every person has the right to have his life respected. This right shall be protected by law … .

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22 *See also ibid*. art. VIII.

23 Article 19(6) of the San Salvador Protocol provides for *ratione materiae* jurisdiction of the Commission and the Court over only two of the rights that it articulates: the right to unionization (Article 8(1)(a)) and the right to education (Article 13).

24. The IACHR recognized a connection between a healthy environment and the right to life in *Yanomami v. Brazil*.[24] In response to a petition brought on behalf of the Yanomami Indians, the Commission found that Brazil had violated Article 1 of the American Declaration by constructing a highway and allowing mining in Yanomami territory, leading to the introduction of contagious diseases and resulting in a considerable number of deaths, notwithstanding a law giving ownership and exclusive rights of the territory to the indigenous people.[25]

25. The IACHR has since emphasized the link between environmental harm and threats to the right to life. For example, in a 1997 report on the situation of human rights in Ecuador, the Commission stated:

> Respect for the inherent dignity of the person is the principle which underlies the fundamental protections of the right to life and to preservation of physical well-being. Conditions of severe environmental pollution, which may cause serious physical illness, impairment and suffering on the part of the local populace, are inconsistent with the right to be respected as a human being.[26]

26. The realization of the rights to life and to physical security and integrity is related to and in some ways dependent upon one's physical environment. Accordingly, where

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[24] *Yanomami v. Brazil*, 5 March 1985, IACHR Resolution No. 12/85, Case No. 7615.

[25] The IACHR also found a violation of Articles VIII and XI of the American Declaration, which protect the right of residence and movement and the right of health and well-being, respectively.

[26] IACHR *Report on the Situation of Human Rights in Ecuador*, 24 April 1997, OEA/Ser.L/V/II.96, Doc. 10 rev. 1, Chap. VIII (*The Human Rights Situation of the Inhabitants of the Interior of Ecuador Affected by Development Activities*). The IACHR produced this report following its examination of threats to the enjoyment of human rights in the Oriente region of Ecuador resulting from oil exploitation activities that were producing toxic waste and polluting the air, soil and water, allegedly resulting in severe illnesses for the region's communities and contamination and depletion of their food resources. *See also Community of La Oroya v. Peru*, 5 August 2009, IACHR Admissibility Report No. 76/09, ¶ 74 ("the alleged deaths and/or health problems of alleged victims resulting from actions and omissions by the State in the face of environmental pollution generated by the metallurgical complex operating at La Oroya, if proven, could represent violations of the rights enshrined in Articles 4 and 5 of the American Convention, with reference to the obligations established in Articles 1.1 and 2 of that instrument").

environmental contamination and degradation pose a persistent threat to human life and health, the foregoing rights are implicated. The Commission has stated that "there is a direct relationship between the physical environment in which persons live and the rights to life, security, and physical integrity. These rights are directly affected when there are episodes or situations of deforestation, contamination of the water, pollution, or other types of environmental harm on their ancestral territories."[27]

C. RIGHT TO PHYSICAL, MENTAL AND MORAL INTEGRITY (HUMANE TREATMENT)

27. Article 5 of the American Convention confirms that:

> 1. Every person has the right to have his physical, mental, and moral integrity respected.

28. The right to physical integrity or well-being—a right intrinsically connected to the right to life—has also been invoked in the context of environmental harm. The Commission has found in several instances that the right to physical integrity requires for its enjoyment a minimum environmental quality.[28]

29. The IACHR has explained that, in the context of environmental pollution resulting from extractive activities, "the right to life and the protection of the physical integrity of

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[27] *Kuna of Madungandí*, note 15 *supra*, ¶ 233. *See also* IACHR, *Access to Justice and Social Inclusion: The Road Towards Strengthening Democracy in Bolivia*, 28 June 2007, OEA/Ser.L/V/II, ¶ 253; *Raposa Serra Do Sol Indigenous Peoples v. Brazil*, 23 October 2010, IACHR Admissibility Report No. 125/10, ¶ 47.

[28] *See, e.g.*, *Kuna of Madungandí*, note 15 *supra*, ¶ 233. *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII ("The realization of the right to life, and to physical security and integrity is necessarily related to and in some ways dependent upon one's physical environment. Accordingly, where environmental contamination and degradation pose a persistent threat to human life and health, the foregoing rights are implicated.").

the individual are norms of an imperative nature,"[29] and found in several instances that environmental harm compromises the enjoyment of the right to physical integrity.[30]

D. RIGHT TO PROPERTY

30. Article XXIII of the American Declaration recognizes a right to property:

> Every person has a right to own such private property as meets the essential needs of decent living and helps to maintain the dignity of the individual and the home.

31. Article 21 of the American Convention provides a more generalized right to property, stating that:

> 1. Everyone has the right to the use and enjoyment of his property. The law may subordinate such use and enjoyment to the interest of society.
>
> 2. No one shall be deprived of his property except upon payment of just compensation, for reasons of public utility or social interest, and in the cases and according to the forms established by law.

32. The right to the use and enjoyment of property may be compromised when the use, enjoyment or value of that property is affected by environmental harm.[31] Moreover, the right to use and enjoy property can be violated through development activities that cause

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29 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII.

30 *See, e.g.*, *Community of San Mateo de Huanchor v. Peru*, 14 October 2004, IACHR Admissibility Report No. 69/04, ¶ 66 ("the events that were denounced with regard to the effects of the environmental pollution of the Mayoc sludge, which has created a public health crisis in the population of San Mateo de Huanchor, if proven, could be characterized as a violation of the right to personal security"); *Ngöbe Indigenous Communities v. Panama*, 5 August 2009, IACHR Admissibility Report No. 75/09, ¶ 48 ("with regard to the alleged effects of construction activity at the Chan-75 site on the environment and on the physical health of members of the communities, the IACHR considers that they tend to characterize alleged violations of Article 5 of the American Convention"); *Community of La Oroya v. Peru*, note 26 *supra*, ¶ 74 ("the alleged deaths and/or health problems of alleged victims resulting from actions and omissions by the State in the face of environmental pollution generated by the metallurgical complex operating at La Oroya, if proven, could represent violations of the rights enshrined in Articles 4 and 5 of the American Convention, with reference to the obligations established in Articles 1.1 and 2 of that instrument").

31 *Community of San Mateo de Huanchor v. Peru*, note 30 *supra*, ¶ 66.

environmental harm, particularly activities that occur on indigenous lands, as Section III.C.1 describes below.[32] This right cannot be invoked, however, to protect public lands or parks without linking the harm to specific victims.[33]

E. RIGHT TO HEALTH

33. Article XI of the American Declaration provides that:

> Every person has the right to the preservation of his health through sanitary and social measures relating to food, clothing, housing and medical care, to the extent permitted by public and community resources.

34. Article 10 of the San Salvador Protocol also recognizes the right to health, stating:

> 1. Everyone shall have the right to health, understood to mean the enjoyment of the highest level of physical, mental and social well-being.
>
> 2. In order to ensure the exercise of the right to health, the States Parties agree to recognize health as a public good … .

35. The IACHR has long acknowledged the relationship between the protection of the environment and the right to health. In its 1984-1985 Annual Report, the Commission stated that

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32 *See, e.g. Maya Indigenous Communities of the Toledo District v. Belize*, 12 October 2004, Merits Judgment, IACHR Report No. 40/04, Case 12.053, ¶ 153 ("by granting logging and oil concessions to third parties to utilize the property and resources that could fall within the lands which must be delimited, demarcated and titled or otherwise clarified or protected, without effective consultations with and the informed consent of the Maya people and with resulting environmental damage, further violated the right to property enshrined in Article XXIII of the American Declaration to the detriment of the Maya people").

33 *See Metropolitan Nature Reserve v. Panama*, 22 October 2003, Admissibility Decision, IACHR Report No. 88/03, Case 11.533, ¶ 34 ("The Commission … holds the present complaint to be inadmissible since it concerns abstract victims represented in an actio popularis rather than specifically identified and defined individuals. The Commission does recognize that given the nature of the complaint, the petition could hardly pinpoint a group of victims with particularity since all the citizens of Panama are described as property owners of the Metropolitan Nature Reserve. The petition is inadmissible, further, because the environmental, civic, and scientific groups considered most harmed by the alleged violations are legal entities and not natural persons, as the Convention stipulates.").

"[t]he right to health should be accompanied by the right to enjoy the social conditions closely connected with a healthy life, such as … a pollution-free environment."[34]

36. In *Yanomami*, the IACHR found a violation of Article XI of the American Declaration in relation to the State's construction of a highway through Yanomami territory and its authorization of mining on that territory, resulting in the deaths of Yanomami Indians from contagious diseases brought by non-indigenous peoples.[35]

37. The Commission and the Inter-American Court have also established a connection between the right to health and the lack of access of indigenous peoples to ancestral lands and to natural resources on those lands. For example, the Inter-American Court has indicated that:

> Special detriment to the right to health and, closely tied to this, detriment to the right to food and access to clean water, have a major impact on the right to a decent existence and basic conditions to exercise other human rights, such as the right to education or the right to cultural identity. In the case of indigenous peoples, access to ancestral lands and to the use and enjoyment of natural resources found on them is closely linked to obtaining food and access to clean water.[36]

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[34] *See IACHR Annual Report 1984–85, Chapter V, Areas in which Further Steps are Needed to Give Effect to the Human Rights Set Forth in the American Declaration of the Rights and Duties of Man and the American Convention on Human Rights*, OEA/Ser.L/V/II.66. *See also IACHR Report on The Situation of Human Rights in Cuba*, 4 October 1983, OEA/Ser.L/V/II.61, Doc. 29 rev. 1, Chap. XIII (*The Right to Health*), ¶ 41 ("[t]o preserve and care for a healthy population, an environment conducive to that goal is essential").

[35] *Yanomami v. Brazil*, note 24 *supra*.

[36] *Indigenous Community Yakye Axa v. Paraguay*, 17 June 2005, Merits, Reparations, and Costs Judgment (Series C No. 125), ¶ 167.

F. RIGHTS OF THE CHILD

38. Article VII of the American Declaration recognizes that "[a]ll children have the right to special protection, care and aid."[37] Article 19 of the American Convention also provides that:

> Every minor child has the right to the measures of protection required by his condition as a minor on the part of his family, society, and the state.

39. Article 16 of the San Salvador Protocol also recognizes "Rights of Children":

> Every child, whatever his parentage, has the right to the protection that his status as a minor requires from his family, society and the State. …

40. The IACHR has drawn a link between activities that cause environmental harm and the rights of the child. Specifically, it has determined that "the alleged deaths and/or health problems of alleged victims resulting from actions and omissions by the State in the face of environmental pollution generated by [a] metallurgical complex," if proven, could constitute in the case of children violations of Article 19 of the American Convention.[38]

41. As discussed in Section III.C below, the Inter-American Court and the IACHR have drawn a link between activities that cause environmental harm or deprive an indigenous community of access to its land and a threat to the ability of children to enjoy the protections granted under Article 19.

G. RIGHT TO EQUALITY BEFORE THE LAW

42. Article II of the American Declaration provides for equal protection:

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[37] Article XXX of the American Declaration also states a duty on the part of parents vis-à-vis their minor children: "It is the duty of every person to aid, support, educate and protect his minor children …".

[38] *Community of La Oroya v. Peru*, note 26 *supra*, ¶ 74.

> All persons are equal before the law and have the rights and duties established in this Declaration, without distinction as to race, sex, language, creed or any other factor.

43. Article 24 of the American Convention also provides that:

> All persons are equal before the law. Consequently, they are entitled, without discrimination, to equal protection of the law.

44. The IACHR has established a link between the enjoyment of a healthy environment and the right to equal protection before the law. For example, in *Mossville Environmental Action Now v. United States*, the IACHR found admissible petitioners' claim that Mossville residents suffered from health problems caused by toxic pollution emitted by fourteen chemical producing industrial facilities granted permits to operate in and around the city in violation of Articles II and V of the American Declaration.[39] The petitioners alleged that "the issuance of environmental permits to industrial facilities by the U.S. government and the resulting environmental pollution ha[d] a disproportionate impact upon the Mossville residents as African-Americans." The Commission stated in relation to the petition that:

> The IACHR recalls that the right to equal protection under international human rights law has been interpreted as prohibiting not only intentional discrimination, but also any distinction, exclusion, restriction or preference which has a discriminatory effect and that "the notion of equality before the law set forth in the American Declaration relates to the application of substantive rights and to the protection to be given to them in the case of acts by the State or others." Without prejudging on the merits of the petition, the IACHR finds that the allegations contained in the petition, if proven, could characterize a violation of the right to equality before the law, as enshrined in Article II of the American Declaration.[40]

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39 *Mossville Environmental Action Now v. United States*, 17 March 2010, IACHR Admissibility Report No. 43/10, ¶ 42.

40 *Ibid*. (internal citations omitted).

III. OBLIGATIONS ON STATES RELATING TO THE ENVIRONMENT

45. As interpreted by the IACHR and the Inter-American Court, States have procedural and substantive obligations under the Inter-American human rights system to protect against environmental harm that interferes with human rights, including through duties relating to environmental protection and duties to refrain from enacting policies that harm the environment.[41]

A. PROCEDURAL OBLIGATIONS

46. Procedural rights and duties play an essential role in the protection of human rights against threats resulting from environmental harm.[42] As the IACHR has stated, "protection of the right to life and physical integrity may best be advanced through measures to support and enhance the ability of individuals to safeguard and vindicate those rights."[43] Both substantive rights and procedural rights may give rise to procedural duties. The primary procedural obligations imposed on States in the Inter-American system are the obligations to provide access to relevant information, to facilitate participation in applicable decision-making processes, to provide effective judicial recourse to affected individuals and groups, and to protect the human rights of environmental defenders.[44]

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41 Specific duties are imposed on States in connection with protecting against threats to the enjoyment of the human rights of indigenous peoples. *See* Section III.C below.

42 Several of the findings by the IACHR and the Inter-American Court regarding the procedural duties imposed on States to prevent against and mitigate the effects of environmental harm were made in the context of cases involving indigenous peoples. However, to the extent that these findings appear to reflect standards of general application within the Inter-American system, they are discussed in this section.

43 *See, e.g., Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII.

44 *See ibid*. ("The quest to guard against environmental conditions which threaten human health requires that individuals have access to: information, participation in relevant decision-making processes, and judicial recourse.").

1. Obligation to provide information about activities having a potential impact on the environment

47. Article IV of the American Declaration establishes that:

> Every person has the right to freedom of investigation, of opinion, and of the expression and dissemination of ideas … .

48. Article 13 of the American Convention provides in relevant part that:

> 1. Everyone has the right to freedom of thought and expression. The right includes freedom to seek, receive, and impart information and ideas of all kinds …

49. The right to freedom of thought and expression encompasses the rights to seek, receive and disseminate information, including in relation to activities having the potential to damage the environment. The IACHR has stated:

> Access to information is a prerequisite for public participation in decision-making and for individuals to be able to monitor and respond to public and private sector action. Individuals have a right to seek, receive and impart information and ideas of all kinds pursuant to Article 13 of the American Convention. Domestic law requires that parties seeking authorization for projects which may affect the environment provide environmental impact assessments and other specific information as a precondition.[45]

50. In a case concerning allegations that Peru permitted a metallurgic plant to operate resulting in pollution and contamination causing the death and illness of residents, the IACHR found that:

> the alleged lack and/or manipulation of information on the environmental pollution pervasive in La Oroya, and on its effects on the health of its residents, along with the alleged harassment toward persons who attempt to disseminate information in that regard, could represent violations of the right enshrined in Article 13 of the American Convention … .[46]

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[45] *See ibid*. ("individuals in affected sectors have indicated that they lack even basic information about exploitation activities taking place locally, and about potential risks to their health").

[46] *Community of La Oroya v. Peru*, note 26 *supra*, ¶ 75.

51. In another case, the Commission viewed restrictions imposed by Chile on petitioners' rights to seek and receive bio-safety information regarding genetically modified organisms, including the State's failure to respond to requests for information, as potentially in violation of Article 13.[47]

52. Similarly, in the *Case of Claude-Reyes,* a case concerning the failure of the Foreign Investment Committee of Chile to respond to the petitioner's request for information regarding a forestry exploitation project with potential environmental impacts, the Inter-American Court confirmed that States are under a duty to provide access to such information. The Court ordered the State to adopt the necessary measures to ensure the right of access to State-held information and to provide training to public entities, authorities and agents responsible for responding to requests for access to State-held information on the laws and regulations governing this right.[48]

2. Obligation to facilitate participation in decision-making about activities having a potential impact on the environment

53. The duty to provide access to information is linked to the duty to ensure that affected individuals and groups have the ability to participate in decision-making about activities that may affect their environment.

54. Article XX of the American Declaration establishes that:

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47 *Gonzalez and Fries v. Chile*, 19 March 2009, IACHR Admissibility Report No. 14/09, ¶¶ 55–56.

48 *Case of Claude-Reyes et al. v. Chile*, 19 September 2006, Merits, Reparations, and Costs Judgment, Series C No. 15, ¶ 174 ("The State violated the right to judicial guarantees … with regard to the administrative authority's decision not to provide information … ."); *Report on the Situation of Human Rights in Ecuador*, note 26 *supra,* Chap. VIII ("as the right to participate in decision-making and the right to effective judicial recourse each require adequate access to information, the Commission recommends that the State take measures to improve systems to disseminate information about the issues which affect them, and to enhance the transparency of and opportunities for public input into processes affecting the inhabitants of development sectors").

> Every person having legal capacity is entitled to participate in the government of his country, directly or through his representatives …

55. Article 23 of the American Convention provides the right to participate in government as follows:

> Every citizen shall enjoy the following rights and opportunities:
>
> a. to take part in the conduct of public affairs, directly or through freely chosen representatives …

56. The IACHR has emphasized the importance of the right to public participation in decision-making regarding activities which could affect the environmental quality of a community. For example, in the context of a report regarding the effects of development activities on, *inter alia*, the environment, the Commission has stated:

> Public participation in decision-making allows those whose interests are at stake to have a say in the processes which affect them. Public participation is linked to Article 23 of the American Convention, which provides that every citizen shall enjoy the right "to take part in the conduct of public affairs, directly or through freely chosen representatives," as well as to the right to receive and impart information. As acknowledged in Decree 1802, while environmental action requires the participation of all social sectors, some, such as women, young people, minorities and indigenous peoples, have not been able to directly participate in such processes for diverse historical reasons. Affected individuals should be able to be informed about and have input into the decisions which affect them.[49]

57. The Commission has confirmed the importance of guaranteeing the access of all sectors of society to decision-making processes about issues that directly impact their environment. For example, the Commission has recommended that a State:[50]

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[49] *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*.

[50] *Ibid*.

implement the measures to ensure that all persons have the right to participate, individually and jointly, in the formulation of decisions which directly concern their environment. The Commission encourages the State to enhance its efforts to promote the inclusion of all social sectors in the decision-making processes which effect [sic] them.

3. Obligation to provide access to judicial recourse and remedies in connection with activities having a potential impact on the environment

58. Article XVIII of the American Declaration establishes that:

> Every person may resort to the courts to ensure respect for his legal rights. There should likewise be available to him a simple, brief procedure whereby the courts will protect him from acts of authority that, to his prejudice, violate any fundamental constitutional rights.

59. Article 8 of the American Convention provides in relevant part that:

> 1. Every person has the right to a hearing, with due guarantees and within a reasonable time, by a competent, independent, and impartial tribunal, previously established by law … for the determination of his rights and obligations of a civil, labor, fiscal, or any other nature.

60. Article 25 of the American Convention provides in relevant part that:

> 1. Everyone has the right to simple and prompt recourse, or any other effective recourse, to a competent court or tribunal for protection against acts that violate his fundamental rights recognized by the constitution or laws of the state concerned or by this Convention, even though such violation may have been committed by persons acting in the course of their official duties.
>
> 2. The State Parties undertake:
>
> a. to ensure that any person claiming such remedy shall have his rights determined by the competent authority provided for by the legal system of the state;
>
> b. to develop the possibilities of judicial remedy; and
>
> c. to ensure that the competent authorities shall enforce such remedies when granted.

61. The IACHR and the Inter-American Court have confirmed that States are required to guarantee the protections granted in Article 8 of the American Convention in the context of activities having an environmental impact. These guarantees are applicable not only in judicial proceedings, but also in the context of any other proceedings—for example, administrative proceedings—in which a State's authorities adjudicate an individual's rights.[51]

62. States must also ensure access for affected individuals and groups to adequate and effective judicial recourse for purposes of bringing claims and seeking appropriate reparation for violations of their human rights caused by environmental damage. In this connection, the IACHR has stated:

> Given that the American Convention requires that all individuals of the Oriente have access to effective judicial recourse to lodge claims alleging the violation of their rights under the [Ecuadorian] Constitution and the American Convention, including claims concerning the right to life and to live in an environment free from contamination, the Commission recommends that the State take measures to ensure that access to justice is more fully afforded to the people of the interior.[52]

Similarly, the IACHR has indicated that States must:

> [g]uarantee access to an adequate and effective judicial remedy for challenging environmental damages of a collective nature so that, in addition to criminal action, there will be a mechanism of a judicial nature to obtain an immediate response in circumstances where projects are causing irreparable damage to groups of individuals.[53]

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51 *Ibid.*

52 *Ibid*.

53 *The Road Towards Strengthening Democracy in Bolivia*, note 27 *supra*, Chap. VIII, ¶ 416, Rec. 29; *see also* Chap. IV (*Rights of Indigenous Peoples and Peasant Communities*), ¶ 253 (noting the State's duty to impose sanctions for the failure to comply with applicable environmental or criminal legislation).

63. The Commission has also underlined the importance of enforcement of court judgments in this context. In the case of *Community of San Mateo de Huanchor v. Peru*, the IACHR found admissible as a potential violation of Article 25 of the Convention the petitioners' claim that the Peruvian authorities facilitated the continued existence of a toxic waste dump near San Mateo causing environmental pollution and adverse health effects, despite criminal and civil litigation orders to close the site.[54]

64. The Inter-American Court and the IACHR have confirmed that damage to the environment caused, for example, by pollution, gives rise to duties to remedy damage on the part of the State, including an obligation to adopt all measures at its disposal to mitigate that damage, to provide access to justice by those adversely impacted by the effects on the environment, and to impose sanctions for failure to comply with any applicable environmental laws and regulations.[55] The Inter-American Court has found that the failure to take such necessary

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[54] *Community of San Mateo de Huanchor v. Peru*, note 30 *supra*, ¶ 66. *See also Community of La Oroya v. Peru*, note 26 *supra*, ¶ 75 (finding "the alleged delay of over three years in the decision on the constitutional motion [in connection with the metallurgical complex operating in the community], as well as the alleged failure to comply with the final decision in that proceeding, could represent violations of the rights enshrined in Articles 8 and 25 of the Convention."); *Case of Claude-Reyes et al. v. Chile*, note 48 *supra* (finding that the State violated Articles 8 and 25 of the Convention by failing to produce a written decision and because the domestic courts lacked capacity properly to handle the case); *Raposa Serra do Sol v. Brazil*, note 27 *supra*, ¶¶ 45, 47 (finding admissible as potential violations of *inter alia* Article 25 the petitioners' allegations regarding the ineffectiveness of the judicial protection aimed at ensuring their right to property).

[55] *See, e.g., The Road Towards Strengthening Democracy in Bolivia*, note 27 *supra*, Chap. IV, ¶ 253 (reminding the State "that the right to life enshrined in the American Convention includes the right to a dignified existence and that when the State becomes aware of the serious situation facing persons who live in areas close to rivers and creeks polluted by natural resource projects, it is the State's duty to adopt all the measures at its disposal to mitigate the damage caused by the concessions it has granted"). *See also Report on the Situation of Human Rights in Ecuador*, note 26 *supra* ("[T]he impact of oil exploitation activities on the health and lives of the affected residents raises serious concern, and prompts the Commission to encourage the State of Ecuador to take the measures necessary to ensure that the acts of its agents, through the State-owned oil company, conform to its domestic and inter-American legal obligations. Moreover, the Commission encourages the State to take steps to prevent harm to affected individuals through the conduct of its licensees and private actors. The State of Ecuador must ensure that measures

measures engages the State's international responsibility for the effects on life and personal integrity flowing from those conditions.[56]

65. The Commission has indicated that, where damage to the environment has occurred, the State's obligation to act includes the duty to undertake the necessary investigations to identify those responsible for environmental harm. For example, the IACHR has stated that: "Where the right to life … has been infringed upon by environmental contamination, the Government is obliged to respond with appropriate measures of investigation and redress."[57] Similarly, States are required to impose sanctions for non-compliance with applicable environmental or criminal regulations.[58]

4. Obligation to protect defenders of environmental rights

66. The role of human rights defenders in defending the human rights connected with a healthy environment, and the risks that they face in doing so, have been recognized within the Inter-American human rights system.[59]

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are in place to prevent and protect against the occurrence of environmental contamination which threatens the lives of the inhabitants of development sectors.").

56 *See, e.g., Case of the Indigenous Community Sawhoyamaxa*, Merits, Reparations, and Costs Judgment, 29 March 2006, Series C No. 146, ¶ 178.

57 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra,* Chap. VIII.

58 *The Road Towards Strengthening Democracy in Bolivia*, *supra* note 27, Chap. IV, ¶ 253 ("when the State becomes aware of the serious situation facing persons who live in areas close to rivers and creeks polluted by natural resource projects, it is the State's duty to adopt all the measures at its disposal to mitigate the damage caused by the concessions it has granted, and to impose sanctions for the failure to comply with applicable environmental or criminal legislation").

59 *See, e.g., IACHR Second Report on the Situation of Human Rights Defenders in the Americas*, note 15 *supra*, Chap. III (*Especially Exposed Groups of Human Rights Defenders*), ¶ 310 (internal citations omitted) ("The right of defenders to participate in activities to protect and promote a healthy environment was recognized by the United Nations General Assembly back in 1982, in its *World Charter of Nature,* which provides that all persons 'shall have the opportunity to participate, individually or with others, in the formulation of decisions of direct concern to their environment, and shall have access to means of redress when their environment has suffered damage or degradation.' Agenda 21, the United Nations Programme of Action from the Rio

67. In *Kawas Fernández v. Honduras*, the Inter-American Court held that a State's failure to adopt the necessary measures to protect the right to life of a defender of human rights and of environmental and natural resource preservation gives rise to a violation of Article 4 of the Convention.[60] The case involved the allegation that a human rights defender was killed due to her association with an organization that objected to the activities in Honduras of private parties that contaminated lakes and led to deforestation.[61] In its judgment, the Inter-American Court stated:

> The recognition of the work in defense of the environment and its link to human rights is becoming more prominent across the countries of the region, in which an increasing number of incidents have been reported involving threats and acts of violence against and murders of environmentalists owing to their work.[62]

68. Similarly, in a Report on the Situation of Human Rights Defenders in the Americas, the IACHR recognized that:

> The struggle for the right to land and the right to a healthy environment, (…) have led thousands of human rights defenders, student leaders, social leaders and rural leaders to organize to struggle for the effective observance of their rights. The Commission has received many complaints that indicate that many

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Conference on Environment and Development, recognized the importance of cooperation between organizations and the States to preserve the environment and achieve development."). *See also ibid.* ¶ 311 ("The Commission has examined a number of issues related to the link between the environment related to the link between the environment, defenders and human rights … . The Commission observes that defenders play an essential role in ensuring the balance between environmental protection and the development of the countries of the region. They are also vital to guaranteeing that every individual's right to life and right to personal integrity are protected from exposure to contaminating agents that, emanating from a variety of sources, can affect the quality of the air, water, soil and subsoil, and can be inimical to the enjoyment of human rights.").

60 *Kawas-Fernández v. Honduras*, note 16 *supra*.

61 *Ibid.* ¶¶ 151–52. The Inter-American Court found the State to be responsible for violations of Articles 2, 4, 5, and 16 of the American Convention in respect of certain of the claimants.

62 *Ibid.* ¶ 149.

> leaders have been targeted by threats and attacks because of their work to protect economic and social rights.[63]

69. In its *Second Report on the Situation of Human Rights Defenders in the Americas*, the IACHR provided that "[t]he attacks, aggression and harassment targeted at environmental defenders expose the problem of the State's non-compliance with its obligations where environmental protection is concerned."[64] The IACHR also indicated that the work of environmental defenders is obstructed, in particular, in the case of projects run by the extractive industries.[65]

70. The IACHR has decided several petitions in relation to human rights defenders struggling to achieve a healthy environment,[66] and granted requests seeking preliminary measures. Indeed, the Commission has singled out as a key factor in its decisions about requests for precautionary measures in relation to human rights defenders, whether there exist "*threats to*

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63 *IACHR Report on the Situation of Human Rights Defenders in the Americas*, 7 March 2006, OEA/Ser.L/V/II.124 Doc. 5 rev. 1, Chap. IV (*Especially Exposed Groups of Defenders*), ¶ 215.

64 *Second Report on the Situation of Human Rights Defenders in the Americas*, note 15 *supra*, Chap. III, ¶ 316.

65 *Ibid*. ¶ 312 ("[T]he IACHR has observed that the attacks, aggression and harassment targeted at defenders of the environment have become more pronounced in some States of the hemisphere, mainly where there are serious tensions between the sectors that support certain industrial activities, like the extractive industries, which have enormous economic interests at stake, and those sectors that resist the implementation of projects in order to avoid the forced relocation of the communities that will be inevitable if the projects are established or to prevent the harmful effects of the contamination that the industries will produce in the waters, air, soil and subsoil."); *see also ibid.* ¶¶ 317–324.

66 *See, e.g. Blanca Jeanette Kawas*, 13 October 2005, IACHR Admissibility Report No. 67/05, (admitting a claim under the American Convention alleging that the victim was killed as part of a pattern of extrajudical executions of environmental defenders in the State); and IACHR Admissibility Report No. 58/06, *Edwin Haroldo Ochoa López and Julio Armando Vásquez Ramírez v. Guatemala*, 20 July 2006 (admitting a claim under the American Convention alleging that the State failed to conduct a proper investigation into murders, which purportedly occurred in reprisal for the victims work in defense of environmental resources).

the environment that may result in harm to the life or health of the population or the way of life of indigenous peoples in their ancestral territories."[67]

71. The Inter-American Court has highlighted generally the special duty of the State when it comes to human rights defenders.[68] Further, both the Inter-American Court and the IACHR have articulated specific duties to which States are subject in relation to those who actively seek to protect the enjoyment of human rights through the defense of a healthy environment.

72. The IACHR has most often discussed the duties of States in relation to human rights defenders when granting precautionary measures. The requests for precautionary measures in relation to human rights defenders striving against environmental harm largely involve situations in which the lives and or physical integrity of individuals or groups are at stake. Accordingly, the precautionary measures granted by the Commission have imposed duties on the States to adopt the measures necessary to protect the rights to life and physical integrity of the human rights defenders in question. For example, in the case of *Mauricio Meza v. Colombia*, the IACHR issued precautionary measures requesting the State to adopt measures to protect a human rights defender and environmentalist who had been harassed and subjected to an attempted kidnapping for his activities.[69] Typically, the obligation imposed on the States is one

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67 *Report on the Situation of Human Rights Defenders in the Americas*, note 63 *supra*, Chap. IV, ¶ 242.

68 *See, e.g., Kawas-Fernández v. Honduras*, note 16 *supra*.

69 *Mauricio Meza v. Colombia*, 18 November 2009, IACHR PM 240/09. *See also Edgar Ismael Solorio Solís et al v. Mexico*, 6 November 2012, IACHR PM 388/12; *Telma Yolanda Oqueli Veliz and family v. Guatemala*, 24 August 2012, IACHR PM 207/12; *Family of Javier Torres Cruz v. Mexico*, 19 July 2011, IACHR PM 344/08; *Héctor Antonio García Berríos et al. v. El Salvador*, 7 October 2009, IACHR PM 239/09; *Marco Arana, Mirtha Vásquez, et al.*, 23 April 2007, IACHR Decision on Precautionary Measures; *Daniel Joseph Vogt et al. v. Guatemala*, 30 March 2007, IACHR Decision on Precautionary Measures; and *Carlos Albacete Rosales and Piedad Espinosa Albacete v. Guatemala*, 22 January 2007, IACHR Decision on Precautionary Measures.

of ends and not means; however, in one case the IACHR provided specific directions to the State about certain protective actions to be taken.[70] In certain cases the IACHR has also required the State to reach agreement with the beneficiaries and their representatives about the protective measures to be adopted.[71]

73. Precautionary measures have also imposed a duty on States to report on the actions taken to protect the life and physical integrity of the beneficiaries or to verify the effective implementation of the measures of protection by the competent authorities.[72]

74. Both the Inter-American Court and the IACHR have stated that States are under a duty to investigate—including judicially—the facts giving rise to the violations in the particular case or the relevant precautionary measures, and to report on the steps taken as part of that

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[70] *See Marco Arana, Mirtha Vásquez, et al.*, note 69 *supra* (requiring the State to provide perimeter surveillance for the headquarters of the NGO under threat and to provide police accompaniment to the NGO's personnel traveling to the peasant communities).

[71] *See, e.g.*, *Family of Javier Torres Cruz v. Mexico*, note 69 *supra*; *Telma Yolanda Oqueli Veliz and family v. Guatemala*, note 69 *supra*.

[72] *See, e.g.*, *Marco Arana, Mirtha Vásquez, et al.*, note 69 *supra*.

investigation.[73] There is also a duty on States to identify, prosecute, and punish those found responsible during the investigation.[74]

75. In the *Case of Kawas Fernández*, the Inter-American Court also required that the State compensate relatives of the human rights defender for pecuniary and non-pecuniary damage in relation to her death.[75] In addition, the Court required the State to: (i) publish excerpts from its judgment in newspapers of major national circulation; (ii) make a public acknowledgment of international responsibility for the human rights violations; (iii) construct a monument in memoriam of the human rights defender; and (iv) carry out a national awareness campaign regarding the importance of the work performed by environmentalists in the State.[76]

B. SUBSTANTIVE OBLIGATIONS

76. The primary substantive obligations imposed on States in the Inter-American system include the obligations to adopt and implement measures to protect the environment and

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[73] *See, e.g., Kawas-Fernández v. Honduras*, note 16 *supra*, ¶¶ 187–195; *Blanca Jeannette Kawas-Fernández* v. *Honduras*, 4 February 2008, IACHR Application to the Inter-American Court of Human Rights, Case 12.507, ¶ 96 ("States Parties have an obligation to take every kind of measure to ensure that no one is deprived of judicial protection or denied the exercise of his or her right to a simple and effective recourse. Accordingly, the State has an obligation to investigate human rights violations, to prosecute those responsible, compensate the victims and ensure that the crimes do not go unpunished. That obligation has special connotations when, as in the case at hand, the evidence suggests that members of State security forces either acquiesced in or connived in the violations and when the violations occurred against a backdrop of violence against persons who defend Honduras' environmental resources."); *Mauricio Meza v. Colombia*, note 69 *supra* ; *Telma Yolanda Oqueli Veliz and family v. Guatemala*, note 69 *supra* ; *Family of Javier Torres Cruz v. Mexico*, note 69 *supra* ; *Héctor Antonio García Berríos et al. v. El Salvador*, *supra* note 69; *Marco Arana, Mirtha Vásquez, et al.*, note 69 *supra* ; *Daniel Joseph Vogt et al. v. Guatemala*, note 69 *supra* ; *Carlos Albacete Rosales and Piedad Espinosa Albacete v. Guatemala*, note 69 *supra*.

[74] *Case of Kawas-Fernández v. Honduras*, note 16 *supra*, ¶¶ 162–86.

[75] *Ibid*. ¶ 186.

[76] *Ibid*. ¶¶ 197–206, 210–15. The Inter-American Court stated that the events causing the death of the human rights defender were motivated by her work in defense of the environment through a foundation and that her death resulted in the deprivation of her right to associate freely with others under Article 16 of the American Convention. *See ibid*. ¶¶ 151–55.

to take adequate measures to address the risks to the enjoyment of human rights that may be posed by environmental and health hazards from development activities.

1. Obligations to adopt and implement measures to protect the environment

77. States have duties duty to adopt and implement measures of a legislative nature to ensure human rights, and such duties also apply to the protection against environmental harm that could threaten those rights.[77] As the IACHR confirmed in respect of the rights to life and to physical integrity, "Article 2 of the American Convention requires that where these rights are not adequately ensured through legislative and other means, the State must take the necessary corrective measures."[78]

78. The IACHR has recommended that States adopt specific measures to protect the environment in order to comply with their obligations in relation to the rights to health and life.[79] The Commission has explained:

> The IACHR has further recognized the link between the protection of the environment and the right to health. In 1983, in its report on the situation of human rights in Cuba, the IACHR recommended that the State adopt specific measures to protect the environment in order to comply with its obligations appurtenant to the right to health, explaining that a healthy environment is essential for a healthy population, and noting that factors such as water provision,

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77 *See, e.g., Raposa Serra Do Sol Indigenous Peoples v. Brazil*, note 27 *supra*, ¶ 47 (finding admissible allegations that the State had failed to comply with the obligation to respect rights and the duty to adopt domestic measures of a legislative or other nature in order to ensure the enjoyment of rights under the American Convention).

78 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII.

79 *Ibid*. ("States Parties are required to take certain positive measures to safeguard life and physical integrity. Severe environmental pollution may pose a threat to human life and health, and in the appropriate case give rise to an obligation on the part of a state to take reasonable measures to prevent such risk, or the necessary measures to respond when persons have suffered injury.").

> basic sanitation and hygiene services, and waste management bear an important impact in this regard.[80]

79. The IACHR provides broad discretion to States to choose internal means to protect the environment, but it has stated that no matter what methods are used, the State must effectively enforce measures in place in relation to private parties. In this respect, the IACHR has explained that:

> To protect the environment, in practice States have resorted to a variety of internal means… including the establishment of quality, production or emissions standards; licensing or regulation of dangerous activities; the provision of economic incentives or disincentives; penalties for particularly harmful activities through criminal law; or the creation of private liability regimes to discourage and compensate for environmental damage. As the IACHR has previously observed, whatever internal course of action is selected, effective enforcement of the environmental protection measures in relation to private parties, particularly extractive companies and industries, is essential to avoid the State's international responsibility for violating the human rights of the communities affected by activities detrimental to the environment.[81]

2. Obligation to take adequate measures to address the risks to the enjoyment of human rights that may be posed by environmental and health hazards from development activities

80. States are also under an obligation to address the risks to the enjoyment of human rights that may be posed by development activities, in particular to avoid environmental and

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80 *IACHR Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources, Norms and Jurisprudence of the Inter-American Human Rights System*, 30 December 2009, OEA/Ser.L/V/II. Doc. 56/09, ¶ 196 (referencing *The Situation of Human Rights in Cuba*, note 34 *supra*, ¶¶ 1, 2, 41, 60, 61).

81 *Second Report on the Situation of Human Rights Defenders in the Americas*, note 15 *supra*, ¶ 315 (citing Dinah Shelton, *Environmental Rights and Brazil's Obligations in the Inter-American Human Rights System*, The George Washington Int'l Law Rev., Vol. 40, No. 3, 2008–09, p. 736. *See also Indigenous and Tribal Peoples' Rights Over Their Ancestral Lands and Natural Resources,* note 80 *supra*, ¶¶ 191, 203).

health hazards that could threaten individuals or groups.[82] As the IACHR has indicated, economic development in particular must take place subject to the establishment of mechanisms and procedures that ensure respect for the rights of affected individuals.[83]

C. OBLIGATIONS RELATING TO INDIGENOUS AND TRIBAL PEOPLES[84]

81. States owe particular obligations to protect the enjoyment of human rights of indigenous and tribal peoples against the threat of environmental harm.[85]

82. Indigenous peoples are dependent for their physical well-being and livelihoods upon access to their lands and the use and enjoyment of the natural resources on those lands. The IACHR has confirmed that the protection of the natural resources on indigenous peoples' territories and the environmental integrity of their lands are necessary to protect the enjoyment of their human rights. For example, the Commission has stated:

> These rights are directly affected whenever pollution, deforestation, contamination of waters, or other significant

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82 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII ("The Commission recommends that the State continue and enhance its efforts to address the risks identified by the Ministry of Mines and Energy with respect to other development activities, such as gold mining being carried out in the Oriente, which poses a serious risk of contamination and danger to human health, due to the use by small-scale operators of unsophisticated methods involving mercury and cyanide.").

83 *See ibid.*

84 The term indigenous people as used in this report also includes tribal peoples. As the Inter-American Court has explained, "the Court's jurisprudence regarding indigenous peoples' right to property is also applicable to tribal peoples because both share distinct social, cultural, and economic characteristics, including a special relationship with their ancestral territories, that require special measures under international human rights law in order to guarantee their physical and cultural survival." *Case of the Saramaka People v. Suriname*, 28 November 2007, Preliminary Objections, Merits, Reparations, and Costs Judgment (Ser. C No. 172), ¶ 86.

85 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. IX ("Within international law generally, and inter-American law specifically, special protections for indigenous peoples may be required for them to exercise their rights fully and equally with the rest of the population. Additionally, special protections for indigenous peoples may be required to ensure their physical and cultural survival — a right protected in a range of international instruments and conventions.").

> environmental damage occurs in ancestral territories. This implies that the State must undertake preventive and positive action aimed at guaranteeing an environment that does not compromise indigenous persons' capacity to exercise their most basic human rights.[86]

83. The following discussion reviews special obligations of States towards indigenous peoples in relation to environmental protection.

1. Obligation to adopt measures to ensure recognition of the right to property of indigenous peoples

84. The IACHR has recognized that the protection of the right to property under Article 21 of the American Convention is especially important for indigenous peoples in light, in particular, of their dependence on their ancestral territories for their cultural, spiritual, and economic survival.[87] Indigenous peoples' access to land and natural resources on which they depend is a prerequisite for the enjoyment by indigenous peoples of many human rights,

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86 *See Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources,* note 80 *supra*, ¶ 194.

87 *See, e.g.*, IACHR Allegations before the Inter-American Court of Human Rights in the *Case of Yakye Axa v. Paraguay*, referenced in the *Yakye Axa Indigenous Community v. Paraguay*, note 36 *supra*, ¶ 120(c) (" protection of the right of indigenous peoples to their ancestral lands is a matter of special importance, as its enjoyment involves not only protection of an economic entity but also protection of the human rights of a collectivity whose economic, social and cultural development is based on its relation with the land"). *See also Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources,* note 80 *supra*, ¶ 179 ("Many indigenous and tribal peoples live in areas rich in living and non-living resources, including forests that contain abundant biodiversity, water, and minerals. Historically, the desire of non-indigenous society for such resources has resulted in the removal, decimation or extermination of many indigenous communities. Today, the survival and integrity of the Hemisphere's remaining indigenous and tribal peoples requires recognition of their rights to the resources found on their lands and territories on which they depend for their economic, spiritual, cultural, and physical well-being."); IACHR *Annual Report 2010*, Chap. IV (*Human Rights Developments in the Region,* Colombia), ¶ 167 ("The protection of the right to property over land under Article 21 of the American Convention, has particular importance for indigenous peoples, since the guarantee of the right to territorial property is a fundamental platform for the development of the indigenous communities' culture, spiritual life, integrity and economic survival. It constitutes a prerequisite for the rights to live in conditions of dignity, to food, to water, to health, to honor and dignity, and to free movement and residence.").

including the rights to life and health.[88] The Inter-American Court has also acknowledged that the right to property of indigenous peoples is connected to "the collective right to survival as an organized people, with control over their habitat as a necessary condition for reproduction of their culture, for their own development and to carry out their life aspirations."[89] The IACHR and the Inter-American Court have elaborated certain key aspects of the right to property of indigenous peoples under the American Convention.

85. One critical feature of the right to property in connection with the grant of concessions to exploit natural resources and to develop projects on land traditionally occupied by indigenous people is the right to have their communal property right to those lands recognized.[90]

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88 *See, e.g.*, IACHR, *Democracy and Human Rights in Venezuela*, 30 December 2009, Doc. OEA/Ser.L/v/II, Doc. 54, Chap. VII (*Economic, Social, and Cultural Rights*), ¶ 1080; *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 153 (internal citations omitted) ("The lack of granting of title, delimitation, demarcation and possession of ancestral territory, hampering or preventing access to land and natural resources by indigenous and tribal peoples, is directly and causally linked to situations of poverty and extreme poverty among families, communities and peoples. In turn, the typical circumstances of poverty trigger cross-cutting violations of human rights, including violations of their rights to life, to personal integrity, to a dignified existence, to food, to water, to health, to education and the rights of children.").

89 *Yakye Axa Indigenous Community v. Paraguay*, note 36 *supra*, ¶146. *See also Sawhoyamaxa Indigenous Community v. Paraguay*, note 56 *supra*, ¶ 120 ("the close ties of indigenous peoples with their traditional lands and the native natural resources thereof, associated with their culture … must be secured under Article 21 of the American Convention").

90 The right of indigenous people to the processing and recognition of their territorial claims has also been found to implicate other human rights, including the rights to life, physical integrity, juridical personality, a fair trial, and judicial protection, as well as the rights of children. *See, e.g.*, *Case of the Xákmok Kásek Indigenous Community v. Paraguay*, 24 August 2010, Merits, Reparations, and Costs Judgment (Ser. C No. 214) (Paraguay violated Articles 21, 8, 25, 4, 5 , 3, and 19 of the American Convention by failing to ensure the rights of the Xákmok Kásek Indigenous Community to their ancestral property. The Inter-American Court determined that, by delaying the processing of the tribe's territorial claims, the State rendered it impossible for the tribe to take control of their property and placed the tribe in a vulnerable situation with regards to medicine, food, and sanitation that threatened the tribe's integrity and survival.); *Sawhoyamaxa Indigenous Community v. Paraguay*, note 56 *supra*, ¶¶ 144, 170 (holding that Paraguay violated both Articles 21 and 4 of the American Convention in delaying the processing of the tribe's territorial claims, which had the effect of barring the tribe from possessing its land and exposing them to nutritional, medical, and health vulnerability, thereby threatening their lives and

86. States are under a duty to respect the communal property rights of indigenous peoples to the lands that they have traditionally used.[91] The IACHR first referred to the duty of States to defend indigenous lands in the *Case of the Guahibo* in Colombia in 1970.[92] In 1985, in the *Case of the Yanomami Indians*,[93] the IACHR recommended that the State set and demarcate the territory of the Yanomami—the first time that it had made such a request of a State.[94] It is now clearly established that States are required effectively to delimit and demarcate the ancestral property of indigenous peoples. For example, in the *Case of the Mayagna (Sumo) Awas Tingni Community*, the Inter-American Court confirmed that:

> the members of the Awas Tingni Community have the right that the State

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integrity); *Saramaka People v. Suriname*, note 84 *supra*, ¶ 175 (finding that Suriname violated Articles 3 and 25 of the Convention by refusing to recognize a juridical personality in the tribal group, leaving it unable to challenge violations in court and therefore unable to obtain an effective domestic remedy); *Raposa Serra Do Sol Indigenous Peoples v. Brazil*, note 27 *supra*, ¶ 45 (finding admissible the petitioners' claim that the State has violated the right to property of the Raposa indigenous people as a result of the delay in the process of demarcation of their ancestral territory and the ineffectiveness of the judicial protection aimed at ensuring their right to property).

91 The IACHR has confirmed that the property rights of indigenous peoples are not conditioned on the existence of formal title to property or on the conclusion of demarcation procedures, but rather "exist even without State actions which specify them" given that such peoples have "communal property rights to land and natural resources based on traditional patterns of use and occupation of ancestral territory." *See Report on Indigenous and Tribal Peoples' Rights Over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 187 (citing IACHR *Arguments before the Inter-American Court of Human Rights in the Case of Awas Tingni v. Nicaragua*, cited in the *Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua*, 31 January 2001, Merits, Reparations and Costs Judgment (Ser. C No. 79), ¶ 140(a)).

92 IACHR, *The Human Rights Situation of the Indigenous People in the Americas*, 20 October 2000, OEA/Ser.L/V/II.108, Doc. 62, Chap. III., "Doctrine and Jurisprudence of the IACHR on Indigenous Rights (1970–1999)".

93 *Indios Yanomami Chile*, 5 March 1985, IACHR Resolution 12/85, Case 7615, Recommendation 3(b) (recommending that "the Government of Brazil, through the FUNAI and in conformity with its laws, proceed to set and demarcate the boundaries of the Yanomami Park").

94 *The Human Rights Situation of the Indigenous People in the Americas*, note 92 *supra*, Chap. III.

> a) carry out the delimitation, demarcation, and titling of the territory belonging to the Community; and
>
> b) abstain from carrying out, until that delimitation, demarcation, and titling have been done, actions that might lead the agents of the State itself, or third parties acting with its acquiescence or its tolerance, to affect the existence, value, use or enjoyment of the property located in the geographical area where the members of the Community live and carry out their activities.[95]

87. Similarly, in the *Case of the Sawhoyamaxa Indigenous Community*, the Inter-American Court held that the State had violated Articles 4 and 21 of the American Convention by delaying the processing of the tribe's territorial claims, which had the effect of barring the tribe from possessing its land and exposing them to nutritional, medical, and health vulnerability, thereby threatening their lives and integrity.[96]

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95 *Mayagna (Sumo) Awas Tingni Community v. Nicaragua*, note 91 *supra*, ¶ 153. *See also Yakye Axa Indigenous Community of the Enxet-Lengua People v. Paraguay*, note 36 *supra*. Similar findings have been made by the IACHR. *See, e.g.*, *Maya Indigenous Communities of the Toledo District v. Belize*, note 32 *supra*, ¶ 193 ("The State violated the right to property enshrined in Article XXIII of the American Declaration to the detriment of the Maya people, by failing to take effective measures to recognize their communal property right to the lands that they have traditionally occupied and used, without detriment to other indigenous communities, and to delimit, demarcate and title or otherwise established the legal mechanisms necessary to clarify and protect the territory on which their right exists."); *Kuna of Madungandí and Embrerá of Bayano Indigenous Peoples and Their Members v. Paraguay*, 21 April 2009, IACHR Admissibility Report 58/09, ¶ 58 ("with respect to the allegations of lack of protection of the boundaries of the Kuna of Madungandí people's lands legally recognized by the State, and of the failure to physically demarcate and officially recognize the lands at present inhabited by the Emberá of Bayano people, the Commission finds that they tend to establish a violation of Article 21 of the American Convention").

96 *Case of the Sawhoyamaxa Indigenous Community v. Paraguay*, note 56 *supra*, ¶¶ 144, 166. *See also Case of the Xákmok Kásek Indigenous Community v. Paraguay*, note 90 *supra* (finding that through delaying the processing of the community's territorial claims, the State prevented the community from asserting control over their property and ordering the State to return the ancestral property); *Case of the Yakye Axa Indigenous Community of the Enxet-Lengua People v. Paraguay*, note 36 *supra* (holding that the State violated Articles 4, 21, 8, and 25 of the American Convention by failing to provide the Yakye Axa community with assistance during the processing of its claim over traditional territories and failing to conclude administrative processing of the community's bid to recover land and ordering the State promptly to identify and convey the relevant land to the community).

88. The IACHR has requested States to put in place legislative and administrative measures to ensure the recognition of rights relating to the land of indigenous peoples.[97]

89. The Inter-American Court has also stated that the right to right to personal integrity under Article 5(1) of the American Convention was violated through the State's failure to protect the rights of an indigenous community to its traditional territory.[98]

2. Obligations specific to children on indigenous peoples' land

90. The Inter-American Court and the IACHR have stated that activities that deprive an indigenous community of access to its land are a threat to the ability of children to enjoy the protections granted under Article 19 of the American Convention, which provides that "[e]very minor child has the right to the measures of protection required by his condition as a minor on the part of his family, society, and the state."

91. For example, the Inter-American Court, in the *Case of the Xákmok Kásek Indigenous Community v. Paraguay*, found that the State had failed to take the necessary measures of protection for the children of a community whose rights to their ancestral property were not guaranteed, thereby adversely impacting its access to water, food, health care and

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97 *See, e.g.*, IACHR, *Fifth Report on the Situation of Human Rights in Guatemala*, 6 April 2001, Chap. XI (*The Rights of Indigenous Peoples*), ¶ 59 ("rights relating to the land of the indigenous peoples include both communal or collective and individual land tenure, rights of ownership and possession and other real rights, and the use of natural resources for the benefit of the communities without detriment to their habitat. Legislative and administrative measures must be developed to ensure recognition, the awarding of titles, protection, recovery, restitution and compensation for those rights"); *Mary and Carrie Dann v. United States*, 27 December 2002, IACHR Report No. 75/02, Case 11.140 (recommending that the State adopt the necessary legislative or other measures necessary to ensure respect for the petitioners' right to property in the Western Shoshone ancestral lands).

98 *See, e.g., Case of the Xákmok Kásek Indigenous Community v. Paraguay*, note 90 *supra*, ¶ 244 .

education. The Court stated that "the proven situation of extreme vulnerability affected the children in particular."[99]

92. Similarly, the Commission considered claims that the State had violated the fundamental rights of members of the Sarayaku indigenous community through the direct actions of State agents supporting the incursion of an oil company onto Sarayaku ancestral lands without consultation, as well as threats and harassment suffered by girls of the community, potentially to constitute a violation of Article 19.[100]

3. Obligations relating to the granting of concessions on the property of indigenous peoples

93. Concerns arise, in particular, in relation to development activities such as the exploitation of natural resources on indigenous peoples' lands.[101] The Inter-American Court has made clear that "the natural resources found on and within indigenous and tribal people's territories that are protected under Article 21 are those natural resources traditionally used and necessary for the very survival, development and continuation of such people's way of life."[102]

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99 *Ibid.* ¶ 259. *See generally* ¶ ¶ 256–64.

100 *The Kichwa Peoples of the Sarayaku Community and its Members v. Ecuador*, 13 October 2004, IACHR Admissibility Report No. 64/04, ¶ 74. *See also Community of San Mateo de Huanchor v. Peru*, note 30 *supra*, ¶ 66 ("the events that were denounced with regard to the effects of the environmental pollution of the Mayoc sludge, which has created a public health crisis in the population of San Mateo de Huanchor, if proven, could be characterized as a violation of the right to personal security, right to property, rights of the child").

101 *See, e.g.*, IACHR *Report on the Situation of Human Rights in Brazil*, 29 September 1997, OEA./Ser.L/V/II.97, Doc. 29 rev. 1, Chap. VI (*Human Rights of the Indigenous Peoples in Brazil*), ¶ 82(f) ("The Yanomami people have obtained full recognition of their right to ownership of their land. Their integrity as a people and as individuals is under constant attack by both invading prospectors and the environmental pollution they create. State protection against these constant pressures and invasions is irregular and feeble, so that they are constantly in danger and their environment is suffering constant deterioration."); *ibid.* ¶ 33 (stating that illegal extraction of natural resources in indigenous territories constitutes threats to property rights to indigenous territories).

102 *Saramaka People v. Suriname*, note 84 *supra*, ¶ 122.

The Commission has stated that indigenous peoples have rights that must be respected in relation to such development activities and that States are not at liberty to dispose of those natural resources without constraints. On the contrary, as the Commission indicated:

> Inter-American jurisprudence has identified rights of indigenous and tribal peoples that States must respect and protect when they plan to extract subsoil resources or exploit water resources; such rights include the right to a safe and healthy environment, the right to prior consultation and, in some cases, informed consent, the right to participation in the benefits of the project, and the right of access to justice and reparation.[103]

94. The property rights of indigenous peoples over their ancestral lands and natural resources are not absolute.[104] The Inter-American Court has recognized that notwithstanding the "interconnectedness between the right of members of indigenous and tribal peoples to the use and enjoyment of their lands and their right to those resources necessary for their survival, said property rights, like many other rights recognized in the Convention, are subject to certain limitations and restrictions."[105] The Court has held that a State may restrict indigenous peoples' right to property, including their rights to natural resources on their territories, where restrictions are: (1) previously established in law; (2) necessary; (3) proportional; and (4) with the aim of achieving a legitimate objective in a democratic society.[106]

95. Additionally, in order for restrictions on the property rights of indigenous peoples to be permissible in relation to the use and enjoyment of their lands and natural resources, those

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103 *See* Report on *Indigenous and Tribal Peoples' Rights Over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 180.

104 *Saramaka People v. Suriname*, note 84 *supra*, ¶ 143 ("Article 21 of the Convention does not *per se* preclude the issuance of concessions for the exploration and exploitation of natural resources or tribal territories.").

105 *Ibid.* ¶ 127.

106 *Ibid.*

restrictions must not amount "to a denial of their traditions and customs in a way that endangers the very survival of the group and of its members."[107] To ensure that restrictions on property rights—through the granting of concessions on their territories—preserve, protect and guarantee the special relationship that indigenous peoples have with their ancestral lands, and do not endanger their survival, States must comply with certain safeguards articulated by the Inter-American Court.[108]

a) First safeguard: obligation to ensure the effective participation of indigenous peoples in decision-making, including the obligation to obtain free, prior, and informed consent of indigenous peoples

96. The Inter-American system imposes an obligation on States to enable indigenous peoples to participate in decision-making regarding development activities taking place on their traditional lands. As the IACHR has indicated:

> States must 'promote, consistent with their relevant international obligations, participation by indigenous peoples and communities affected by projects for the exploration and exploitation of natural resources by means of prior and informed consultation aimed at garnering their voluntary consent to the design, implementation, and evaluation of such projects, as well as to the determination of benefits and indemnization for damages according to their own development priorities.' Through such prior consultation processes, indigenous and tribal peoples' participation must be guaranteed 'in all decisions on natural resource projects on their lands and territories, from design, through tendering and award, to execution and evaluation.'[109]

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107 *Ibid*. ¶ 128. *See also* IACHR *Third Report on the Situation of Human Rights in Colombia*, 26 February 1999, OEA/Ser./L/VII.102, Doc. 9, rev. 1, Chap. X (*The Rights of Indigenous Peoples*), Sect. J, Rec. 5 (the State should "ensure that major development projects in or near indigenous lands or areas of indigenous population, carried out after complying with the requirements of the law, do not cause irreparable harm to the religious, economic or cultural identity and rights of indigenous communities").

108 *See, e.g. Saramaka People v. Suriname,* note 84 *supra*, ¶ 129.

109 *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 290 (internal citations omitted). *See also Annual Report of the Inter-American Commission on Human Rights 2011*, Chap. II: (*Legal Bases and Activities 2011*), ¶ 17

97. The Inter-American Court has held that, in order to guarantee the effective participation of indigenous people, States have "a duty to actively consult with [affected communities] according to their customs and traditions."[110] Similarly, the IACHR has indicated that the right to be consulted is essential to indigenous and tribal peoples' communal property rights over their ancestral lands.[111] The IACHR has also confirmed that it is the State's duty to carry out consultation processes and this responsibility cannot be delegated to third parties, such as an entity seeking a concession or an investment contract.[112]

(expressing "concern at the forced displacements taking place in many countries of the region as a consequence of the construction of mega dams and exploitation of natural resources on indigenous peoples and Afro-descendants' land, in most cases putting at risk the survival of these peoples" and requesting that "States adopt measures to overcome the obstacles preventing the full exercise of the right to prior, free, and informed consultation with the indigenous and Afro-descendent populations on decisions affecting their lands"); *Access to Justice and Social Inclusion: The Road Towards Strengthening Democracy in Bolivia*, note 27 *supra*, Chap. IV, Part F (*Recommendations*), ¶ 5 ("Consistent with its international obligations, [the State must] guarantee the participation of indigenous peoples and affected communities in projects for the exploration and exploitation of natural resources, through prior and informed consultations designed to obtain their free consent in the design, execution and evaluation of those projects, as well as in determining benefits and compensation for damages, according to their own development priorities.").

110 *Saramaka People v. Suriname*, note 84 *supra*, ¶ 133.

111 *See, e.g.*, *Maya Indigenous Communities of the Toledo District v. Belize*, note 32 *supra*, ¶ 155 ("the Commission has specifically concluded in its analysis in this case that the duty to consult is a fundamental component of the State's obligations in giving effect to the communal property right of the Maya people in the lands that they have traditionally used and occupied"); *The Kichwa Peoples of the Sarayaku Community and its Members v. Ecuador*, note 100 *supra*, ¶ 74 (indicating that irregularities in the consultation process in relation to an oil exploration and exploitation concession on indigenous lands could violate rights including the right to property).

112 *Indigenous and Tribal Peoples' Rights Over Their Ancestral Lands and Natural Resources*, *supra* note 80, ¶ 291 ("Carrying out consultation procedures is a responsibility of the State, and not of other parties, such as the company seeking the concession or investment contract. In many of the countries that form part of the Inter-American system, the State responsibility to conduct prior consultation has been transferred to private companies, generating a *de facto* privatization of the State's responsibility. The resulting negotiation processes with local communities then often fail to take into consideration a human rights framework, because corporate actors are, as a matter of definition, profit-seeking entities that are therefore not impartial. Consultation with indigenous peoples is a duty of States, which must be complied with by the competent public authorities.").

98. There are several components to the States' duty to consult. First, States are under a duty to ensure that consultations with indigenous peoples are effective. Accordingly, members of the group must be fully informed of potential risks, including environmental and health risks.[113] The Inter-American Court has indicated that the duty to obtain informed consent "requires the State to both accept and disseminate information" and "entails constant communication between the parties."[114] Information sharing and consultations are necessary to guarantee that indigenous peoples are made "aware of possible risks, including environmental and health risks, in order that the proposed development or investment plan is accepted knowingly and voluntarily."[115]

99. Similarly, the IACHR has noted that "[a]ccess to information is a prerequisite for public participation in decision-making and for individuals to be able to monitor and respond to

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113 *See, e.g., Saramaka People v. Suriname*, note 84 *supra*, ¶ 133; *Maya Indigenous Communities of the Toledo District v. Belize*, note 32 *supra*, ¶ 142 ("[O]ne of the central elements to the protection of indigenous property rights is the requirement that states undertake effective and fully informed consultations with indigenous communities regarding acts or decisions that may affect their traditional territories. As the Commission has previously noted, Articles XVIII and XXIII of the American Declaration specially oblige a member state to ensure that any determination of the extent to which indigenous claimants maintain interests in the lands to which they have traditionally held title and have occupied and used is based upon a process of fully informed consent on the part of the indigenous community as a whole. This requires, at a minimum, that all of the members of the community are fully and accurately informed of the nature and consequences of the process and provided with an effective opportunity to participate individually or as collectives.").

114 *Saramaka People v. Suriname*, note 84 *supra*, ¶ 133.

115 *Ibid. See also Case of the Saramaka People v. Suriname*, 12 August 2008, Interpretation of the Judgment of Preliminary Objections, Merits, Reparations and Costs, (Ser. C No. 185), ¶ 17 ("the State has a duty, from the onset of the proposed activity, to actively consult with the Saramaka people in good faith and with the objective of reaching an agreement, which in turn requires the State to both accept and disseminate information in an understandable and publicly accessible format").

public and private sector action. Individuals have a right to seek, receive and impart information and ideas of all kinds pursuant to Article 13 of the American Convention."[116]

100. Second, consultations with indigenous peoples about activities on their lands must be conducted "in good faith, through culturally appropriate procedures and with the objective of reaching an agreement."[117] The Inter-American Court has indicated that, for consultations with indigenous peoples to be culturally appropriate, they must be conducted in accordance with their customs and traditions, through culturally adequate procedures, and in light of their traditional decision-making procedures.[118]

101. Third, the consultations must take place "at the early stages of a development or investment plan, not only when the need arises to obtain approval from the community."[119] As the Inter-American Court stated in the *Case of the Saramaka People*:

> [T]he Saramakas must be consulted, in accordance with their own traditions, at the early stages of a development or investment plan, not only when the need arises to obtain approval from the community, if such is the case. Early notice provides time for

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116 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII. *See also ibid.* Chap. IX (recommending also that "the State take the measures necessary to ensure the meaningful and effective participation of indigenous representatives in the decision-making processes about development and other issues which affect them and their cultural survival. 'Meaningful' in this sense necessarily implies that indigenous representatives have full access to the information which will facilitate their participation."). *See also Ngöbe Indigenous Communities v. Panama*, note 30 *supra*, ¶ 46; *Indigenous Communities of the Xingu River Basin, Pará v. Brazil*, 1 April 2011, IACHR PM 382/10 (granting precautionary measures on behalf of the indigenous communities of the Xingu River Basin in Pará, Brazil, requesting that the State immediately suspend the licensing process for the Belo Monte Hydroelectric Plant project and stop any construction work from moving forward until certain minimum conditions are met, and conduct prior consultations that are free, informed, in good faith, culturally appropriate, and have the aim of reaching an agreement).

117 *Saramaka People v. Suriname*, note 84 *supra*, ¶ 133.

118 *Ibid*.

119 *Ibid*.

> internal discussion within communities and for proper feedback to the State.[120]

102. Accordingly, the consultation process must take place prior to the development activity being approved by the State: during the exploratory or planning phase of the relevant project and "preceding the design and execution of natural resource projects on the ancestral lands and territories of indigenous peoples."[121]

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120 *Ibid*.

121 *Access to Justice and Social Inclusion: The Road towards Strengthening Democracy in Bolivia*, note 27 *supra*, ¶ 249. *See also Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, Chap. IX, ¶ 289 (internal citations omitted) ("When States grant natural resource exploration or exploitation concessions to utilize property and resources encompassed within ancestral territories, they must adopt adequate measures to develop effective consultations, prior to granting the concession, with communities that may potentially be affected by the decision. The right of every person to participate in governance (Art. 23, American Convention on Human Rights), applied to indigenous peoples in the framework of development projects carried out over the lands, territories and natural resources they use or occupy, translates into prior, free and informed consultation processes, as stated in ILO Convention No. 169."), *ibid*. ¶ 304 (internal citations omitted) ("As for projects and concessions for natural resource exploitation or extraction in indigenous territories, consultation must be carried out from the very moment of evaluation of the grant of a concession: States must secure, beforehand, the effective participation of the affected indigenous or tribal people, through their traditional decision-making methods, both in relation to the process of evaluating the granting of concessions in their territory, and in the adoption of the corresponding decisions. This is also the meaning of Article 15 of ILO Convention No. 169, which requires States to conduct consultations with indigenous peoples 'before undertaking or permitting any programmes for the exploration or exploitation of such resources pertaining to their lands.' The prior nature of consultation in these instances is also confirmed by the United Nations Declaration, which clarifies that consultation must be conducted "prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources."); *IACHR Inter-American Legal Framework regarding the Right to Access to Information, Office of the Special Rapporteur for Freedom of Expression*, 30 December 2009, OEA/Ser.L/V/II, CIDH/RELE/INF. 1/09 , ¶ 69 ("[O]ne of the central elements for the protection of indigenous property rights is that States establish effective and previously-informed consultations on actions and decisions that could affect their traditional territories. Members States have the obligation to guarantee that every decision is based on a process of previously-informed consent of the Indigenous People as a whole."); IACHR, *Democracy and Human Rights in Venezuela*, note 88 *supra*, Chap. VII, ¶ 1062 (expressing concern over the exploitation of natural resources in areas inhabited by indigenous peoples in Venezuela without prior consultation with the indigenous peoples, despite the environmental impact on their land, and reminding the State of its obligation to guarantee consultation with and participation of indigenous peoples in measures affecting their territories).

103. Fourth, consultations should take account of the indigenous peoples' traditional methods of decision-making.[122]

104. The IACHR has found failures to facilitate adequate and prior consultation with respect to activities that are potentially harmful to the environment to violate the rights of expression and participation, protected by Articles 13 and 23 of the American Convention.

105. In *Ngöbe Indigenous Communities v. Panama*, a case involving claims that Panama ordered the construction of a hydroelectric dam on Ngöbe ancestral lands without the community's consent, causing serious damage to the land, the environment, and to the Ngöbe way of life, the Commission stated that:

> With regard to the allegation that the alleged lack of prior consultation concerning the Chan-75 Project violated the right to take part in the conduct of public affairs, and the right to seek, receive and disseminate information relating to the matter, the Commission considers that they could characterize alleged violations of Articles 23 and 13 of the Convention. The Commission points out that the petitioners' allegations as to the violation of the right to freedom of expression under article 13 state that the lack of previous consultation with the communities allegedly restricted their access to information about activities that would affect their rights and additionally, there has also been the alleged repression and persecution of community members that have expressed their opposition to the construction of the Chan-75 dam.[123]

106. The Inter-American Court has indicated that under certain circumstances, in order to guarantee the effective participation of indigenous peoples in decision-making regarding development activities that may affect their rights, their free, prior, and informed consent is

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122 *Saramaka People v. Suriname,* note 84 *supra,* ¶ 133.

123 *Ngöbe Indigenous Communities v. Panama*, note 30 *supra*, ¶ 46. *See also The Kichwa Peoples of the Sarayaku Community and its Members v. Ecuador*, note 100 *supra*, ¶ 74.

required.[124] In the *Case of the Saramaka People,* the Court stated that "the Court considers that, regarding large-scale development or investment projects that would have a major impact within Saramaka territory, the State has a duty, not only to consult with the Saramakas, but also to obtain their free, prior, and informed consent, according to their customs and traditions."[125]

107. The Court in *Saramaka People* also quoted the conclusion by the UN Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people that "[f]ree, prior and informed consent is essential for the [protection of] human rights of indigenous peoples in relation to major development projects," and his observation that:

> Wherever [large-scale projects] occur in areas occupied by indigenous peoples it is likely that their communities will undergo profound social and economic changes that are frequently not well understood, much less foreseen, by the authorities in charge of promoting them. […] The principal human rights effects of these projects for indigenous peoples relate to loss of traditional territories and land, eviction, migration and eventual resettlement, depletion of resources necessary for physical and cultural survival, destruction and pollution of the traditional environment, social and community disorganization, long-term negative health and nutritional impacts as well as, in some cases, harassment and violence.[126]

b) Second safeguard: obligations to guarantee that the indigenous people derive reasonable benefit from development activities

108. In considering development or investment activities on ancestral lands, States must also ensure that the indigenous peoples share the benefits of the relevant activity. The Inter-American Court has indicated that the concept of benefit sharing is "inherent to the right of compensation recognized under Article 21(2) of the Convention, which states that "[n]o one shall

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124 *See, e.g. Saramaka People v. Suriname,* note 84 *supra,* ¶¶ 134–37.

125 *Ibid*. ¶ 134.

126 *Ibid*. ¶ 135.

be deprived of his property except upon payment of just compensation, for reasons of public utility or social interest, and in the cases and according to the forms established by law."[127] Accordingly, benefit sharing is a form of compensation resulting from the exploitation of ancestral lands and the natural resources used by indigenous peoples for their survival. According to the IACHR, States must ensure that prior consultation procedures "will establish the benefits that the affected indigenous peoples are to receive, and compensation for any environmental damages, in a manner consistent with their own development priorities."[128]

109. In relation to development projects that do not translate directly into monetary benefits as a result of natural resource exploitation—for example, the construction of infrastructure—fair compensation may not translate into benefit-sharing mechanisms, but may require an adequate compensatory system.[129]

110. According to the Inter-American Court, all issues relating to the consultation process, including the determination of the beneficiaries of the compensation for development and investment projects on indigenous lands, must be made in consultation with the indigenous peoples, and not unilaterally by the State.[130] Further, "these matters can be discussed and addressed during the consultations and process of reaching agreement on the legislative and administrative measures required to give effect to, *inter alia*, the benefit sharing requirement."[131]

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127 *Ibid.* ¶ 138.

128 *Access to Justice and Social Inclusion: The Road Towards Strengthening Democracy in Bolivia*, note 27 *supra*, ¶ 248; *ibid.* ¶ 297, Recommendation 6; *Democracy and Human Rights in Venezuela*, note 88 *supra*, ¶ 1141, Recommendation 6.

129 *See, e.g., Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 384.

130 *Saramaka People v. Suriname*, Interpretation of the Judgment, note 115 *supra*, ¶ 25.

131 *Ibid*.

c) Third safeguard: obligation to conduct environmental and social impact assessments in connection with development activities on indigenous peoples' land

111. States considering proposed development activities on indigenous lands, including projects for the exploitation of natural resources, are under a duty to measure in advance the impact of those activities on the indigenous peoples and their territories.[132] Accordingly, an "environmental and social impact assessment" ("ESIA") must be conducted by an independent and technically qualified entity subject to the supervision of the State before the development activities are approved.[133]

112. In the *Case of the Saramaka People*, the Inter-American Court indicated that "ESIAs serve to assess the possible damage or impact a proposed development or investment project may have on the property in question and on the community."[134] The Court confirmed that:

> "[t]he purpose of ESIAs is not only to have some objective measure of such possible impact on the land and the people, but also … to 'ensure that members of the Saramaka people are aware of possible risks, including environmental and health risks, in order that the proposed development or investment plan is accepted knowingly and voluntarily.'"[135]

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132 *Saramaka People v. Suriname,* note 84 *supra*, ¶ 129 ("Thirdly, the State must ensure that no concession will be issued within Saramaka territory unless and until independent and capable entities, within the State's supervision, perform a prior environmental and social impact assessment.").

133 *Ibid*. ¶¶ 129, 214(9); *Saramaka People v. Suriname*, Interpretation of the Judgment, note 115 *supra*, ¶ 41 ("the ESIAs must be undertaken by independent and technically capable entities, with the State's supervision"); *Indigenous Communities of the Xingu River Basin, Pará v. Brazil*, note 116 *supra* (for there to be an informed consultation process, the State must guarantee that indigenous communities have access beforehand to a project's social and environmental impact study, in an accessible format, including translation into the respective indigenous languages).

134 *Saramaka People v. Suriname*, Interpretation of the Judgment, note 115 *supra*, ¶ 40.

135 *Ibid*. ¶ 40 (citing *Saramaka People v. Suriname,* note 84 *supra*, ¶ 133).

113. In relation to the desired scope and content of ESIAs, the Inter-American Court has indicated that such assessments must be of both a "social and environmental" nature and "must conform to the relevant international standards and best practices."[136] Accordingly, in addition to assessing the potential adverse effects of a proposed development activity upon the environment, an ESIA must also evaluate the direct or indirect impact upon the ways of life of the indigenous peoples who depend for their survival on the relevant territories.[137]

114. The IACHR has interpreted the term "social" in a broad manner, stating:

> [T]he evaluation of social impacts encompasses an assessment of 'the likely impacts, both beneficial and adverse, of a proposed development that may affect the rights, which have an economic, social, cultural, civic and political dimension, as well as the well-being, vitality and viability, of an affected community – that is, the quality of life of a community as measured in terms of various socio-economic indicators, such as income distribution, physical and social integrity and protection of individuals and communities, employment levels and opportunities, health and welfare, education, and availability and standards of housing and accommodation, infrastructure, services.[138]

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136 *See, e.g., ibid.*, ¶ 41 (referring to the *Akwé:Kon Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessments Regarding Developments Proposed to Take Place on, or which are Likely to Impact on, Sacred Sites and on Lands and Waters Traditionally Occupied or Used by Indigenous and Local Communities*, COP-7 (Kuala Lumpur, Feb. 9–20, 2004, Dec. VII/16, Annex. *See also Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 259 ("According to the [*Akwé:Kon*] Guidelines, environmental impact assessments must evaluate 'the likely environmental impacts of, and [propose] appropriate mitigation measures for, a proposed development, taking into account interrelated socio-economic, cultural and human health impacts, both beneficial and adverse.'").

137 *Indigenous and Tribal Peoples' Rights Over Their Ancestral Lands and Natural Resources: Norms and Jurisprudence of the Inter-American Human Rights System*, note 80 *supra*, ¶¶ 254, 257 (referring to World Bank Operational Policy OP 4.01, which requires environmental impact assessments to "identify and assess the potential environmental impacts of a proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures.").

138 *Ibid*. ¶ 260 (citing *Akwé:Kon Guidelines*, note 136 *supra*, ¶ 6(f)). The IACHR also refers to Article 7.3 of ILO Convention No. 169, stating that "in relation to the content of prior impact assessments, ILO Convention No. 169 establishes that such studies must 'assess the social, spiritual, cultural and environmental impact on [the peoples concerned] of planned development activities.'" *See ibid.* ¶ 256.

115. The scope of ESIAs must also encompass an assessment of the potential cultural impact of a proposed development activity on an indigenous people. Accordingly, the assessment must take account of the potential effects of proposed development activity on "'the values, belief systems, customary laws, language(s), customs, economy, relationships with the local environment and particular species, social organization and traditions of the affected community,' as well as the impacts on the 'community's cultural heritage including sites, structures, and remains of archaeological, architectural, historical, religious, spiritual, cultural, ecological or aesthetic value or significance.'"[139]

116. Additionally, the Inter-American Court has indicated that ESIAs must evaluate the cumulative impact of existing projects, stating that:

> one of the factors the environmental and social impact assessment should address is the cumulative impact of existing and proposed projects. This allows for a more accurate assessment on whether the individual and cumulative effects of existing and future activities could jeopardize the survival of the indigenous or tribal people.[140]

117. The acceptable level of impact may differ in each case. However, the Inter-American Court has indicated that "the guiding principle with which to analyze the results of ESIAs should be that the level of impact does not deny the ability of the members of [the indigenous] people to survive as a tribal people."[141]

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139 *Ibid*. ¶ 261 ("the assessment of cultural impact includes an evaluation of 'the likely impacts of a proposed development on the way of life of a particular group or community of people, with full involvement of this group or community of people and possibly undertaken by this group or community of people'" (citing *Akwé:Kon Guidelines*, note 136 *supra*, ¶ 6(a)–(b))); *Garífuna Community of "Triunfo De La Cruz" and its Members v. Honduras*, 7 November 2012, IACHR Report No. 76/12, Case 12.548, ¶ 254 (the term "survival" requires the State to take all appropriate measures to maintain the continuance of the relationship of the indigenous people with their land or their culture).

140 *Saramaka People v. Suriname*, Interpretation of the Judgment, note 115 *supra*, ¶ 41.

141 *Ibid*. ¶ 42.

d) Fourth safeguard: obligation to ensure the right to property under conditions of equality

118. Questions concerning respect for the right of equal protection have arisen particularly in connection with the exploitation of natural resources on traditional indigenous lands. For example, in the case of *Mary and Carrie Dann v. United States*, the IACHR determined that the United States violated Article II of the American Declaration by employing unfair procedures before the Indian Claims Commission to permit gold prospecting activities within the Western Shoshone ancestral lands.[142] The Commission stated that:

> Based upon the foregoing analysis, the Commission hereby concludes that the State has failed to ensure the Danns' right to property under conditions of equality contrary to Articles II, XVIII and XXIII of the American Declaration in connection with their claims to property rights in the Western Shoshone ancestral lands.[143]

119. Similarly, in the case of the *Maya Indigenous Communities of the Toledo District v. Belize*, the IACHR found that:

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142 The IACHR also found a violation of Articles XVIII and XXIII of the American Declaration on grounds that the process before the Indian Claims Commission did not allow the petitioners to be fully informed or involved in the determination of land title.

143 *Mary and Carrie Dann v. United States*, note 97 *supra*, ¶ 172. *See also Kuna of Madungandí and Embrerá of Bayano Indigenous Peoples and Their Members v. Panama*, note 15 *supra*, ¶¶ 301-05 (finding that the allegations of lack of access to justice on account of the petitioners' ethnicity, for purposes of seeking recognition and protection of their lands, could amount to a violation of the right to equal protection); *Raposa Serra Do Sol Indigenous Peoples v. Brazil*, note 27 *supra* (finding petitioners' claim—in connection with severe environmental degradation caused by large-scale development projects and the use of toxic agroindustrial products on the Raposa Serra do Sol indigenous territory—that the State failed to provide any judicial remedy in relation to their claims to property rights to be admissible under, *inter alia*, Article 24 of the Convention). Issues concerning a State's failure to safeguard the right of equal protection have also arisen before the Inter-American Court in the context of activities sanctioned by the State on indigenous lands. *See Case of the Plan de Sanchez Massacre v. Guatemala*, 29 April 2004, Merits Judgment (Series C No. 105) (the Inter-American Court accepted Guatemala's acknowledgment of responsibility for the State-led massacre of 268 members of the Mayan indigenous community and subsequent denial of justice in failing to redress the consequences of the massacre, in violation several provisions of the American Convention, including the right to equal protection).

> The State violated the right to equality before the law, to equal protection of the law, and to nondiscrimination enshrined in Article II of the American Declaration to the detriment of the Maya people, by failing to provide them with the protections necessary to exercise their property rights fully and equally with other members of the Belizean population.[144]

4. Additional obligations on states where environmental harm is threatened or has occurred

a) Measures to protect indigenous peoples' rights to life and physical integrity against actual or potential environmental harm

120. In the *Case of the Yakye Axa Indigenous Community v. Paraguay*, the Court stated that it must take into account the especially vulnerable situation of the indigenous community when identifying obligations relevant to the right to life, and that a right to a healthy environment (Article 11 of the San Salvador Protocol) is relevant to evaluating the State's efforts to fulfill the right to life. The Court explained that it:

> must establish whether the State generated conditions that worsened the difficulties of access to a decent life for the members of the Yakye Axa Community and whether, in that context, it took appropriate positive measures to fulfill that obligation, taking into account the especially vulnerable situation in which they were placed, given their different manner of life (different worldview systems than those of Western culture, including their close relationship with the land) and their life aspirations, both individual and collective, in light of the existing international *corpus juris* regarding the special protection required by the members of the indigenous communities, in view of the provisions set forth in Article 4 of the Convention, in combination with the general duty to respect rights, embodied in Article 1(1) and with the duty of progressive development set forth in Article 26 of that same Convention, and with Articles 10 (Right to Health); 11 (Right to a Healthy Environment); 12 (Right to Food); 13 (Right to

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144 *Maya Indigenous Communities of the Toledo District v. Belize*, note 32 *supra*, ¶ 195. *See also The Kichwa Peoples of the Sarayaku Community and its Members v. Ecuador*, *supra* note 100, ¶ 74 (finding petitioners' claim that the State permitted oil companies to carry on activities on the tribe's ancestral land without consent, thereby damaging the Kichwa way of life, to be admissible as an alleged violation of Article 24).

> Education) and 14 (Right to the Benefits of Culture) of the Additional Protocol to the American Convention, regarding economic, social, and cultural rights, and the pertinent provisions of ILO Convention No. 169.[145]

121. In several cases, precautionary measures have been granted in favor of indigenous and other communities in connection with human rights violations resulting from environmental degradation and pollution, on the basis that the actual or potential toxic effects of extractive activities pose threats that impact the life and physical integrity of the communities.[146]

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145 *Yakye Axa Indigenous Community v. Paraguay*, note 36 *supra*, ¶ 163. *See also Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 176; *La Oroya v. Peru*, IACHR Decision on Precautionary Measures, 31 August 2007 (granting precautionary measures, in favor of residents of the city of La Oroya in Peru suffering from health problems stemming from high levels of air, soil, and water pollution in the community of La Oroya, requiring the State to provide health care); *Indigenous Communities of the Xingu River Basin, Pará v. Brazil*, note 116 *supra* (granting precautionary measures requiring the State to adopt measures to protect the life and physical integrity of the members of the indigenous peoples and to prevent the spread of diseases and epidemics among the indigenous communities being granted the precautionary measures as a consequence of the construction of the Belo Monte hydropower plant).

146 *See, e.g., Oscar González Anchurayco and Community of San Mateo de Huanchor v. Peru*, 2004, IACHR Decision on Precautionary Measures (granting precautionary measures in relation to environmental pollution from open-air mines to indigenous campesino communities, requesting the State to implement a health assistance and care program for the population, particularly for children, identify the persons affected by the pollution and provide the relevant medical care, and begin transferring the deposits in accordance with the best technical conditions as determined by an environmental impact study); *300 Inhabitants of Puerto Nuevo v. Peru*, 27 December 2010, IACHR PM 199/09 (granting precautionary measures to protect the life and personal integrity of 300 inhabitants of Puerto Nuevo Callao in Peru from lead poisoning caused by warehousing and transport of lead, and requesting the State to relocate the population or provide for an alternative lead warehousing site, adopt the necessary measures to provide specialized medical diagnostic services for the beneficiaries as well as appropriate and specialized medical treatment, and adopt the necessary measures to mitigate harm to the environment); *Communities of the Maya People (Sipakepense and Mam) of the Sipacapa and San Miguel Ixtahuacán Municipalities in the Department of San Marcos v. Guatemala*, 20 May 2010, IACHR PM 260/07 (addressing pollution caused by gold and silver mining and requesting the State to suspend the mining activities, adopt the necessary measures to decontaminate the water sources of the communities, ensure their members access to water fit for human consumption, address health problems and to establish a health assistance and care program for those affected by the consequences of the contamination, and adopt measures to guarantee the life and physical integrity of the members of the Maya communities); *Indigenous Communities of the Xingu River Basin, Pará v. Brazil*, note 116 *supra* (stating that pending consultations about ongoing development activities, the State adopt measures to protect the life and physical integrity of the members of the indigenous peoples in voluntary isolation of the Xingu Basin and to prevent the spread of diseases and epidemics

Accordingly, where environmental harm is being inflicted on indigenous territories as a result of development projects or extractive concessions, a duty is imposed on States to suspend the projects for the benefit of the indigenous people's well-being, to repair the environmental damage, and to investigate and sanction those responsible for the harm.[147] States are also under a duty to protect the lands of indigenous peoples pending their restitution to the community.[148]

122. Further, where an indigenous community is deprived of access to its land or resources, the State must provide the community with the basic means for its subsistence. For example, in the *Case of the Yakye Axa Indigenous Community*, the Inter-American Court stated that:

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among the indigenous communities as a consequence of the construction of the Belo Monte hydropower plant).

147 *See, e.g., Access to Justice and Social Inclusion: The Road Towards Strengthening Democracy in Bolivia*, note 27 *supra*, ¶ 6 (indicating that States are under a duty, in relation to projects underway, to "implement participatory mechanisms to determine the environmental damages they may be causing and their effects on the basic subsistence activities of indigenous peoples and peasant communities living in the vicinity of such projects. If their lives or personal integrity are threatened, such projects should be immediately suspended and the appropriate administrative and criminal penalties imposed."); *Democracy and Human Rights in Venezuela*, note 88 *supra*, ¶ 1141, Rec. ¶ 6; *Ngöbe Indigenous Communities et al. v. Panama*, note 30 *supra* (requesting the suspension of the construction of a dam project alleged to impact traditional hunting and fishing activities of indigenous peoples on their traditional lands).

148 *Xákmok Kásek Indigenous Community v. Paraguay*, note 90 *supra*, ¶ 291 ("until the traditional territory has been awarded to the Community, the State must ensure that the territory is not harmed by the actions of the State itself or of private third parties. Thus, the State shall ensure that the area is not deforested, that the sites that are of cultural importance to the Community are not destroyed, that the land is not transferred, and that it is not exploited in such a way as to cause irreparable harm to the area or to its natural resources"); *Tagaeri and Taromenami Indigenous Peoples v. Ecuador*, 10 May 2006, IACHR Decision on Precautionary Measures (granting precautionary measures in favor of the Tagaeri and Taromenami indigenous peoples who inhabit the Ecuadorian Amazon jungle in the area bordering Peru and who had hidden as tribe members were murdered during reprisals linked to illegal tree felling in the Yasuní Park and encroachments onto indigenous lands; *Communities of the Kuna of Madungandí and Emberá of Bayano Peoples v. Panama*, 5 April 2011, IACHR PM 105/11 (granting precautionary measures requiring the State to protect the ancestral territory of the communities of the Kuna of Madungandí and Emberá of Bayano peoples from intrusions by third parties and from the destruction of their forests and crops).

> as long as the Community remains landless, given its special state of vulnerability and the impossibility of resorting to its traditional subsistence mechanisms, the State must supply, immediately and on a regular basis, sufficient drinking water for consumption and personal hygiene of the members of the Community; it must provide regular medical care and appropriate medicine to protect the health of all persons, especially children, the elderly and pregnant women, including medicine and adequate treatment for worming of all members of the Community; it must supply food in quantities, variety and quality that are sufficient for the members of the Community to have the minimum conditions for a decent life; it must provide latrines or any other type of appropriate toilets for effective and healthy management of the biological waste of the Community; and it must supply sufficient bilingual material for appropriate education of the students at the school in the current settlement of the Community.[149]

123. The fact that the State is not responsible for depriving the members of the communities of their lands does not relieve the State from its duties from the moment it has knowledge of the situation.[150]

124. The Commission has also found that alleged actions taken by State authorities in response to an indigenous community protesting against activity causing environmental harm would be contrary to their rights to humane treatment and to personal liberty, as protected by the American Convention.[151]

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149 *Yakye Axa Indigenous Community v. Paraguay*, note 36 *supra*, ¶ 221. *See also Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 176; *La Oroya v. Peru*, note 145 *supra* (granting precautionary measures, in favor of residents of the city of La Oroya in Peru suffering from health problems stemming from high levels of air, soil, and water pollution in the community of La Oroya, requiring the State to provide health care); *Indigenous Communities of the Xingu River Basin, Pará v. Brazil*, note 116 *supra* (granting precautionary measures requiring the State to adopt measures to protect the life and physical integrity of the members of the indigenous peoples and to prevent the spread of diseases and epidemics among them as a consequence of the construction of the Belo Monte hydropower plant).

150 *Case of the Sawhoyamaxa Indigenous Community v. Paraguay*, note 56 *supra*, ¶ 163.

151 *See, e.g.*, *Ngöbe Indigenous Communities v. Panama*, note 30 *supra*, ¶ 46 ("With regard to the allegations that the peaceful demonstrations against the Chan-75 Dam resulted in the repression, persecution and arbitrary arrest of Ngöbe community members, the IACHR considers that they

b) Obligation to provide access to indigenous peoples to effective judicial review

125. States are under a duty to provide effective judicial protection to indigenous peoples from violations of their right to property in their ancestral lands and natural resources.[152] As the IACHR has stated:

> The organs of the Inter-American system have clarified that indigenous and tribal peoples and their members have the right to specific judicial mechanisms which can enable them to contest the consequences that they bear derived from the noxious effects of natural resource exploration and exploitation projects in their territories.[153]

126. Accordingly, States are under a duty to provide indigenous peoples with "accessible, adequate, and effective judicial recourses for challenging environmental harms in a collective manner, in addition to criminal actions, which can enable them to obtain an immediate judicial response in case of suffering irreparable harms as groups of persons, as a consequence of natural resource exploration and exploitation projects in their territories."[154]

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would tend to characterize possible violations of Articles 5 and 7 of the American Convention." The IACHR also indicated that, to the extent such alleged violations had an impact on Ngöbe children, they could characterize alleged violations of Article 19 of the Convention.).

152 *See, e.g.*, *Saramaka People v. Suriname*, note 84 *supra*, ¶¶ 173-5 (finding that the State violated Articles 3 and 25 of the American Convention by refusing to recognize a juridical personality in the tribal group, precluding it from challenging violations to its property rights in court and, therefore, unable to achieve an effective domestic remedy); and *Mary and Carrie Dann v. United States*, note 97 *supra*, ¶ 172 (finding that the State had violated Articles II, XVIII, and XXIII of the American Declaration by employing unfair procedures before the Indian Claims Commission to appropriate ancestral lands and permitting gold prospecting activities on those lands).

153 *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 361.

154 *Ibid*. ¶ 362 (referring to *Democracy and Human Rights in Venezuela*, note 88 *supra*, ¶ 1141, Rec. 7, and *Access to Justice and Social Inclusion: The Road Towards Strengthening Democracy in Bolivia*, note 27 *supra*, ¶ 297, Rec. 6).

127. As the IACHR has stated, "Where the right to life (…) has been infringed upon by environmental contamination, the Government is obliged to respond with appropriate measures of investigation and redress."[155] As part of this obligation, States have a duty to conduct investigations to identify those responsible for the damage, to impose the corresponding sanctions, and to proceed to the appropriate measures of reparation.

128. Several cases have involved failures by States to provide effective means of administrative or judicial recourse for indigenous peoples, in particular, to protect their territories against environmental harm. For example, in the case of *Kuna of Madungandí and Embrerá of Bayano Indigenous Peoples and Their Members v. Paraguay*, which concerned Panama's construction of the Bayano Hydroelectric Dam leading to flooding of the petitioners' ancestral lands, the Commission stated:

> With respect to the alleged ineffectiveness of the State and its legal apparatus in protecting the lands of the petitioners against colonists, the Commission . . . finds that they constitute a potential violation of Articles 8 [which protects the right to a fair trial] and 25 [which sets out the right to judicial protection] of the American Convention.[156]

129. Similarly, the Inter-American Court and the IACHR have found instances of administrative and judicial delays in relation to the processing of a tribe's territorial lands to violate Article 8 of the American Convention.[157]

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155 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chapter VIII.

156 *Kuna of Madungandí and Embrerá of Bayano Indigenous Peoples and Their Members v. Panama*, note 15 *supra*, ¶ 59. *See also Case of the Plan de Sanchez Massacre v. Guatemala*, note 143 *supra*.

157 *Sawhoyamaxa Indigenous Community v. Paraguay*, note 56 *supra*, ¶¶ 74-112 (finding violations of Articles 8, 25, and 3 of the Convention because of the unreasonable length and flaws in the proceedings for the return of their ancestral land, as well as the State's failure to recognize the legal personality of the tribe; the Court also determined that Paraguay violated Articles 21 and 4 of the American Convention in delaying the processing of the tribe's territorial claims, which had the effect of barring the tribe from possessing its land and exposing them to nutritional, medical,

130. In the case of the *Maya Indigenous Communities of the Toledo District v. Belize*, Belize failed to acknowledge the communities' form of communal land use and possession and granted logging and oil concessions on their lands causing environmental harm. The Commission found a violation of, *inter alia*, Article XVIII of the American Declaration, which recognizes the right to a fair trial. In particular, the Commission found that:

> The State violated the right to judicial protection enshrined in Article XVIII of the American Declaration to the detriment of the Maya people, by rendering domestic judicial proceedings brought by them ineffective through unreasonable delay and thereby failing to provide them with effective access to the courts for protection of their fundamental rights.[158]

131. In the *Case of the Sawhoyamaxa Indigenous Community*, the Court highlighted the importance of safeguarding the right to effective judicial protection in claims on indigenous ancestral lands.[159]

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and health vulnerability, thereby threatening their lives and integrity); *Yakye Axa Indigenous Community of the Enxet-Lengua People v. Paraguay*, note 36 *supra*, ¶¶ 88–89, 98; *Xákmok Kásek Indigenous Community v. Paraguay*, note 90 *supra*, ¶¶ 132–38; *Moiwana Community v. Suriname*, 15 June 2005, Preliminary Objections, Merits, Reparations, and Costs Judgment (Ser. C No. 124); *La Oroya v. Peru*, note 25 *supra*, ¶ 75 ("The Commission finds that the alleged delay of over three years in the decision on the constitutional motion, as well as the alleged failure to comply with the final decision in that proceeding, could represent violations of the rights enshrined in Articles 8 and 25 of the Convention … ."); *Raposa Serra Do Sol Indigenous People v. Brazil*, note 27 *supra*, ¶ 47. *See also* IACHR Report, *Access to Justice as a Guarantee of Economic, Social and Cultural Rights: A Review of the Standards Adopted by the Inter-American System of Human Rights*, 2007, ¶ 111.

158 *Maya Indigenous Communities of the Toledo District v. Belize*, *supra* note 32, ¶ 196. *See also Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII (stating that "the American Convention requires that all individuals of the Oriente have access to judicial recourse to lodge claims alleging the violation of their rights under the Constitution and the American Convention, including claims concerning the right to life and to live in an environment free from contamination" and that "individuals must have access to judicial recourse to vindicate the rights to life, physical integrity and to live in a safe environment, all of which are expressly protected in the Constitution").

159 *Sawhoyamaxa Indigenous Community v. Paraguay*, note 56 *supra*, ¶¶ 108-112 (finding a violation of Article 25 of the Convention in light of the unreasonable length and flaws in the proceedings for the return of the community's traditional ancestral lands.) *See also Kuna of Madungandí and Embrerá of Bayano Indigenous Peoples and Their Members v. Paraguay*, note

132. Further, States have a duty to provide indigenous people with access to judicial review of State decisions relating to their lands. The IACHR has noted:

> Official actions that must be subject to judicial review in this context should include, at least, (a) decisions related to the approval of the plan or project, or those related to prior consultation, including the accommodation of the consultation's results and, should it be the case, the application of the state duty to obtain indigenous peoples' consent; (b) decisions regarding the approval of environmental and social impact assessments, or the lack of such assessments, including allegations related to the objective or independent nature, the quality or scope of the assessments, as well as the incorporation of mitigation measures and/or alternatives in relation to the negative impacts identified therein; (c) decisions regarding the establishment of benefit-sharing mechanisms or other forms of compensation, or the lack thereof.[160]

c) Obligation to allow indigenous peoples to participate in determination of compensation for environmental harm on their lands resulting from development activities

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15 *supra*, ¶ 261 (finding a potential violation of Articles 8 and 25 of the American Convention where "the State has not guaranteed an effective and efficient remedy for the recognition, titling, demarcation, and delimitation of the territories claimed by the alleged victims, keeping them from being heard in a process with the proper guarantees."); *Ngöbe Indigenous Communities v. Panama*, note 30 *supra*, ¶ 50 (finding a potential violation of Articles 8 and 25 of the American Convention in connection with alleged ineffective domestic remedies in Panama with respect to construction of a dam on the communities' territory); *Case of the Xákmok Kásek Indigenous Community v. Paraguay*, note 90 *supra* (finding that through delaying the processing of the community's territorial claims, the State prevented the community from asserting control over their property); *Saramaka People v. Suriname*, note 84 *supra* (finding that the State violated Articles 3 and 25 of the Convention by failing to recognize a juridical personality in the indigenous group, precluding it from challenging violations with respect to logging and mining concessions in court and obtaining an effective remedy); *Mayagna (Sumo) Awas Tingni Community v. Nicaragua*, note 91 *supra* (holding that the State violated Articles 21 and 25 of the American Convention by, *inter alia*, failing to provide the community with an adequate domestic remedy concerning these complaints); *Case of the Plan de Sanchez Massacre v. Guatemala*, note 143 *supra* (accepting Guatemala's acknowledgment of responsibility for the State-led massacre of 268 members of the Mayan indigenous community and subsequent denial of justice in failing to redress the consequences of the massacre, in violation, *inter alia*, of Article 25 of the American Convention); *Yakye Axa Indigenous Community of the Enxet-Lengua People v. Paraguay*, note 34 *supra*. *See generally Access to Justice as a Guarantee of Economic, Social and Cultural Rights*, note 157 *supra*, ¶¶ 111–13.

160 *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, *supra* note 80, ¶ 364.

133. In addition to the right to participate in the determination of environmental damage in relation to projects under development, indigenous peoples have the right to participate in the process of determining the compensation for the damages caused by such exploration or exploitation of natural resources projects in their territories, according to their own development priorities.[161] Accordingly, for projects for the exploration or exploitation of natural resources on indigenous territories that are underway, States must implement participatory mechanisms to determine the environmental damage being caused and the effects of that damage on the basic subsistence activities of the indigenous peoples living in the vicinity of such projects.[162]

134. The amount and form of compensation for environmental damage to be paid by the State must be calculated pursuant to international standards, and must be adequate to compensate pecuniary and non-pecuniary damages caused by the human rights violations.[163] For example, in the *Case of the Saramaka People*, in determining the amount of compensation for material damages, the Inter-American Court took account of the removal of a considerable quantity of valuable timber from Saramaka territory without any consultation or compensation, as well as the damage caused by the logging concessions awarded by the State to the territory traditionally occupied and used by the Saramakas.[164] The Court also considered as immaterial damage "the spiritual connection the Saramaka people have with their territory,"[165] as well as

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161 *Access to Justice and Social Inclusion: The Road Towards Strengthening Democracy in Bolivia*, *supra* note 27, ¶ 247, Rec. 5.

162 *Ibid*. ¶ 297, Rec. 6.

163 *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 387.

164 *Saramaka People v. Suriname*, note 84 *supra*, ¶ 199.

165 *Ibid*. ¶ 200.

"the suffering and distress that the members of the Saramaka people have endured as a result of the long and ongoing struggle for the legal recognition of their right to the territory they have traditionally used and occupied for centuries …, as well as their frustration with a domestic legal system that does not protect them against violations of said right …, all of which constitutes a denigration of their basic cultural and spiritual values."[166] The Court found that "the immaterial damage caused to the Saramaka people by these alterations to the very fabric of their society entitles them to a just compensation."[167]

IV. CROSS-CUTTING ISSUES

A. OBLIGATIONS RELATING TO NON-STATE ACTORS

135. The activities of non-State actors frequently pose a risk to the enjoyment of a healthy environment and have been at issue in several cases and situations addressed by the IACHR and the Inter-American Court. Concerns relating to environmental harm commonly arise in connection with concessions granted by States to private actors for the exploitation of natural resources.[168] The IACHR and the Inter-American Court have articulated a number of duties arising in relation to these activities of non-state actors.

136. The first such duty is the duty of States to take measures to protect against environmental harm by private actors that could threaten the enjoyment of human rights.[169]

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166 *Ibid*.

167 *Ibid*.

168 *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 203 ("The State duty to apply the environmental protection provisions in force gains special importance vis-a-vis non-State actors whose conduct that is harmful for natural resources. State authorities have clear international obligations to enforce their own standards and regulations, non-compliance with which may incur their international responsibility.").

169 *Ibid*.

Economic development in particular must take place subject to the establishment of mechanisms and procedures that ensure respect for the rights of affected individuals.[170] In the context of oil exploitation activities having serious effects on the lives and health of residents in the Oriente region of Ecuador, the IACHR urged the State to "take steps to prevent harm to affected individuals through the conduct of its licensees and private actors" and to "ensure that measures are in place to prevent and protect against the occurrence of environmental contamination which threatens the lives of the inhabitants of development sectors."[171] Similarly, in the case concerning the *Maya Indigenous Communities of the Toledo District*, the IACHR stated that States must establish safeguards and mechanisms to ensure that concessions for the exploitation of natural resources do not cause environmental damages that affect the lands or the indigenous communities.[172] Although there are additional special duties specific to indigenous peoples discussed in Section III.C, the general duty to protect against harm from non-State actors is applicable to all persons.

137. The second duty imposed on States is "to enforce the national and international environmental protection standards that they have enacted or accepted."[173] Although this obligation is applicable to all persons, it "is particularly relevant in the case of non-state actors

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170 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII.

171 *Ibid*.

172 *Maya Indigenous Communities of the Toledo District v. Belize*, note 32 *supra*, ¶ 147 ("[T]the logging concessions granted by the State in respect of lands in the Toledo District have caused environmental damage, and that this damage impacted negatively upon some lands wholly or partly within the limits of the territory in which the Maya people have a communal property right. The Commission also considers that this damage resulted in part from the fact that the State failed to put into place adequate safeguards and mechanisms, to supervise, monitor and ensure that it had sufficient staff to oversee that the execution of the logging concessions would not cause further environmental damage to Maya lands and communities.").

173 *Second Report on the Situation of Human Rights Defenders in The Americas*, note 15 *supra*, ¶ 314.

whose conduct is harmful to natural resources and whose non-compliance can engage the State's international responsibility."[174] The Commission has confirmed in its *Second Report on the Situation of Human Rights Defenders in the Americas* that:

> To protect the environment, in practice States have resorted to a variety of internal means, including the establishment of quality, production or emissions standards; licensing or regulation of dangerous activities; the provision of economic incentives or disincentives; penalties for particularly harmful activities through criminal law; or the creation of private liability regimes to discourage and compensate for environmental damage. As the IACHR has previously observed, whatever internal course of action is selected, *effective enforcement of the environmental protection measures in relation to private parties, particularly extractive companies and industries, is essential* to avoid the State's international responsibility for violating the human rights of the communities affected by activities detrimental to the environment.[175]

138. States are also under a duty to conduct necessary investigations to identify those responsible for environmental harm and secure effective and accessible reparation mechanisms vis-à-vis environmental damage caused by non-state actors.[176] As the Commission has stated with respect to pollution caused by private actors' oil exploration activities in Ecuador, "Where

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174 *Ibid*. ¶ 314. *See also Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 203.

175 *Second Report on the Situation of Human Rights Defenders in the Americas*, note 15 *supra*, ¶ 315 (citing Dinah Shelton, *Environmental Rights and Brazil's Obligations in the Inter-American Human Rights System*, note 79 *supra*, p. 736; *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶¶ 191, 203) (emphasis added).

176 *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 385 ("The broad formulation of these provisions suggests that the duty of reparation is applicable not only to the negative impact of activities carried out by State authorities, *but also by commercial companies or other private actors*. In this latter type of cases, states are in the obligation of securing the existence of effective and accessible reparation mechanisms.") (emphasis added) (referring to the UN Declaration on the Rights of Indigenous Peoples, arts. 20.2, 29.2–3, 32.2., and 40)).

the right to life (…) has been infringed upon by environmental contamination, the Government is obliged to respond with appropriate measures of investigation and redress."[177]

139. With respect to the duty of reparation, the IACHR has confirmed that, in cases where there has been environmental damage, it is the responsibility of the State to implement the measures necessary to remedy the situation. The IACHR, in its report on the contamination caused by private actors' oil exploration activities in Ecuador, stated that:

> Given that it is the obligation of the State to respect and ensure the rights of the inhabitants of the Oriente, and the responsibility of the Government to implement the measures necessary to remedy the current situation and prevent future oil and oil-related contamination which would threaten the lives and health of these people, and having noted the concern expressed by some government officials over the seriousness and scope of this problem, the Commission recommends and encourages the State to adopt the measures necessary to translate this concern into preventive and remedial action.[178]

B. REFERENCES TO STANDARDS OUTSIDE THE INTER-AMERICAN SYSTEM TO INFORM HUMAN RIGHTS OBLIGATIONS RELATING TO THE ENVIRONMENT

140. In articulating the link between a healthy environment and the enjoyment of human rights, the IACHR has sometimes referred to sources and standards developed outside the Inter-American human rights system. For example, the Commission referred to the 1994 Declaration of Principles of the First Summit of the Americas (the "Declaration of Miami") in its

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177 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII.

178 *Ibid*. *See also Access to Justice and Social Inclusion: The Road Towards Strengthening Democracy in Bolivia*, note 27 *supra*, Chap. IV, ¶ 253 ("the right to life enshrined in the American Convention includes the right to a dignified existence and . . . when the State becomes aware of the serious situation facing persons who live in areas close to rivers and creeks polluted by natural resource projects, it is the State's duty to adopt all the measures at its disposal to mitigate the damage caused by the concessions it has granted, and to impose sanctions for the failure to comply with applicable environmental or criminal legislation").

report on the human rights situation in Ecuador in light of environmental damage caused by oil exploitation activities.[179] The Declaration states that:

> Social progress and economic prosperity can be sustained only if our people live in a healthy environment and our ecosystems and natural resources are managed carefully and responsibly.[180]

141. The IACHR has also relied on the World Charter for Nature to emphasize the connection between the preservation of a healthy environment and access to sources on which livelihoods depend.[181]

142. The IACHR and the Inter-American Court have referred to external substantive benchmarks in establishing duties for States in relation to the safeguarding of human rights against environmental harm. In the *Case of the Saramaka People*, the Inter-American Court established three mandatory conditions that apply when States consider granting extractive concessions or developing natural resources on indigenous peoples' territories, and confirmed that "[t]hese requirements are consistent with the observations of the Human Rights Committee, the text of several international instruments, and the practice in several States Parties to the Convention."[182] The instruments cited by the Inter-American Court include: (a) Article 15(2) of

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179 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII. *See also Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, *supra* note 80, ¶ 159 (referring to the Committee on Economic, Social and Cultural Rights' General Comments on the rights to adequate food and water).

180 1994 Declaration of Principles of the First Summit of the Americas (the "Declaration of Miami"), 11 December 1994.

181 *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII ("As stated in the preamble of the World Charter for Nature, General Assembly Resolution 37/7, 28 October 1982, U.N. Doc A/RES/37/7: "Mankind is a part of nature and life depends on the uninterrupted functioning of natural systems which ensure the supply of energy and nutrients.").

182 *Saramaka People v. Suriname*, note 84 *supra*, ¶¶ 130–31. *See also Yakye Axa Indigenous Community v. Paraguay*, note 35 *supra*, ¶ 166 (citing Committee on Economic, Social and Cultural Rights, *General Comment No. 14: The right to the highest attainable standard of health*

ILO Convention No. 169;[183] (b) the World Bank's *Revised Operational Policy and Bank Procedure on Indigenous Peoples*;[184] (c) the Human Rights Committee's General Comment No. 23: The rights of minorities (Article 27);[185] and (d) the Committee on the Elimination of Racial Discrimination's General Recommendation No. 23, Indigenous Peoples.[186]

143. Similarly, in the *Case of Kawas Fernández v. Honduras*, the Inter-American Court, in stating that "there is an undeniable link between the protection of the environment and the enjoyment of other human rights," referred to the case law of the European Court of Human Rights and to discussions by the United Nations.[187]

(Article 12 of the International Covenant on Economic, Social and Cultural Rights), 11 August 2000, U.N. Doc. E/C.12/2000/4).

183 ILO Convention No. 169, *Indigenous and Tribal Peoples Convention*, 27 June 1989, art. 15(2) ("In cases in which the State retains the ownership of mineral or sub-surface resources or rights to other resources pertaining to lands, governments shall establish or maintain procedures through which they shall consult these peoples, with a view to ascertaining whether and to what degree their interests would be prejudiced, before undertaking or permitting any programmes for the exploration or exploitation of such resources pertaining to their lands.").

184 World Bank Operational Manual, OP4.10–Indigenous Peoples, July 2005.

185 Human Rights Committee, *General Comment No. 23: The rights of minorities (Art. 27)*, 8 April 1994, U.N. Doc. CCPR/C/21/Rev.1/Add.5, ¶ 7 ("With regard to the exercise of the cultural rights protected under article 27, the Committee observes that culture manifests itself in many forms, including a particular way of life associated with the use of land resources, especially in the case of indigenous peoples. That right may include such traditional activities as fishing or hunting and the right to live in reserves protected by law. The enjoyment of those rights may require positive legal measures of protection and measures to ensure the effective participation of members of minority communities in decisions which affect them.").

186 Committee on the Elimination of Racial Discrimination, *General Recommendation No. 23: Indigenous Peoples,* 18 August 1997, U.N. Doc. A/52/18, annex V at 122, ¶ 4(d) ("The Committee calls in particular upon States parties to: … (d) Ensure that members of indigenous peoples have equal rights in respect of effective participation in public life an that no decisions directly relating to their rights and interests are taken without their informed consent.").

187 *Kawas-Fernández v. Honduras*, note 16 *supra*, ¶ 148 ("Furthermore, in accordance with the case law of this Court and the European Court of Human Rights, there is an undeniable link between the protection of the environment and the enjoyment of other human rights. The ways in which the effective enjoyment of human rights in the continent has been the subject of discussion by the General Assembly of the Organization of American States and the United Nations.").

144. The Inter-American Court has also relied on Article 32 of the United Nations Declaration on the Rights of Indigenous Peoples, which states the following:

> 1. Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.
>
> 2. States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connect with the development, utilization or exploitation of mineral, water or other resources.
>
> 3. States shall provide effective mechanisms for just and fair redress for any such activities, and appropriate measures shall be taken to mitigate adverse environmental, economic, social, cultural or spiritual impact.[188]

145. The IACHR has also referred to substantive benchmarks established outside the Inter-American human rights system when considering the duties imposed on States in relation to activities on ancestral land that encroach upon the human rights of indigenous peoples. For example, in the case of *Mary and Carrie Dann v. United States*, the Commission confirmed that "the provisions of the draft Indigenous Declaration are properly considered in interpreting and applying the provisions of the American Declaration in the context of indigenous peoples to the extent that the basic principles reflected in provisions of the draft Declaration, including aspects of Article XVIII, reflect general international legal principles developing out of and applicable inside and outside of the inter-American system."[189]

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188 United Nations Declaration on the Rights of Indigenous Peoples, 13 September 2007, General Assembly Resolution 61/295, art. 32.

189 *Mary and Carrie Dann v. United States*, note 97 *supra*, ¶ 168 (referencing General Comments and decisions of the Human Rights Committee and the Committee on the Elimination of Racial Discrimination, as well as ILO Convention No. 169).

146. The IACHR has referred to substantive benchmarks established outside of the Inter-American human rights system when confirming that States have a duty to take measures to remedy and compensate for environmental harm that compromises the enjoyment of human rights. For example, in its report on *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, the IACHR states:

> Indigenous and tribal peoples have a right to the determination and enforcement of indemnities for the environmental damages caused by natural resource exploration and exploitation projects or development or investment plans in their territories, and for the undermining of their basic subsistence activities; as provided for in ILO Convention No. 169, indigenous and tribal peoples have the right to receive an indemnity for any harm they may have sustained as a result of natural resource utilization activities.[190]

147. The same report also refers to Article 40 of the UN Declaration on the Rights of Indigenous Peoples, stating that this "establishes, in general terms, indigenous peoples' right to 'remedies for all infringements of their individual and collective rights.'"[191]

148. The IACHR refers, in relation to the calculation of compensation, to the requirements established under the World Bank's *Revised Operational Policy and Bank Procedure on Indigenous Peoples*, stating that:

> The calculation of compensatory indemnity for limitations of the right to indigenous communal property must follow criteria of non-discrimination in relation to other private owners. This is expressly recognized by the World Bank policy on indigenous peoples, by which they must receive, "in a culturally appropriate manner, benefits, compensation, and rights to due process at least equivalent to that to which any landowner with full legal title to the

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190 *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 383. *See also Mary and Carrie Dann v. United States*, note 97 *supra*, ¶ 130 (the general international legal principles applicable in the context of indigenous human rights include "the right to fair compensation in the event that … property and user rights are irrevocably lost").

191 *Indigenous and Tribal Peoples' Rights over Their Ancestral Lands and Natural Resources*, note 80 *supra*, ¶ 385.

> land would be entitled in the case of commercial development on their land."[192]

V. CONCLUSIONS

149. It is well-established within the Inter-American system that there is an intrinsic link between the enjoyment of human rights and environmental protection. Article 11 of the San Salvador Protocol expressly recognizes a right to a healthy environment. Further, the IACHR and the Inter-American Court have repeatedly confirmed that the enjoyment of human rights protected under the American Declaration and the American Convention, including the rights to life, physical integrity, property and health, depends upon the existence of a healthy environment.

150. Most claims in the Inter-American system in respect of environmental damage address extractive and development activities on the lands of indigenous communities. The IACHR has confirmed in several cases relating to the granting of concessions for mining, logging and hydrocarbon exploitation on the territories of indigenous peoples that economic development must be sustainable and must be accompanied by adequate and effective measures to guarantee that it does not compromise the fundamental rights of indigenous peoples who may be negatively affected. The IACHR has recognized:

> the importance of economic development for the prosperity of the peoples of the Hemisphere. As the Inter-American Democratic Charter proclaims: 'the promotion and observance of economic, social, and cultural rights are inherently linked to integral development, equitable economic growth, and to the consolidation of democracy in the status of the Hemisphere.' At the same time, development activities must be accompanied by appropriate and effective measures to guarantee that they are not conducted at the expense of the fundamental rights of persons who may be particularly and negatively affected, including indigenous and

192 *Ibid*. ¶ 391.

> tribal communities, or at the expense of the environment on which they depend for their physical, cultural, and spiritual wellbeing.[193]

151. The Inter-American Court has also acknowledged that extractive activities can compromise the natural environment upon which indigenous peoples' livelihoods and existence depend.[194]

152. The findings of the IACHR and the Inter-American Court of violations of human rights stemming from the exploitation of natural resources—including "adverse effects on health and production systems; changes in domestic migration patterns; a decline in the quantity and quality of water sources; impoverishment of soils for farming; a reduction in fishing, animal life, plant life, and biodiversity in general, and disruption of the balance that forms the basis of ethnic and cultural reproduction"—reveal that problems still arise with respect to the protection of indigenous peoples' rights in the context of such concessions.[195]

153. With respect to indigenous peoples' rights, significant progress has been made towards articulating procedural duties with which States must comply before granting development concessions (obligations to consult and obtain consent), as well as during the course of a concession should environmental damage occur (obligations to provide access to effective justice, investigate and ensure reparations). However, the success of these protections in achieving their intended goal—to protect the human rights of indigenous communities that

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193 IACHR *Application to the Inter-American Court of Human Rights in the case of 12 Saramaka Clans (Case 12.338) v. Suriname*, 23 June 2006, ¶ 153 (citing the Inter-American Democratic Charter, adopted by the OAS General Assembly at its special session held in Lima, Peru on September 11, 2001, art. 13). *See also Maya Indigenous Community of the Toledo District v. Belize*, note 31 *supra*, ¶ 150; *Report on the Situation of Human Rights in Ecuador*, note 26 *supra*, Chap. VIII.

194 *See, e.g., Mayagna (Sumo) Awas Tingni Community v. Nicaragua*, note 91 *supra*, ¶¶ 150-55.

195 *See, e.g., IACHR Follow-up Report—Access to Justice and Social Inclusion: the Road Towards Strengthening Democracy in Bolivia*, 7 August 2009, OEA/Ser/L/V/II.135, Doc. 40, ¶ 158.

suffer the effects of environmental contamination—depends upon their proper implementation by States. This report does not examine the States' record of implementation of the measures that are necessary to comply with their procedural duties.

154. The issue of climate change—predicted to cause an increased number of natural catastrophes, both sudden and incremental, with effects extending beyond a single State's borders—and its consequences for the enjoyment of human rights, has not yet been considered in detail by the IACHR or the Inter-American Court.[196] The IACHR has urged States to give priority to human rights in climate change negotiations and in the formation and implementation of remedial and adaptation measures.[197]

196 *See Annual Report of the IACHR 2011*, note 107 *supra*, ¶ 16 (stating that, during its 141st Regular Session, it had "received alarming information on the profound impact that climate change caused by human activities has had on the enjoyment of human rights").

197 *Ibid*.

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"Climate Change and Human Rights", *United Nations Environment Programme,* December 2015, pages 19-20



Climate Change and Human Rights

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December 2015

Design and Layout: Jennifer Odallo, UNON Printshop

Printing: UNON Publishing Services Section, Nairobi – ISO 14001:2004-certified

D1 No.: 15-03762/100 Copies

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COP has yet to establish any clear mandate for countries, climate finance mechanisms, or other entities to ensure access to a grievance mechanism for those who are harmed by the impacts of or responses to climate change.

(b) Substantive Obligations

Both the ICESCR and ICCPR contain substantive rights, such as the rights to life, health, and an adequate standard of living, accompanied by a combination of: (i) negative obligations for states to refrain from taking action that would interfere with rights, (i.e., a duty to respect rights); and (ii) positive obligations for states to protect and fulfill rights.[112] As noted by the UN General Assembly:

> "Each state has a prime responsibility and duty to protect, promote and implement all human rights and fundamental freedoms, inter alia, by adopting such steps as may be necessary to create all conditions necessary in the social, economic, political, and other fields, as well as the legal guarantees required to ensure that all persons under its jurisdiction, individually and in association with others, are able to enjoy all those rights and freedoms in practice."[113]

Based on these obligations, the CESCR, regional courts, and UN special rapporteurs have concluded that states have a general duty to "adopt legal and institutional frameworks that protect against, and respond to, environmental harm that may or does interfere with the enjoyment of human rights."[114] The framework must ensure that the state will respect human rights in all of its activities and decisions, and include protections to prevent third parties from creating environmental harms that interfere with the exercise of human rights.[115] In addition, the European Court of Human Rights (ECtHR) has held that states must also take reasonable measures to protect citizens against the reasonably foreseeable effects of natural disasters.[116]

The adverse impacts of climate change clearly qualify as "environmental harms" that can interfere with the exercise of human rights. Thus, states must enact legal and institutional frameworks to protect against and respond to those impacts. More specifically, there are at least five types of obligations that may arise in this context: (1) adaptation obligations, requiring states to enact frameworks for protecting people against the effects of climate change; (2) domestic mitigation obligations, requiring states to regulate the sources of GHG emissions; (3) international cooperation obligations, requiring states to participate in international negotiations for an effective global climate agreement; (4) transboundary mitigation obligations, requiring states to mitigate the effect of their activities on the human rights of persons outside of their jurisdiction; and (5) an obligation to ensure that mitigation and adaptation activities do not themselves contribute to human rights violations.

There are at least three overarching principles which apply to all of these obligations. First, states are "obliged to take measures towards the full realization of economic, social, and cultural rights *to the maximum extent of their available resources*."[117] This means that states "must take deliberate, concrete and targeted measures, making the most efficient use of available resources, to move as expeditiously and effectively as possible towards the full realization of rights."[118]

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112 Regarding implementation, the ICESCR specifies that each party shall "take steps, individually and through international assistance and cooperation… to the maximum of its available resources, with a view to progressively achieving the full realization of" the rights contained therein. ICESCR Art. 2. The ICCPR contains slightly different language, requiring each party to "respect and to ensure to all individuals within its territory and subject to its jurisdiction" the rights recognized therein, and to "take the necessary steps…to adopt such laws or other measures as may be necessary to give effect" to those rights. ICCPR Art. 2, pp. (1)-(2). Based on this language, the treaty bodies have concluded that both agreements contain a combination of positive and negative obligations. HR Committee General Comment No. 31, pp. 5-7, UN Doc. CCPR/C/21/Rev.1/Add.13 (2004); HRC General Comment No. 6, pp. 1, 5, UN Doc. HRI/GEN/1/Rev.1 (1994); CESCR General Comment No. 3, pp. 1-2 UN Doc. E/1991/23 (Dec. 14, 1990).

113 G.A. Res. 53/144, Art. 2, p. 1, UN Doc. A/RES/53/144 (March 8, 1999).

114 Mapping Report, *supra* note 64, at pp. 47 (citing statements from these entities to support this proposition). *See, e.g.,* CESCR, General Comment No. 14, pp. 4, 15, 36, UN Doc. E/C.12/2000/4 (Aug. 11, 2000) (to achieve full realization of right to health, states must adopt measures to protect citizens from environmental hazards, and implement policies "aimed at reducing and eliminating pollution of air, water and soil"); Fadeyeva v. Russia, 45 Eur. Ct. H.R. 10 (2005); Öneryildiz v. Turkey, 2004-XII European Court of Human Rights 1, ¶p. 89 ("The positive obligation to take all appropriate steps to safeguard life for the purposes of Article 2… entails above all a primary duty on the State to put in place a legislative and administrative framework designed to provide effective deterrence against threats to the right to life."); López Ostra v. Spain, 20 Eur. Ct. H.R. 277 (1994); Tşar v. Romania, App. No. 67021/01, Eur. Ct. H.R. (Jan. 27, 2009); Ogoniland Case (2011), *supra* note 95; Hatton and Others v. United Kingdom, 37 Eur. Ct. H.R. 28, ¶ 98 (2003). *See also* Gabcíkovo-Nagymaros (Hungary v. Slovakia), 1997 I.C.J. 7 (Sept. 25) (separate opinion of Judge Weeramantry) (describing the protection of the environment as a "sine qua non for numerous human rights such as the right to health and the right to life itself").

115 Mapping Report, *supra* note 64, at pp. 47-6.

116 *See, e.g.,* Budayeva and Others v. Russia, App. Nos. 15339/02, 21155/02, 20058/02, 11673/02 and 1543/02, Eur. Ct. H.R. (March 20, 2008).

117 OHCHR Report (2009), *supra* note 71, at p. 75 (citing CESCR General Comment No. 3, pp. 1-2).

118 *Id.* at p. 76 (citing CESCR General comments No. 3 and No. 14).

Second, although international human rights law generally requires the "progressive realization" of economic, social, and cultural rights, there are some obligations which require immediate implementation. For example, states must guarantee non-discrimination in access to economic, social and cultural rights, irrespective of resource constraints.[119] States also have an immediate obligation to ensure, at the very least, "minimum essential levels" of each right that is enshrined in the ICESCR.[120] In addition, states have an immediate obligation to refrain from undertaking actions that cause a violation of *any* human rights.

Third, states have an obligation to protect *all rights* against third party abuses. As interpreted by the HR Committee, this means that states must "take appropriate measures or to exercise due diligence to prevent, punish, investigate or redress" any human rights violations caused by third parties.[121]

(i) Adaptation Obligations: Protecting Human Rights From Climate-Related Harms

Article 6 of the ICCPR recognizes that "[e]very human being has the inherent right to life" and that no person "shall be arbitrarily deprived of life." The HR Committee has noted that the right to life "should not be interpreted narrowly" and that "the protection of this right requires that States adopt positive measures" to protect life.[122] The ICESCR contains a number of additional rights—such as the rights to health and an adequate standard of living—which also require positive action from the state for their implementation.[123]

As discussed in Part 1, the effects of climate change will threaten the lives, health, well-being, and livelihoods of hundreds of millions if not billions of people in the coming decades. States have an obligation to enact legal and institutional frameworks to protect human rights against these effects. This is true regardless of whether the state is responsible for those effects because, as noted above, the ICCPR and ICESCR both include obligations to protect human rights from harms caused by third parties. Presumably, this would encompass a more pressing obligation to protect citizens from imminent, life-threatening harms (such as more severe storms and flooding), as well as an ongoing obligation to implement adaptation measures to alleviate the projected impacts of climate change on people and their livelihoods. [124]

The ECtHR has issued several decisions which, although not binding under the ICCPR or ICESCR, do provide insight on the nature of a state's positive obligation to protect the human right to life in this context.[125] For example, in *Budayeva and Others v. Russia,* the ECtHR determined that Russian authorities had violated the right to life when: (i) the authorities knew that there was a risk of a mud-slide, (ii) they did not implement land planning and emergency relief policies, (iii) they did not adequately inform the public about the risk; and (iv) eight citizens died as a result of the mud-slide.[126] The Lahore High Court in Pakistan also recently issued a decision in which it held that the national government had violated the fundamental rights of its citizens, including the right to life, by failing to implement adaptation measures recommended in the 2012 National Climate Policy and Framework.[127]

The UNFCCC does not recognize a right to adaptation, but it does call upon all parties to "[c]ooperate in preparing for adaptation to the impacts of climate change; develop and elaborate appropriate and integrated plans for coastal zone management, water resources and agriculture, and for the protection and rehabilitation of areas,

119 CESCR General Comment No. 3, pp. 1-2, UN Doc. E/1991/23 (Dec. 14, 1990).
120 OHCHR Report (2009), *supra* note 71, at p. 76 (citing CESCR general comment No. 3).
121 HRC General Comment No. 31, p.8, UN Doc. CCPR/C/21/Rev.1/Add.13 (2004). *See also* CESCR, General Comment No. 12, p. 15, UN Doc. E/C.12/1999/5 (May 12, 1999); Knox (2014), *supra* note 76, at 7; Andrew Clapham, *Human Rights Obligations of Non-State Actors* (2006); John H. Knox, *Horizontal Human Rights Law* (2008); Velásquez Rodríguez v. Honduras, Inter-Am. Ct. H.R. (Ser. C) No. 4 (July 29, 1988); Z and Others v. United Kingdom, 34 Eur. Ct. H.R. 3 (2002).
122 HR Committee General Comment No. 6, ¶¶ 1, 5, UN Doc. HRI/GEN/1/Rev.1 (1994).
123 ICESCR Arts. 11, 12.
124 OHCHR acknowledges that, "in some cases, states may have an obligation to protect individuals against foreseeable threats to human rights related to climate change, such as an increased risk of flooding or storms in certain areas." OHCHR (2009), *supra* note 71, at p. 74. In another statement on disaster risk reduction and human rights obligations, OHCHR has also asserted that a failure "to take reasonable preventive action to reduce exposure and vulnerability and to enhance resilience, as well as to provide effective mitigation [to disasters]" is a "human rights issue." OHCHR, Organization Profile: Policies and Programmes in DRR, http://www.preventionweb.net/organizations/1370/view (last visited Oct. 6, 2015). In addition, HRC Resolutions 10/4 and 18/22 more assert that: "in no case may a people be deprived of its own means of subsistence" as a result of climate change impacts."
125 Öneryildiz v. Turkey, *supra* note 95; Budayeva and Others v. Russia, *supra* note 120; Tşar v. Romania, *supra* note 118.
126 Budayeva and Others v. Russia, *supra* note 120.
127 Ashgar Leghari v. Federation of Pakistan, Lahore High Court Green Bench (W.P. No. 25501/2015) (Sept. 15, 2015). Similarly, a district court in The Hague recently referred to the ECtHR's jurisprudence on the right to life and corresponding obligation of governments to protect citizens from environmental harm in order to determine the "standard of care" that the Dutch national government must exercise to protect its citizens from climate-related harms. District Court of the Hague, *Judgment: Urgenda Foundation v. Kingdom of the Netherlands Regarding the failure of the Dutch State to take sufficient actions to prevent dangerous climate change,* p. 4.74 (Urgenda Foundation 2015).

Annex 480

"Understanding Human Rights and Climate Change", Submission of the Office of the High Commissioner for Human Rights to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, 2015

Understanding Human Rights and Climate Change[1]

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[1] Submission of the Office of the High Commissioner for Human Rights to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change

Key Messages on Human Rights and Climate Change

Climate change impacts, directly and indirectly, an array of internationally guaranteed human rights. States (duty-bearers) have an affirmative obligation to take effective measures to prevent and redress these climate impacts, and therefore, to mitigate climate change, and to ensure that all human beings (rights-holders) have the necessary capacity to adapt to the climate crisis.

Climate justice requires that climate action is consistent with existing human rights agreements, obligations, standards and principles. Those who have contributed the least to climate change unjustly and disproportionately suffer its harms. They must be meaningful participants in and primary beneficiaries of climate action, and they must have access to effective remedies.

OHCHR's Key Messages on Human Rights and Climate Change highlight the essential obligations and responsibilities of States and other duty-bearers (including businesses) and their implications for climate change-related agreements, policies, and actions. In order to foster policy coherence and help ensure that climate change mitigation and adaptation efforts are adequate, sufficiently ambitious, non-discriminatory and otherwise compliant with human rights obligations, the following considerations should be reflected in all climate action, including agreements to be negotiated at the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change.

1. **To mitigate climate change and to prevent its negative human rights impacts:** States have an obligation to respect, protect, fulfil and promote all human rights for all persons without discrimination. Failure to take affirmative measures to prevent human rights harms caused by climate change, including foreseeable long-term harms, breaches this obligation. The Fifth Report of the Intergovernmental Panel on Climate Change confirms that climate change is caused by anthropogenic emissions of greenhouse gases. Among other impacts, climate change negatively affects people's rights to health, housing, water and food. These negative impacts will increase exponentially according to the degree of climate change that ultimately takes place and will disproportionately affect individuals, groups and peoples in vulnerable situations including, women, children, older persons, indigenous peoples, minorities, migrants, rural workers, persons with disabilities and the poor. Therefore, States must act to limit anthropogenic emissions of greenhouse gases (e.g. mitigate climate change), including through regulatory measures, in order to prevent to the greatest extent possible the current and future negative human rights impacts of climate change.

2. **To ensure that all persons have the necessary capacity to adapt to climate change:** States must ensure that appropriate adaptation measures are taken to protect and fulfil the rights of all persons, particularly those most endangered by the negative impacts of climate change such as those living in vulnerable areas (e.g. small islands, riparian and low-lying coastal zones, arid regions, and the poles). States must build adaptive capacities in vulnerable communities, including by recognizing the manner in which factors such as discrimination, and disparities in education and health affect climate vulnerability, and by devoting adequate resources to the realization of the economic, social and cultural rights of all persons, particularly those facing the greatest risks.

3. **To ensure accountability and effective remedy for human rights harms caused by climate change:** The Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and other human rights instruments require States to guarantee effective remedies for human rights violations. Climate change and its impacts, including sea-level rise, extreme weather events, and droughts have already inflicted human rights harms on millions of people. For States and communities on the frontline, survival itself is at stake. Those affected, now and in the future, must have access to meaningful remedies including judicial and other redress mechanisms. The obligations of States in the context of climate change and other environmental harms extend to all rights-holders and to harm that occurs both inside and beyond boundaries. States should be accountable to rights-holders for their contributions to climate change including for failure to adequately regulate the emissions of businesses under their jurisdiction regardless of where such emissions or their harms actually occur.

4. **To mobilize maximum available resources for sustainable, human rights-based development**: Under core human rights treaties, States acting individually and collectively are obligated to mobilize and allocate the maximum available resources for the progressive realization of economic, social and cultural rights, as well as for the advancement of civil and political rights and the right to development. The failure to adopt reasonable measures to mobilize available resources to prevent foreseeable human rights harms caused by climate change breaches this obligation. The mobilization of resources to address climate change should complement and not compromise other efforts of governments to pursue the full realization of all human rights for all including the right to development. Innovative measures such as carbon taxes, with appropriate safeguards to minimize negative impacts on the poor, can be designed to internalize environmental externalities and mobilize additional resources to finance mitigation and adaptation efforts that benefit the poorest and most marginalised.

5. **International cooperation:** The UN Charter, the International Covenant on Economic, Social and Cultural Rights, and other human rights instruments impose upon States the duty to cooperate to ensure the realization of all human rights. Climate change is a human rights threat with causes and consequences that cross borders; thus, it requires a global response, underpinned by international solidarity. States should share resources, knowledge and technology in order to address climate change. International assistance for climate change mitigation and adaptation should be additional to existing ODA commitments. Pursuant to relevant human rights principles, climate assistance should be adequate, effective and transparent, it should be administered through participatory, accountable and non-discriminatory processes, and it should be targeted toward persons, groups, and peoples most in need. States should engage in cooperative efforts to respond to climate-related displacement and migration and to address climate-related conflicts and security risks.

6. **To ensure equity in climate action:** The Rio Declaration on Environment and Development, the Vienna Declaration and Programme of Action, and 'The Future We Want' all call for the right to development, which is articulated in the UN Declaration on the Right to Development, to be fulfilled so as to meet equitably the developmental and environmental needs of present and future generations. The UN Framework Convention on Climate Change calls for States to protect future generations and to take action on climate change "on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities". While climate change affects people everywhere, those who have contributed the least to greenhouse gas emissions (i.e. the poor, children, and future generations) are those most affected. Equity in climate action requires that efforts to mitigate

and adapt to the impacts of climate change should benefit people in developing countries, indigenous peoples, people in vulnerable situations, and future generations.

7. **To guarantee that everyone enjoys the benefits of science and its applications:** The International Covenant on Economic, Social and Cultural Rights states that everyone has the right to enjoy the benefits of science and its applications. All States should actively support the development and dissemination of new climate mitigation and adaptation technologies including technologies for sustainable production and consumption. Environmentally clean and sound technologies should be accessibly priced, the cost of their development should be equitably shared, and their benefits should be fairly distributed between and within countries. Technology transfers between States should take place as needed and appropriate to ensure a just, comprehensive and effective international response to climate change. States should also take steps to ensure that global intellectual property regimes do not obstruct the dissemination of mitigation and adaptation technologies while at the same time ensuring that these regimes create appropriate incentives to help meet sustainable development objectives. The right of indigenous peoples to participate in decision making related to and benefit from the use of their knowledge, innovations and practices should be protected.

8. **To protect human rights from business harms:** The United Nations Guiding Principles on Business and Human Rights affirm that States have an obligation to protect human rights from harm by businesses, while businesses have a responsibility to respect human rights and to do no harm. States must take adequate measures to protect all persons from human rights harms caused by businesses; to ensure that their own activities, including activities conducted in partnership with the private sector, respect and protect human rights; and where such harms do occur to ensure effective remedies. Businesses are also duty-bearers. They must be accountable for their climate impacts and participate responsibly in climate change mitigation and adaptation efforts with full respect for human rights. Where States incorporate private financing or market-based approaches to climate change within the international climate change framework, the compliance of businesses with these responsibilities is especially critical.

9. **To guarantee equality and non-discrimination:** States have committed to guarantee equality and non-discrimination. Efforts to address climate change should not exacerbate inequalities within or between States. For example, indigenous peoples' rights should be fully reflected in line with the United Nations Declaration on the Rights of Indigenous Peoples and actions likely to impact their rights should not be taken without their free, prior and informed consent. Care should also be taken to ensure that a gender perspective, including efforts to ensure gender equality, is included in all planning for climate change mitigation and adaptation. The rights of children, older persons, minorities, migrants and others in vulnerable situations must be effectively protected.

10. **To ensure meaningful and informed participation:** The International Covenant on Civil and Political Rights and other human rights instruments guarantee all persons the right to free, active, meaningful and informed participation in public affairs. This is critical for effective rights-based climate action and requires open and participatory institutions and processes, as well as accurate and transparent measurements of greenhouse gas emissions, climate change and its impacts. States should make early-warning information regarding climate effects and natural disasters available to all sectors of society. Adaptation and mitigation plans should be publicly available, transparently financed and developed in consultation with affected groups. Particular care should be taken to comply with relevant

human rights obligations related to participation of persons, groups and peoples in vulnerable situations in decision-making processes and to ensure that adaptation and mitigation efforts do not have adverse effects on those that they should be protecting. Human rights impact assessments of climate actions should be employed to ensure that they respect human rights. Further, States should develop and monitor relevant human rights indicators in the context of climate change, keeping disaggregated data to track the varied impacts of climate change across demographic groups and enabling effective, targeted and human rights compliant climate action.

Part I. Human Rights and Climate Change

"Climate change threatens our ability to achieve sustainable development, and in some cases, our very survival."

Ban Ki-moon, Secretary General of the United Nations

As emphasized by the United Nations Human Rights Council in its Resolution 26/27, "climate change is an urgent global problem requiring a global solution." The Council called for international cooperation to implement the United Nations Framework Convention on Climate Change (UNFCCC) "in order to support national efforts for the realization of human rights affected by climate change-related impact." The Council affirmed that "human rights obligations, standards and principles have the potential to inform and strengthen international, regional and national policymaking in the area of climate change, promoting policy coherence, legitimacy and sustainable outcomes."

In recognition of these facts, the Human Rights Council held a full-day panel discussion on human rights and climate change on 6 March 2015.[2] The discussion addressed challenges posed by climate change towards the realization of all human rights for everyone, particularly those in vulnerable situations, and the adverse impacts of climate change on States' efforts to progressively realize the right to food. Panellists, who included eminent speakers representing United Nations Member States, intergovernmental organisations, civil society and academia, recommended forward-looking rights-based solutions to address climate change.[3]

This submission to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change is an outcome of the above-mentioned panel discussion that is complemented by human rights commentary and analysis. It is intended to inform climate action and policy at all levels including the work of the Conference of the Parties to the UNFCCC (COP) and to further elucidate the critical links between human rights and climate change identified by panellists. Panellists highlighted a number of human rights challenges resulting from or exacerbated by climate change as well as efforts to mitigate and adapt to it. They stressed the importance of ensuring transparency and participation, especially of those most affected, in all climate-change

[2] The summary report of this discussion is contained in A/HRC/29/19

[3] For more information about this discussion including the concept note and statements of panellists please see http://www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/Discussion6March2015.aspx (last accessed 6 October 2015).

related action. They made an unequivocal call for integration of human rights in COP 21 (2015 Paris) and highlighted the impacts of climate change on the enjoyment of human rights.

Panellists' comments inform the structure of this document which begins with a background discussion of the human rights implications of climate change and the global discourse so far. It then proceeds to elaborate upon the legal basis of specific human rights affected by climate change, the factual basis for alleged human rights violations caused by climate change, and recommendations for a rights-based approach to climate change.

Why integrate human rights in climate change-related actions?

Human rights are universal legal guarantees that protect individuals, groups and peoples against actions and omissions that interfere with their fundamental freedoms and entitlements. Human rights law obliges governments (principally) and other duty-bearers to respect, promote, protect and fulfil all human rights. Human rights are universal and are based on the inherent dignity and equal worth of all human beings. They are equal, indivisible, interrelated and interdependent, and cannot be waived or taken away. Furthermore, human rights are legally protected, and impose obligations in relation to actions and omissions, particularly of States and State actors.

It is now beyond dispute that climate change caused by human activity has negative impacts on the full enjoyment of human rights. Climate change has profound impacts on a wide variety of human rights, including the rights to life, self-determination, development, food, health, water and sanitation and housing. The human rights framework also requires that global efforts to mitigate and adapt to climate change should be guided by relevant human rights norms and principles including the rights to participation and information, transparency, accountability, equity, and non-discrimination. Simply put, climate change is a human rights problem and the human rights framework must be part of the solution.

The Fifth Assessment Report (AR5) by the Intergovernmental Panel on Climate Change (IPCC) unequivocally states that "human influence on the climate system is clear, and recent anthropogenic emissions of green-house gases are the highest in history."[4] It notes that "recent climate changes have had widespread impacts on human and natural systems."[5] AR5 found that "people who are socially, economically, culturally, politically, institutionally or otherwise marginalized are especially vulnerable to climate change and also to some adaptation and mitigation responses.[6] During the Human Rights Council panel discussion, the United Nations Deputy High Commissioner for Human Rights Flavia Pansieri affirmed that "those who have contributed the least to greenhouse gas emissions will be the ones who bear the greatest burden; the poorest people, in the poorest countries, their children, and all our children". Former High Commissioner for Human Rights, Mary Robinson, now President of the Mary Robinson Foundation – Climate Justice, described climate change as "probably the greatest human rights challenge of the 21st century". Other panellists

[4] Intergovernmental Panel on Climate Change, *Fifth Assessment Report: Climate Change 2014 Synthesis Report Summary for Policymakers* (Bonn: United Nations Framework Convention on Climate Change), p. 2 (hereinafter IPCC, AR 5).
[5] IPCC, *AR5*, p. 2.
[6] IPCC Working Group II, *Climate Change 2014: Impacts, Adaptation, and Vulnerability, Summary for Policymakers,* (WMO and UNEP) p. 6.

described climate change as an ethical and moral challenge of a global scale that demands a human rights solution. Recognizing the importance of human rights in this context, parties to the UNFCCC have agreed to "fully respect human rights in all climate change-related actions".[7]

Despite the clear human rights implications of failure to act to prevent climate change, the international community has not taken adequate preventive action. In fact, some of the climate change mitigation and adaptation efforts that have been employed to date have had counterproductive human rights impacts, particularly on the most marginalized. Taken as a whole, existing climate change mitigation and adaptation efforts have fallen far short of the level of ambition necessary to prevent and/or remedy the negative human rights impacts of climate change in fulfilment of the obligations of States and other duty-bearers.

Integrating human rights in climate actions will necessitate higher levels of ambition and improve mitigation and adaptation strategies by making them more effective and inclusive. During the panel discussion, several delegations underlined the importance of integrating human rights in climate policy, including participation, access to information and access to justice. A human rights based approach addresses cross cutting social, cultural, political and economic problems, while empowering persons, groups and peoples, especially those in vulnerable situations. This can make considerable contributions to climate change policies, making them less myopic and more responsive, sensitive, and collaborative.

What human rights principles apply in the context of climate change?

"These are basic issues of justice."

Olav Fykse Tveit, General Secretary, World Council of Churches

States are obligated to respect, protect, promote, and fulfil all human rights for all people. This includes an affirmative obligation to prevent foreseeable harms including those caused by climate change. The UN Charter, the Universal Declaration of Human Rights, the International Covenant on Economic, Social and Cultural Rights (ICESCR), and the UN Declaration on the Right to Development all make clear that State human rights obligations require both individual action and international cooperation. According to the Universal Declaration of Human Rights everyone is entitled to a social and international order in which the rights and freedoms therein can be fully realized and everyone has duties to the community. Similarly, the ICCESCR declares that States should "take steps, **individually and through international assistance and co-operation,** especially economic and technical, to the maximum of [their] available resources, with a view to achieving progressively the full realization of rights recognized in the present Covenant".

The Declaration on the Right to Development further calls on States to establish through their individual and collective actions, national and international conditions favourable to the realization of the right to development and all human rights including through international cooperation to provide developing countries "with appropriate means and facilities to foster their

[7] United Nations Framework Convention on Climate Change, *Report of the Conference of the Parties on its sixteenth session* (Cancun: United Nations, 2010), FCCC/CP/2010/7/Add.1.

comprehensive development". It also emphasizes that "**all human beings have a responsibility for development,** individually and collectively… and they should therefore promote and protect an appropriate political, social and economic order for development". The UN *Guiding Principles on Business and Human Rights* confirm that businesses also have human rights responsibilities. They reaffirm that **all responsible actors should be held accountable for the negative impacts of their activities** and that all actors share responsibility for remedying these impacts. [8]

The basic human rights principles of **equality and non-discrimination** require action to address and remedy the disproportionate impacts of climate change on the most marginalized and to ensure that climate actions benefit persons, groups and peoples in vulnerable situations and reduce inequalities. The disproportionate impacts of climate change on persons in vulnerable situations raise concerns of **climate justice, fairness, equity and access to remedy**. The Universal Declaration of Human Rights, the International Covenant of Civil and Political Rights (ICCPR) and other human rights instruments make it clear that **all persons who suffer human rights harms are entitled to access to effective remedy**. The Human Rights Council panel repeatedly called for climate justice and immediate action to mitigate and adapt to climate change. Prime Minister Enele Sopoaga of Tuvalu described the human rights impacts of climate change as an issue of justice that requires immediate international action and adequate compensation of victims. According to Olav Fykse Tveit, General Secretary of the World Council of Churches, the disproportionate impact of climate change on persons least responsible for climate change and most vulnerable to it is an issue of fundamental injustice.

The Declaration on the Right to Development by calling for the **fair distribution of the benefits of development** and for developed countries to assist developing countries, embraces the need for equitable development. International cooperation, equality and non-discrimination, accountability and equity reflect human rights commitments and are critical to address climate change. The principle of equity, including **intergenerational equity**, is also specifically recognized in the UNFCCC which calls for all parties to "protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their **common but differentiated responsibilities and respective capabilities**". In spite of the above, State commitments under the UNFCCC have so far failed to provide for and ensure the implementation of adequate mitigation and adaptation measures to limit climate change and its adverse effects on human rights, the economy, public health and the environment.

The UNFCCC is a framework convention and it is open to evolution and continuing negotiations. There is a high degree of hope that the agreement negotiated at COP21 in Paris and any subsequent agreements will raise the level of ambition of climate action in order to protect human rights from the adverse effects of climate change. In these negotiations and throughout related processes, the human rights principles of **transparency, participation and accountability** have an important role to play.[9] "Participation is a basic human right in itself, [and] a precondition or catalyst for the realization and enjoyment of other human rights."[10] In order to ensure sustainable

[8] The legal obligations of States and enterprises to address climate change are the subject of growing consensus and analysis. See e.g. the Oslo Principles on Global Obligations to Reduce Climate Change (1 March 2015) available at: http://www.osloprinciples.org/principles/ (last accessed 7 October 2015).

[9] The Aarhus Convention of the United Nations Economic Commission for Europe on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters highlights the importance of these principles in the context of environmental issues.

[10] United Nations General Assembly, A/HRC/23/36: *Report of the Special Rapporteur on extreme poverty and human rights, Magdalena Sepúlveda Carmona* (New York: United Nations, 2013), Summary.

development and appropriate mechanisms for mitigating and adapting to climate change, the COP21 outcome should reflect human rights principles and a rights-based framework should shape both the substantive commitments of parties and the processes by which they are agreed and carried out.

How can human rights be integrated in climate-change related actions?

Human rights can be integrated in climate-change related actions by applying a rights-based approach to policy and development as called for by the Declaration on the Right to Development and agreed to in the UN Common Understanding of a Human Rights-Based approach to Development Cooperation.[11] The UN Common Understanding emphasizes key human rights principles like universality and inalienability, indivisibility, interdependence and interrelatedness, non-discrimination and equality, participation and inclusion, accountability and the rule of law. It outlines a conceptual framework for development based on international human rights standards in order to promote and protect human rights in all development activities. A rights-based approach analyses obligations, inequalities and vulnerabilities, and seeks to redress discriminatory practices and unjust distributions of power. It anchors plans, policies and programmes in a system of rights, and corresponding obligations established by international law.

The essential attributes of a human rights-based approach are the following:

- As policies and programmes are formulated, the main objective should be to fulfil human rights.
- The *rights-holders* and their entitlements must be identified as well as the corresponding *duty-bearers* and their obligations in order to find ways for strengthening the capacities of rights-holders to make their claims and of duty-bearers to meet their obligations.
- Principles and standards derived from international human rights law – especially the Universal Declaration of Human Rights and the core universal human rights treaties, should guide all policies and programming in all phases of the process.

A human rights-based approach should be integrated in any climate change adaptation or mitigation measures, such as the promotion of alternative energy sources, forest conservation or tree-planting projects, resettlement schemes and others. Affected individuals and communities must participate, without discrimination, in the design and implementation of these projects. They must have access to due process and to remedy if their rights are violated.

During the panel discussions, the importance of a rights-based approach to climate change was raised frequently. Martin Khor, Executive Director of the South Centre, observed that such an approach demands the inclusion of climate justice, equity, respect for human rights as well as international cooperation and solidarity. These factors are essential in supporting developing countries, including through finance and technology. According to Mary Robinson, a human rights-based approach to development should focus on fulfilling for all persons the minimum conditions necessary for a life of human dignity. Faced with climate change, persons in vulnerable situations must have their rights protected, obtain access to measures of adaptation and resilience, and receive the support of the international community. A rights-based response should also maximize inclusion, participation and equality.

[11] See http://hrbaportal.org/the-human-rights-based-approach-to-development-cooperation-towards-a-common-understanding-among-un-agencies last accessed on 7 September 2015.

Critically, it is not enough to simply focus on ensuring that climate actions respect human rights. A rights-based approach requires States to take affirmative actions to respect, protect, promote and fulfil all human rights for all persons. Failure to prevent foreseeable human rights harms caused by climate change, or at the very least to mobilize maximum available resources in an effort to do so, constitutes a breach of this obligation. Human rights obligations apply to the goals and commitments of States in the area of climate change and require that climate actions should focus on protecting the rights of all those vulnerable to climate change starting with those most affected. Human rights principles articulated in the Declaration on the Right to Development and other instruments call for such climate action to be both individual and collective and for it to benefit all persons, particularly the most marginalized. The UNFCCC further elaborates upon the need for equitable climate action calling for States to address climate change in accordance with their common but differentiated responsibilities and respective capabilities in order to benefit present and future generations.

State commitments therefore require international cooperation, including financial, technological and capacity-building support, to realise low-carbon, climate-resilient, and sustainable development, while also rapidly reducing greenhouse gas emissions. Only by integrating human rights in climate actions and policies, and empowering people to participate in policy formulation, can States promote sustainability and ensure the accountability of all duty-bearers for their actions. This, in turn, will promote consistency, policy coherence and the enjoyment of all human rights.

What actions have been taken by international human rights mechanisms so far?

Since 2008, the Human Rights Council and its Special Procedures Mechanisms have been actively involved in addressing the human rights impacts of climate change. The Council has held two panel discussions on human rights and climate change, which was also the theme of the 2010 Social Forum[12]. The following resolutions on human rights and climate change have been issued to date:

- **Resolution 7/23** (March 2008): The Council expressed concern that climate change "poses an immediate and far-reaching threat to people and communities around the world" and requested OHCHR to prepare a study on the relationship between climate change and human rights (A/HRC/10/61).
- **Resolution 10/4** (March 2009): The Council noted that "climate change-related impacts have a range of implications, both direct and indirect, for the effective enjoyment of human rights …" and that such effects "will be felt most acutely by those segments of the population who are already in a vulnerable situation …"
- **Resolution 18/22** (September 2011): The Council affirmed that human rights obligations, standards, and principles have the potential to inform and strengthen international and national policy-making in the area of climate change, promoting policy coherence, legitimacy, and sustainable outcomes. They called for a seminar to address the adverse impacts of climate change on the full enjoyment of human rights and a summary report of the seminar (A/HRC/20/7).
- **Resolution 26/27** (July 2014): The Council emphasized the need for all States to enhance international dialogue and cooperation to address the adverse impacts of climate change on the enjoyment of human rights including the right to development. It called for dialogue, capacity-building, mobilization of financial resources, technology transfer, and other forms of cooperation to

[12] The report of the 2010 Social Forum is contained in A/HRC/16/62.

facilitate climate change adaptation and mitigation, in order to meet the special needs and circumstances of developing countries.

- **Resolution 29/15** (July 2015): The Council emphasized the importance of continuing to address the adverse consequences of climate change for all and called for a panel discussion and analytical study on the impacts of climate change on the enjoyment of the right to health.

The Council has also addressed the issue of the impact of climate change in the framework of its work on human rights and the environment, particularly resolutions **16/11**, **19/10**, **25/21** and **28/11**. In these resolutions, the Human Rights Council has recognized that the impact of climate change on the full enjoyment of human rights is a global problem that requires a global solution. It has highlighted the importance of addressing human rights in the context of discussions related to the UNFCCC and the post-2015 development agenda and made available the results of its debates, studies and activities to the sessions of the Conference of Parties to the UNFCCC. The Council has clearly articulated that "human rights obligations and commitments have the potential to inform and strengthen international and national policymaking in the area of climate change".

The outcome document of the 2012 United Nations Conference on Sustainable Development "The Future We Want" reaffirmed the importance of human rights for achieving sustainable development. Prior to this Conference, the UN High Commissioner for Human Rights had emphasized the responsibilities of all States to ensure full coherence between efforts to advance the green economy, on the one hand, and their human rights obligations on the other, in an open letter to all Permanent Missions in New York and in Geneva.[13] In addition to this advocacy, OHCHR has produced a number of reports on the effect of climate change on the enjoyment of human rights.[14]

Mandate holders of the special procedures mechanisms of the Human Rights Council have also regularly addressed the human rights impacts of climate change in the course of implementing their mandates. The Special Rapporteur on human rights and the environment has been particularly engaged, and issued a Climate Change mapping report in 2014 that describes statements made by human rights bodies regarding human rights that are threatened by climate change and human rights obligations related to climate change.[15] In addition to this report which highlights work of the special procedures mechanisms, the human rights treaty-bodies and other relevant bodies related to climate change, there have been several joint advocacy efforts on human rights and climate change, by special procedures mandate holders. These include:

[13] *See* Open Letter of the High Commissioner for Human Rights on Sustainable Development (30 March 2012) available at http://www.ohchr.org/Documents/Issues/Development/OpenLetterHC.pdf (last accessed 7 September 2015).

[14] *See e.g.* A/HRC/10/61, Analytical study on the relationship between climate change and human rights; Summary Report of the Panel discussion on the relationship between climate change and human rights held at the eleventh session of the HRC (June 2009) following resolution 10/4, available at: http://www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/Panel.aspx last accessed 7 September 2015; A/HRC/16/62, Report of the 2010 Social Forum on the adverse effects of climate change on the full enjoyment of human rights; A/HRC/20/7, Report of the United Nations High Commissioner for Human Rights on the outcome of the seminar addressing the adverse impacts of climate change on the full enjoyment of human rights; A/HRC/29/19, Summary report of the Office of the United Nations High Commissioner for Human Rights on the outcome of the full-day discussion on specific themes relating to human rights and climate change.

[15] Mapping Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment: Focus report on human rights and climate change (June 2014) available at http://www.ohchr.org/Documents/Issues/Environment/MappingReport/ClimateChangemapping15-August.docx (last accessed 7 September 2015).

- An Open Letter dated 17 October 2014 to State Parties to the UNFCCC from 28 Special Procedures mandates that urges the UNFCCC "to adopt urgent and ambitious mitigation and adaptation measures to prevent further harm" and to include in the 2015 climate agreement a commitment that "the Parties shall, in all climate change related actions, respect, protect, promote and fulfil human rights for all."[16] At the panel discussion, John Knox, the Special Rapporteur on human rights and the environment, emphasized critical elements of this letter which describes climate change as one of the greatest challenges of our generation, highlights its disproportionate effects on disadvantaged, marginalized, and excluded person, groups and peoples, and urges the incorporation of human rights obligations into climate change negotiations
- A joint statement drawing attention to the grave harm even a two degree Celsius increase in average global temperature would cause to the enjoyment of human rights issued on the occasion of World Environment Day 2015.[17] The Special Rapporteurs urged climate negotiators to reach an agreement that reflects the obligations human rights law places on States to protect and promote human rights.
- A report prepared by several Special Rapporteurs for the Climate Vulnerable Forum, a group of twenty countries that are especially vulnerable to the effects of climate change. On behalf of the Forum, the Philippines, the current chair, submitted the report, entitled **"**The Effects of Climate Change on the Full Enjoyment of Human Rights", on 1 May 2015 to the Conference of the Parties (COP) to the UNFCCC.[18] This report warns that a temperature increase of just 1.5 degrees Celsius will threaten human rights, challenging the level of ambition of the current temperature goal of two degrees Celsius.

What steps should be taken going forward?

In the Geneva Pledge for Human Rights in Climate Action, announced on 13 February 2015, eighteen States committed to facilitate the sharing of best practices and knowledge between human rights and climate experts at the national level, in order to build collective capacity to deliver responses to climate change that are good for people and the planet. The Geneva Pledge remains open to States and is one of many important initiatives aimed at improving understanding of the linkages between human rights and climate change. During the panel discussions, panellists repeatedly emphasized the importance of this initiative noting that improved communication between these distinct constituencies is an important prerequisite for a greater integration of human rights in the climate change discussion.

The ultimate objective of these and other initiatives must be to take this discussion from a theoretical level to a practical one which inspires urgent, immediate, rights-based action to mitigate and adapt to the negative impacts of climate change. By building upon previous work in the area of human rights and climate change and the panel discussion of 6 March 2015, the remainder of this report seeks to inform and inspire the action needed to integrate human rights in climate action at COP 21 and beyond. The next section examines particular rights affected by climate change. Part III,

[16] Available at: http://www.ohchr.org/Documents/HRBodies/SP/SP_To_UNFCCC.pdf (last accessed 7 September 2015).
[17] Available at: http://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=16049&LangID=E (last accessed 7 September 2015).
[18] Available at: http://www.thecvf.org/wp-content/uploads/2015/05/humanrightsSRHRE.pdf (last accessed 7 September 2015).

composed of recommendations from the panel discussion offers several ideas for integrating human rights in climate action that respects, protects, promotes and fulfils all human rights.

Part II: Which human rights are most affected by climate change?

"Climate change, human-induced climate change, is obviously an assault on the ecosystem that we all share, but it also has the added feature of undercutting rights, important rights like the right to health, the right to food, to water and sanitation, to adequate housing, and, in a number of small island States and coastal communities, the very right to self-determination and existence."

Flavia Pansieri, United Nations Deputy High Commissioner for Human Rights,

The relationship between climate change and the enjoyment of human rights is both too complex and too vast to fully describe here. Instead, this Part focusses on specific examples referred to by panellists during the March 2015 discussion at the Human Rights Council. In this context, it is critical to remember that although specific rights may be discussed separately, all human rights are universal, inalienable, indivisible, interdependent and interconnected. A preventable violation of one right can have far-reaching consequences for other, and in some instances, all human rights.

The panel discussion, the IPCC, and the overwhelming consensus among experts make it abundantly clear that climate change negatively impacts human rights. In this regard, it is useful to consider what States and other duty-bearers are obligated to do in the circumstances. This question is addressed briefly here and more thoroughly in OHCHR's Key Messages on Human Rights and Climate Change and in Part III. As a starting point, States are legally bound to respect, protect, promote, and fulfil all human rights. In doing so, they have committed to work individually and collectively, to eliminate discrimination and promote equality, and to expend maximum available resources for the progressive realization of economic, social and cultural rights as well as the advancement of civil and political rights and the right to development. The following discussion of specific issues demonstrates the grave consequences of failure to comply with these obligations.

The right to life

"…in dealing with sustainable development issues, unless you deal with the issues of climate change, life, particularly of the most vulnerable, will continue to be threatened and compromised, and life is already compromised and threatened on most island countries…"

Enele Sosene Sopoaga, Prime Minister, Tuvalu

According to the Universal Declaration of Human Rights "everyone has the right to life, liberty and security of person." The International Covenant on Civil and Political Rights (ICCPR) reiterates that "every human being has the inherent right to life." All States have committed to respect, protect, promote, and fulfil the right to life. This entails, at the very least, that States should take effective measures against foreseeable and preventable loss of life.

Climate change clearly poses a threat to human life. Abul Hassan Mahmood Ali, Foreign Minister of Bangladesh, described this threat as "existential". As highlighted by Renan Dalisay,

Administrator of the National Food Authority of the Philippines, in his remarks about Typhoon Yolanda which "left a path of death and destruction, claiming no less than 7500 precious Filipino lives, mostly in economically vulnerable communities," this threat extends to both present and future generations. Yolanda, or Typhoon Haiyan as it is more commonly known internationally, was an extreme weather event.

According to the IPCC, the risk of having further extreme weather events and the resulting endangerment of human lives is "moderate to high at temperatures of 1°C to 2°C above pre-industrial levels."[19] A recent report by the World Bank affirms this risk, finding that "further health impacts of climate change could include injuries and deaths due to extreme weather events."[20]

In the context of climate change, extreme weather events may be the most visible and most dramatic threat to the enjoyment of the right to life but they are by no means the only one. Climate change kills through drought, increased heat, expanding disease vectors and a myriad of other ways. According to a report by the Climate Vulnerable Forum and DARA International, climate change is already responsible for approximately 400,000 deaths per year and that number is expected to rise to 700,00 by 2030.[21] In order to uphold the right to life, States must take effective measures to mitigate and adapt to climate change and prevent foreseeable loss of life.

The right to self-determination

"There are realities where extreme events surpass the ability to adapt…and displacement and migration are the only avenues for survival."

Mary Robinson, President, Mary Robinson Foundation – Climate Justice

Article 1 of the UN Charter calls for respect of the "self-determination of peoples". Further, Common Article 1 of the ICCPR and the ICESCR states that "all peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development." States must respect the right to self-determination of all peoples and ensure that they have the necessary resources to provide for themselves. Climate change not only poses a threat to the lives of individuals; but also to their ways of life and livelihoods, and to the survival of entire peoples.

During the panel discussion, Victoria Tauli-Corpuz, United Nations Special Rapporteur on the rights of indigenous peoples, highlighted that "the realisation of the rights to self-determination and development" are "being seriously challenged" by climate change. Small Island Developing States and Least Developed Countries have identified even warming of 1.5°C as a "serious threat" to their continued existence.[22] These views are supported by the IPCC in its review of the effects of rising

[19] IPCC, *AR5,* p. 19.
[20] The World Bank, *Turn down the heat: why a 4°C warmer world must be avoided* (2012), p. xvii (hereinafter *Turn down the heat 2012*).
[21] See DARA and the Climate Vulnerable Forum, *Second edition: A guide to the cold calculus of a hot planet* (DARA and Climate Vulnerability Monitor, 2012), p. 17.
[22] World Bank, *Turn down the heat 2012,* p. xiii.

sea-levels on "coastal systems and low-lying areas."[23] According to a recent report by a group of United Nations Special Rapporteurs, climate change challenges the ability of peoples in small island states to "continue to live on their traditional territory, and… to enjoy and exercise their right to self-determination". [24] States are obliged to take adequate measures to guarantee the rights of all peoples to self-determination in the face of the looming threat posed by climate change but they have so far failed to do so.

The right to development

Pursuant to Article 55 of the UN Charter, States should promote "conditions of economic and social progress and development". The ICESCR and ICCPR emphasize that all peoples should "freely determine their political status and freely pursue their economic, social and cultural development". The Declaration on the Right to Development presents an integrated framework for the pursuit of all three pillars of the UN Charter – peace and security, human rights and development. It articulates a holistic vision of development as "an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized." The Declaration underscores that people must be the central subjects, active participants, and beneficiaries of development. It articulates that all States and all persons have responsibilities for development and States should work individually and collectively to create an internationally enabling environment for development in which the benefits of development are equitably shared by all.

In particular, States should take steps individually and collectively to guarantee all persons the ability to enjoy economic, social, cultural and political development. Climate change poses an existential threat to people's enjoyment of their right to development. According to World Bank President, Jim Yong Kim "unless the world takes bold action now, a disastrously warming planet threatens to put prosperity out of reach of millions and roll back decades of development".[25] The IPCC found that "limiting the effects of climate change is necessary to achieve sustainable development and equity, including poverty eradication."[26] Importantly, while AR5 stressed the "threat" that is posed to sustainable development by climate change, the report also noted with "high confidence" that "there are many opportunities to link mitigation, adaptation and the pursuit of other societal objectives through integrated responses."[27] Moreover, in the recently adopted Sustainable Development Goals, combating climate change (see Goal 13) has been recognized as instrumental to sustainable development, highlighting the importance of addressing climate change and its adverse effects to secure sustainable, inclusive development that benefits all persons.

[23] IPCC, *AR5*, p. 13.
[24] Devandas Aguilar et al., *The effects of climate change on the full enjoyment of human rights* (OHCHR, 2015), p. 16.
[25] The World Bank, *Turn down the heat: Climate extremes, regional impacts, and the case for resilience*, p. xii (hereinafter *Turn down the heat 2013*).
[26] IPCC, AR5, p. 17.
[27] IPCC, AR5, p. 13.

For these reasons, the right to development was the subject of marked emphasis during the panel discussions. Panellists agreed that the right to development should inform humanity's collective response to climate change. Renan Dalisay cautioned that "climate change dilutes the right of vulnerable communities to socio-economic development." Elizabeth Mpofu, General Coordinator of La Via Campesina, described how many developing countries were forced to divert financial and human resources away from development priorities like health, education and agrarian support to confront climate change and its impacts. Mary Robinson affirmed that all individuals and peoples had a right to development and that climate action should be directed toward fulfilling that right. She emphasized that the international community must work together to address challenges that climate change poses to the realization of human rights, especially the right to development.

Mithika Mwenda, Secretary General of the Pan-African Climate Justice Alliance, stated that climate change is a problem that requires a broad understanding of human rights and an emphasis on realizing the right to development, in particular, equitable or even equal development between States. He emphasized that in addition to having the obligation to protect human rights within their borders, States and the international community had broader responsibilities to promote the realization of all human rights for all and should act collectively to address climate change, including through the Secretariat of the UNFCCC. The discussions made it clear that States must take urgent action in order to mitigate and adapt to climate change and promote the realization of the right to development for everyone.

The right to food

"In extreme cases, food insecurity caused by droughts or floods as a result of climate change has literally paralysed some developing States, such that human rights gains have been reversed to deplorable levels."

Elizabeth Mpofu, General Coordinator, La Via Campesina

The right to food is enshrined in the Universal Declaration of Human Rights and the ICESCR. Article 11 of the ICESCR upholds the "fundamental right of everyone to be free from hunger" and calls upon States acting individually and through international co-operation, "to ensure an equitable distribution of world food supplies in relation to need." As with all human rights, States must respect, protect, promote, and fulfil the human right to food. Further, States have committed to mobilize maximum available resources for the progressive realization of the right to food and all other rights contained in the ICESCR.

According to the IPCC, climate change undermines food security;[28] therefore, it threatens realization of the right to food. The World Bank has estimated that a 2°C increase in average global temperature (the proposed target for international climate mitigation efforts) would put "between 100 million and 400 million more people at risk of hunger and could result in over 3 million additional deaths from malnutrition each year.[29] Moreover, persons, groups and peoples in vulnerable situations are at a greater risk. For instance, with about two-thirds of the female labour

[28] IPCC, AR5, p. 13.
[29] The World Bank, *World Development Report 2010: Development and Climate Change* (2010), pp. 4 – 5.

force in developing countries, and more than 90 percent in African countries, engaged in agricultural work, the threats to loss of harvests, often the sole source of food and income, have severe implications for many women in rural areas.[30]

During the panel discussion, several panellists described the many ways in which climate change affects the enjoyment of the right to food. According to Renan Dalisay, "damage to agriculture and food production caused by climate change negatively impacts livelihoods, food security and the human right to food." Ana Maria Suarez Franco, Permanent Representative in Geneva for Food First Information and Action Network (FIAN), described how climate change-induced "extreme events, including droughts and floods, the salinization of water used for irrigation, desertification, [and] water shortages…are affecting the availability of food in the country and cities."

In her remarks during the discussion, Xiangjun Yao, Director of the Geneva Office of the Food and Agriculture Organization, highlighted that the adverse effects of climate change on the realization of the human right to food had to be addressed so that the "more than 800 million people suffering from hunger and two billion people affected by the diverse forms of malnutrition" could see this right fulfilled. In spite of these well-known threats, the international community has not taken adequate climate action and has left climate change, perhaps the single greatest threat to fulfilment of the right to food largely unchecked.

The right to water and sanitation

Although the right to water is not explicitly recognized in the ICESCR, General Comment No. 15 of the Committee on Economic, Social and Cultural Rights articulates this right stating: "The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses."[31] In its resolution 64/292, the General Assembly recognised "the right to safe and clean drinking water and sanitation as a human right that is essential for the full enjoyment of life and all human rights."[32] The right to water and sanitation is also found in legal instruments such as the Convention on the Elimination of Discrimination against Women (CEDAW), among others. Pursuant to General Comment 15, "States [sic] parties have to adopt effective measures to realize, without discrimination, the right to water."[33]

According to the IPCC, "climate change is projected to reduce renewable surface water and groundwater resources in most dry subtropical regions…intensifying competition for water".[34] The IPCC further found that climate change will likely increase the risk of water scarcity in urban areas and "rural areas are expected to experience major impacts on water availability and supply."[35] According to a recent World Bank report, a 2 degree Celsius average global increase in temperature

[30] See UN Women Watch*, Fact Sheet: Women Gender Equality and Climate Change* (2009).
[31] United Nations Committee on Economic, Social and Cultural Rights, *General Comment No. 15* (New York: United Nations, 2002), Art. 2.
[32] United Nations General Assembly, *64/292: The human right to water and sanitation* (2010), Art. 1.
[33] UNCESCR, *General Comment No. 15,* Art. 1.
[34] IPCC, *AR5*, p. 13.
[35] IPCC, *AR5*, pp. 15 – 16.

may result in 1 to 2 billion no longer having enough water to meet their needs.[36] Reduced access to water will disproportionately impact persons, groups and peoples in vulnerable situations. For example, reduced access to water introduces added burdens for women and girls in developing countries, who are often responsible for fetching water for their families from distant sources and have distinct needs for water and sanitation.[37]

During the panel discussions, several speakers stressed the importance of water and sanitation, and the impacts that climate change could have on this right. According to Minister Abul Hassan Mahmood Ali, "millions at the bottom of the development pyramid…are exposed to various climatic shocks. Slow-onset disasters like river erosion, desertification, ground water contamination, or inland salinity intrusion do not make headlines, yet impact people's living." There can be no doubt that the right to water and sanitation which is derived from the rights to health and an adequate standard of living found within the ICESCR is threatened by inadequate climate action.

The right to health

"Adverse effects of climate change" means changes in the physical environment or biota resulting from climate change which have significant deleterious effects… on human health and welfare…. The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects.

United Nations Framework Convention on Climate Change Articles 1 and 3

The human right to health is articulated in the Universal Declaration of Human Rights and in Article 12 of the ICESCR which provides that all persons have the right "to the enjoyment of the highest attainable standard of physical and mental health." The Human Rights Council has specifically recognized the impacts of climate change on the right to health on multiple occasions, most recently in its resolution 29/15 which calls for a panel discussion and a detailed study on the relationship between climate change and the enjoyment of the right to health.

According to World Bank reports, climate change will cause "health impacts [that] are likely to increase and be exacerbated by high rates of malnutrition,"[38] including potential increases in vector-borne diseases and "heat-amplified levels of smog [that] could exacerbate respiratory disorders." [39] In its most recent report, the IPCC found that "climate change is expected to lead to increases in ill-health in many regions and especially in developing countries with low income, as compared to a baseline without climate change".[40]

During the panel discussion, Dan Bondi Ogolla, Coordinator and Principal Legal Adviser at the UNFCCC, stressed that the right to health is safeguarded in the UNFCCC, as "the definition of 'adverse effects' of climate change under the Convention includes impacts…on 'human health and welfare'." However, the level of ambition in climate action to date has fallen short of that necessary

[36] World Bank, *World Development Report,* 5.
[37] See UN Women Watch, *Fact Sheet: Women Gender Equality and Climate Change* (2009).
[38] The World Bank, *Turn down the heat 2013,* p. 24.
[39] World Bank, *Turn down the heat 2012,* p. xvii.
[40] IPCC, *AR5*, p. 15.

to prevent adverse impacts on the enjoyment of the human right to health as evidenced by the current and projected impacts of climate change on the enjoyment of this right.

The right to housing

> **"We have to reconcile ourselves with the reality that our islands will be under water, unless we do something very significant and substantial."**
>
> Anote Tong, President, Republic of Kiribati

According to Article 11 of the ICESCR all persons are entitled to an adequate standard of living for themselves and their families including adequate housing. The scope and application of the right to housing is elaborated upon in General Comment No. 4 of the Committee on Economic, Social and Cultural Rights, which states that "the human right to adequate housing…is of central importance for the enjoyment of all economic, social and cultural rights."[41] Like with all other economic, social and cultural rights, States are obliged to expend maximum available resources for the progressive realization of the right to housing for all persons.

Climate change threatens the right to housing in a number of ways. Extreme weather events can destroy homes displacing multitudes of people. Drought, erosion and flooding can gradually render territories inhabitable resulting in displacement and migration. Sea level rise threatens the very land upon which houses in low-lying areas are situated and is expected to "continue for centuries even if the global mean temperature is stabilized." [42]

During the panel discussions, several speakers raised the issue of the right to housing in the context of destructive extreme weather events and rising sea-levels. Stressing the interconnected and cross-cutting nature of the impacts of climate change, Dan Bondi Ogolla noted that "loss of land through sea level rise [also] impacts the right to self-determination [and] to property." President Anote Tong emphasized that climate change may literally erase Kiribati and other low-lying island States from the map and stressed the importance of guaranteeing the displaced inhabitants of low-lying areas "migration with dignity." Migration with dignity would entail migration with the assurance of all human rights to all, including an adequate standard of living and the right to housing.

The right to education

According to the Universal Declaration of Human Rights, "everyone has the right to education." Article 13 of the ICESCR elaborates upon this right, guaranteeing to all persons, free, compulsory primary education and calling on States to progressively realize free secondary education for all. However, the impacts of climate change and the exigencies which it creates threaten the ability of States to expend maximum available resources for the progressive realization of the right to education and can press children into the labour pool prematurely.

[41] United Nations Committee on Economic, Social and Cultural Rights, *General Comment No. 4* (New York: United Nations, 1991), Art. 1.
[42] IPCC, *AR5*, p. 13.

In his 2011 report to the General Assembly, the United Nations Special Rapporteur on the right to food stated that the impacts of successive droughts had caused some children to be "removed from schools because education became unaffordable and because their work was needed by the family as a source of revenue". [43] According to the World Bank, climate impacts can "exacerbate the existing development challenge of ensuring that the educational needs of all children are met." [44]

During the panel discussion, concerns were expressed that the right to education would be hampered by the transfer of funds earmarked for education to disaster relief budgets, or other adaptation measures. According to Mithika Mwenda, this is already transpiring as "funds earmarked for… providing quality education to children [are] diverted to address climate-inspired disasters". Failure to ensure fulfilment of the right to education and the diversion of funds from education not only violates this right but also has long term developmental consequences with substantial implications for the enjoyment of all rights by all.

The right to meaningful and informed participation

Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Principle 10, 1992 Rio Declaration on Environment and Development

The ICCPR guarantees to all persons the right to participate in public affairs and to vote. The Declaration on the Right to Development guarantees the rights of all persons to participate in, contribute to and enjoy economic, social, cultural and political development and to share in the benefits therefrom. According to the Declaration, "States have the right and the duty to formulate appropriate national development policies that aim at the constant improvement of the well-being of the entire population and of all individuals, on the basis of their active, free and meaningful participation in development". CEDAW provides for women's equal right to participate in political and public life at the national and international levels and the Convention on the Rights of Persons with Disabilities (CRPD) calls on State parties to ensure that persons with disabilities have access to political participation rights on an equal basis with others.

In order for participation to be meaningful, it should be adequately informed. Freedom of information is enshrined in Article 19 of the ICCPR, which guarantees "the right to freedom of

[43] United Nations General Assembly, *A/HRC/16/49/Add.2: Report of the Special Rapporteur on the right to food, Olivier De Schutter* (2011), para. 13.
[44] The World Bank, *Turn down the heat 2013,* p. xix.

expression, including the right to seek, receive and impart information and ideas of all kinds." [45] As the Human Rights Committee has stated "States parties should proactively put in the public domain Government information of public interest." [46] In the context of climate change, this includes making available early warning information about the effects of climate change, and transparency regarding adaptation and mitigation measures, their potential impacts and their financing.

Given that persons, groups and peoples in vulnerable situations face greater risk and threats from climate change, it is particularly important that the right to meaningful and informed participation in decisions likely to affect their rights and survival is honoured. In addition to being a human rights obligation, ensuring meaningful and informed participation of all persons in climate policy should also improve outcomes. According to the IPCC, "recognition of diverse interests, circumstances, social-cultural contexts and expectations can benefit decision-making processes" and consequently, enables an effective and rights-based approach to tackling the threat of climate change.[47]

During the panel discussions, panellists emphasized the importance of ensuring the participation of people in vulnerable situations. Noting that women constituted 43 per cent of the agricultural labour force and were critical food producers, Xiangjun Yao stated that engaging women in relevant policymaking was critical to food security. She called for climate policy that addresses the situation and conditions of those most vulnerable to climate change, includes all relevant stakeholders in decision-making processes, enables communities to share knowledge and good practices, and strengthens accountability processes.

Elizabeth Mpofu called upon States to give voice to the voiceless in the discussion of climate change. La Via Campesina represents over 200 million marginalized people, including peasants and fishermen whose voices are not being adequately heard in the climate debate. As a practicing woman farmer from Zimbabwe, she had witnessed first-hand, the impacts of climate change on human rights, particularly the rights to life, food, health, housing, education, self-determination, development and water and sanitation. According to Ms. Mpofu, the inadequate representation of poor and marginalized people in decision-making processes had contributed to these violations and facilitated the subordination of State responsibilities to protect human rights to powerful corporate interests. Companies had engaged in unsustainable and indefensible practices, including land-grabbing, excessive exploitation of mineral resources, over-reliance on fossil fuels and destruction of nature and livelihoods. Persons, groups and peoples in vulnerable situations, including indigenous peoples, peasants and women, had suffered the greatest impacts of these actions and many had been displaced from their lands.

Ms. Mpofu stated that developed countries, through their trade and investment negotiations and even their efforts to mitigate climate change through the mechanism to reduce emissions from deforestation and forest degradation, had further perpetuated human rights abuses and land-grabs and prioritized the interests of the few over those of the many. For example, biofuels and export

[45] *See also* United Nations Human Rights Committee, CCPR/C/GC/34, *General comment No. 34: Article 19: Freedoms of opinion and expression* (12 September 2011).
[46] *Ibid*, para 19.
[47] IPCC, AR5, p. 19

crops had been favoured over locally grown and consumed food. Forests were being taken away from indigenous peoples who relied on them for their livelihoods, shelter, balanced diets and way of life. People were losing their right to self-determination. Participation was critical to address these problems and indigenous peoples must have a voice and vote in climate-related decisions. In the context of indigenous peoples, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) further clarifies that States should obtain the free, prior and informed consent of indigenous peoples before taking any actions that affect their rights including actions related to climate change mitigation and adaptation measures.

Dan Bondi Ogolla agreed that response measures to climate change, such as activities under the auspices of the clean development mechanism, could sometimes violate human rights. He called for human rights principles, such as participation and freedom of information to guide the implementation and development of relevant policies. The importance of participation had been emphasized in a variety of COP decisions , which had held, inter alia, that responses to climate change should be integrated with social and economic development plans; all stakeholders should be engaged in the development and implementation of climate change policies; and adaptation actions should follow a participatory approach, taking into account the views of and likely impacts on those in vulnerable situations. During the interactive dialogues, delegations also highlighted the importance of integrating human rights in climate policy, including participation, access to information and access to justice.

The rights of those most affected by climate change

"We cannot continue to avoid the injustice faced by the poorest, the most vulnerable, and those on the front line"

Anote Tong, President, Republic of Kiribati

Article 1 of the Universal Declaration of Human Rights declares that "all human beings are born equal in dignity and rights". The Declaration, the ICCPR and the ICESCR all contain explicit provisions related to equality and non-discrimination. States have further committed to the principles of equality and non-discrimination in a number of international treaties and other legal instruments including the International Convention on the Elimination of all forms of Racial Discrimination (CERD) and instruments that address the rights of particular persons, groups and peoples such as the CEDAW, the Convention on the Rights of the Child (CRC), the Convention on the Protection of the Rights of All Migrant Workers and Members of their Families, CRPD, the United Nations Declaration on the Right to Development and the UNDRIP. These instruments require States to respect, protect, promote, and fulfil the rights of all persons, particularly those who face added social, economic or political vulnerabilities.

As previously discussed, climate change has disproportionate impacts on the rights of persons, groups and peoples in vulnerable situations. According to the IPCC, "people who are socially, economically, politically, institutionally or otherwise marginalized are especially vulnerable to climate change and also to some adaptation and mitigation responses". [48] This fact has been

[48] IPCC, *AR5,* p. 54.

repeatedly emphasized by Human Rights Council resolutions on the subject of human rights and climate change including resolution 10/4 which states that the impacts of climate change "will be felt most acutely by those segments of the population who are already in a vulnerable situation."

John Knox and other panellists in the March 2015 discussions also highlighted that climate change posed the greatest threat to the rights of people in vulnerable situations. Elizabeth Mpofu emphasized that in addition to its direct impacts on the enjoyment of human rights, climate change also brought about indirect impacts by diverting resources from crucial public services such as health, education and agrarian support to climate change response and mitigation efforts at the expense of persons who rely upon public services to meet their needs. Discussing food security, Ana Maria Suarez Franco noted that climate change disproportionately affects peasants, indigenous peoples, pastoralists, small farmers and fishermen, who, paradoxically, have contributed to it the least.

Minister Abul Hassan Mahmood Ali called for States to take a human rights perspective and focus on the impacts of climate change on the poorest communitiesand countries. Mithika Mwenda compared the plight of humanity in the face of climate change to that of passengers struggling for survival during the sinking of the Titanic: the weak might suffer and die first but, in the end, everyone would sink. Given this reality, he called for a paradigm shift to address climate change and transition to low-carbon economies in an equitable, fair and ecologically sound manner that permitted continued growth in developing countries. Renan Dalisay also emphasized that climate change takes lives and had a disproportionate impact on the poorest and most marginalized. During the interactive discussion that followed the panel presentations, delegations called for mitigation and adaptation efforts to place people at the centre, be gender sensitive and ensure the rights of persons, groups and people in vulnerable situations, including women, children, indigenous peoples and the poor.

To better understand how climate change impacts the rights of particular groups, it is useful to consider the particular nature of the threat posed to the rights of indigenous peoples, one that was emphasized throughout the panel discussion. The UNDRIP and International Labour Organization Convention 169 articulate specific rights of indigenous peoples. UNDRIP affirms that "indigenous peoples are equal to all other peoples, while recognizing the right of all peoples to be different, to consider themselves different, and to be respected as such." It calls for States to "provide effective mechanisms for prevention of, and redress for" actions which would undermine indigenous peoples' rights including their rights to culture, land and resources, and self-determination.

"Indigenous people[s] are among the most culturally endangered communities."

Victoria Tauli-Corpuz, United Nations Special Rapporteur on the rights of indigenous peoples

During the panel discussion, many speakers warned of the impact of climate change on indigenous peoples' rights. Victoria Tauli-Corpuz stressed that, "indigenous peoples, like many developing countries, are among those who have least contributed to the problem of climate change, but are the ones suffering from the worst impacts." She went on to state that indigenous peoples often lived in and relied on fragile ecosystems, damage to which threatened their homes,

livelihoods and cultural survival. Climate change threatens their rights to self-determination, development, food, water, land and culture, among others. Efforts to prevent, mitigate and adapt to climate change could also threaten their rights. The production of biofuels can lead to land–grabbing, and displacement; and the construction of hydroelectric dams and other renewable energy projects can cause displacement and ecological damage. These activities should not be permitted without the consent of potentially affected indigenous peoples.

Prime Minister Enele Sosene Sopoaga further emphasized the importance of ensuring that people are able to "continue to enjoy and practice their own cultural and traditional practices, and their own traditional ways of life." Panellists also stressed the potential applications of indigenous practices for climate mitigation and adaptation. According to Ms. Tauli-Corpuz, "indigenous peoples' knowledge increases the effectiveness of adaptation measures." Similarly, the IPCC has found that "indigenous, local and traditional knowledge systems and practices, including indigenous peoples' holistic view of community and environment, are a major resource for adapting to climate change."[49] By empowering indigenous peoples and guaranteeing them control over their traditional knowledge, lands, territories and resources, as called for in UNDRIP, States can simultaneously improve climate mitigation and adaptation efforts and the situation of indigenous peoples. According to Hilal Elver, the Special Rapporteur on the right to food, women's and indigenous peoples' knowledge of biodiversity and agro-ecology should inform climate mitigation and adaptation strategies. This will empower and benefit affected persons, guarantee their participation in relevant decision-making processes, and make them part of the climate solution.

The rights of future generations

"Climate justice requires that States look beyond their responsibility to their own people, to accept their responsibility to those living beyond their shores, who are particularly vulnerable to climate change. And also, to the generations to come."

Mary Robinson, President, Mary Robinson Foundation – Climate Justice

The rights of children are protected by the CRC but the rights of future generations (in the sense of generations yet unborn) are not formally recognised in this or other major human rights instruments. Nevertheless, a strong argument in favour of the rights of future generations can be made on the basis of the human rights principle of equity and a number of multi-lateral environmental agreements. The Stockholm Declaration of the United Nations Conference on the Human Environment stated that "defend[ing] and improve[ing] the human environment for present and future generations has become an imperative goal for mankind" and that "man has the fundamental right to freedom, equality and adequate conditions of life, in an environment of a quality that permits a life of dignity and well-being, and he bears a solemn responsibility to protect and improve the environment for present and future generations".[50]

[49] IPCC, *AR5*, p. 19.
[50] United Nations Conference on the Human Environment, *Declaration of the United Nations Conference on the Human Environment* (Stockholm: United Nations, 1972).

General Assembly resolutions 43/53, 44/207, 45/212 and 46/169 call for the protection of the global climate for present and future generations of mankind. The 1992 Rio Declaration on Environment and Development explicitly advanced the rights of future generations when it linked the right to development to the environment and sustainable development. In paragraph 3, the Rio Declaration affirmed that "the right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations." [51] The following year, the Vienna Declaration and Programme of Action included the same language in its paragraph 11. [52] The 2002 Johannesburg Declaration, and the Future We Want, the outcome document of Rio + 20, further affirm the links between the environment, sustainable development and human rights. The principle of equity, including intergenerational equity, is also specifically recognized in the UNFCCC which calls for all parties to "protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities".

During the panel discussions, the concept of intergenerational equity was highlighted by several discussants. President Anote Tong questioned whether or not we could "guarantee" the futures of our grandchildren. He observed that the people in Tuvalu and other SIDS "have to reconcile [themselves] with the reality that [their] islands will be under water, unless we do something very significant and substantial." This possible loss of the land mass of an entire country poses a grave threat to the cultural identity and survival of its people including generations yet unborn who may never know their traditional lands and territories. Flavia Pansieri concurred that those who had contributed the least to greenhouse gas emissions, including the poorest people in the poorest countries and future generations worldwide, would be affected the most and this was a matter of fundamental injustice. Victoria Tauli-Corpuz called for the implementation of the "polluter pays" principle, an environmental law principle from environmental law that requires that those responsible for environmental harms should pay for the damages they cause. She stressed the need for current actions to take into account likely impacts on future generations.

Renan Dalisay urged States and people to come together to agree on a lasting solution to save our children and our children's children from the devastation wrought by the terrible consequences of climate change. Olav Fyske Tveit asserted that we must act now to address climate change, the impacts of which are already a reality and will affect even more, our future generations. Actions taken now will determine whether or not generations to come have access to the most basic elements of life, including food and water. During the interactive dialogues that followed, participants reiterated that the poorest countries and persons, groups and peoples in vulnerable situations that had contributed the least to climate change were likely to suffer its worst impacts. This was particularly true of children and future generations. Discussants agreed that addressing the impacts of climate change on those in vulnerable situations was a matter of justice and fairness that required immediate action.

[51] United Nations Conference on Environment and Development, *Rio Declaration on Environment and Development* (Rio de Janeiro: United Nations, 1992).
[52] World Conference on Human Rights, *Vienna Declaration and Programme of Action* (Vienna: United Nations, 1993).

Part III: Realizing human rights in a warming world

"Time is running out to avoid dangerous climate change. This year, 2015, presents a unique opportunity to set the global community on a new path; away from fossil fuel based development and towards a sustainable alternative that will ensure the protection of the rights of generations to come."

Mary Robinson, President, Mary Robinson Foundation – Climate Justice

In order for States to realise their commitments to safeguard and uphold all human rights for all in the face of challenges posed by climate change and its impacts, they must act collectively and **immediately**. Principle 15 of the Rio Declaration on Environment and Development calls for States to adopt a precautionary approach to environmental harms and act "when there are threats of serious or irreversible damage" even in the absence of full scientific certainty. In the case of climate change there is no uncertainty. Climate change has already done serious damage. The only uncertainty remaining is how much more damage it will cause. Under these circumstances, urgent preventative action is needed. Discussants agreed that immediate, coordinated climate action that effectively mobilizes resources to mitigate and adapt to climate change while protecting the rights of people affected by it is the only viable solution. The need for such action is supported by sound science, including the most recent report of the IPCC, which overwhelmingly confirms that humanity is headed down a dangerous path towards a warmer, more climate volatile, and less secure world.

The panel discussions, the IPCC, and the growing political consensus in favour of urgent climate action, all demonstrate that the time for concrete, effective climate action is now. Since climate change directly contributes to the violation of human rights, States have an affirmative obligation to take measures to mitigate climate change, to prevent negative human rights impacts, and to ensure that all persons, particularly those in vulnerable situations, have adequate capacity to adapt to the growing climate crisis. Integrating human rights obligations in climate actions will improve outcomes by providing concrete measures to protect people from the harms of climate change. There is a growing body of evidence that a human rights-based approach will lead to more sustainable and effective results in climate action.[53] A human rights perspective offers guidance for addressing climate through a broader lens that encompasses the economic, social, cultural and political dimensions of climate change. It can also reduce arbitrariness in climate change programs and objectives, and ensure that climate action benefits those who are most in need. The integration of human rights in climate action will promote significant involvement from UN bodies and mechanisms mandated to promote and protect human rights, and from civil society actors bringing additional resources to confront the challenge of climate change.

In spite of this, concrete efforts at effective climate change mitigation and adaptation measures have been limited. In the course of the panel discussion, President Anote Tong posed the question "how much global effort are we putting into providing concrete, tangible action to help the vulnerable whose security and survival is very much on the line?" The answer so far has been not

[53] *See for example* Caleb Stevens et. al., *Securing Rights Combatting Climate Change: How Strengthening Community Forest Rights Mitigates Climate Change*, Executive Summary (World Resources Institute 2014) available at http://www.wri.org/sites/default/files/securingrights_executive_summary.pdf (last accessed 25 November 2015) (discussing the importance of indigenous and local communities' forest rights for climate mitigation).

enough. In order to address this failure, panellists and participants made several recommendations to help effectively integrate human rights considerations in climate adaptation and mitigation efforts and to spur the urgent action that is so critically needed to prevent climate change from becoming a human rights catastrophe.

Recommendations from the full-day panel discussion on climate change

- Appointment of a Special Rapporteur on human rights and climate change to identify good practices, strengthen accountability mechanisms, engage with the Secretariat of the United Nations Framework Convention on Climate Change and further explore the links between climate change and human rights;
- Thorough integration of human rights obligations, standards and principles in international and national climate policy and action, including COP 21;
- Participation of all relevant stakeholders in the development and implementation of climate change policies and action;
- Mitigation and adaptation efforts that place people at the centre, are gender sensitive, and ensure the rights of persons, groups and peoples in vulnerable situations, including women, children, indigenous peoples and the poor. These could be informed by the use of impact assessments to ensure that climate actions benefit those facing the greatest risks;
- Improved regulation of the private sector in order to mitigate their contributions to climate change and ensure their respect for human rights in all their actions;
- Enhanced cooperation based on principles of equity and fairness to ensure adequate funding and research into adaptation measures to help the poorest countries and those persons, groups and peoples most at risk;
- Intensified research and development into renewable sources of energy and energy conservation to reduce the emissions intensity of growth;
- Equitable access to technology, including, if necessary, the lowering of intellectual property standards and facilitation of technology transfer;
- The creation of a climate justice fund;
- Protecting and utilizing traditional knowledge of local communities and indigenous peoples to support the effective use of resources for agriculture and forestry;
- Titling the lands and territories of indigenous peoples and other communities in order to support preservation of forests and improved carbon storage;
- Utilizing community-based climate monitoring to reduce monitoring costs and enhance early warning systems;
- Improved capacity-building, development assistance, innovative finance and clean development mechanisms;
- Improved communication between climate change negotiators and human rights experts including through increased participation in the Geneva Pledge;
- Consideration by States of the linkages between human rights and climate change during the universal periodic review;
- Increased scrutiny of the impacts of climate change on human rights by Human Rights Council special procedures mandate holders;
- A special session of the Human Rights Council on human rights and climate change; and

- The creation of a legal instrument to protect the rights of climate displaced people

Recommendations from the panel discussion share a common objective of better integrating human rights in climate action with a view to respect, protect, promote, and fulfil all human rights for all. With negotiations of the outcome document of COP21 currently under way, this objective is critical and States have the opportunity to make considerable progress. From a human rights perspective, the new agreement and other efforts to mitigate climate change and adapt to its impacts should specifically address the human rights impacts of climate change and be consistent with existing human rights agreements, obligations, standards and principles.

Annex 481

Report of the Office of the United Nations High Commissioner for Human Rights, Analytical study on the relationship between climate change and the full and effective enjoyment of the rights of the child, A/HRC/35/13, 4 May 2017

United Nations A/HRC/35/13

General Assembly

Distr.: General
4 May 2017

Original: English

Human Rights Council
Thirty-fifth session
6-23 June 2017
Agenda items 2 and 3
Annual report of the United Nations High Commissioner for Human Rights and reports of the Office of the High Commissioner and the Secretary-General

Promotion and protection of all human rights, civil political, economic, social and cultural rights, including the right to development

Analytical study on the relationship between climate change and the full and effective enjoyment of the rights of the child

Report of the Office of the United Nations High Commissioner for Human Rights

Summary

The present analytical study on the relationship between climate change and the full and effective enjoyment of the rights of the child is submitted pursuant to Human Rights Council resolution 32/33. In the study, the Office of the United Nations High Commissioner for Human Rights examines the impacts of climate change on children and the related human rights obligations and responsibilities of States and other actors, including the elements of a child rights-based approach to climate change policies. The study provides examples of good practices and concludes with several recommendations.

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I. Introduction

1. The present study is submitted pursuant to Human Rights Council resolution 32/33, in which the Council requested the Office of the United Nations High Commissioner for Human Rights (OHCHR) to conduct a detailed analytical study, in consultation with relevant stakeholders, on the relationship between climate change and the full and effective enjoyment of the rights of the child.

2. On 9 September 2016, OHCHR circulated a note verbale and questionnaire to Member States requesting inputs for the study. Communications were also sent to other stakeholders, including international organizations, national human rights institutions and civil society. Their inputs were summarized in a conference room paper prepared by OHCHR in advance of the panel discussion on the adverse impact of climate change on States' efforts to realize the rights of the child and related policies, lessons learned and good practices, held on 2 March 2017.[1] The panel discussion, written inputs, consultations and independent research have informed the present study.

3. In the study, OHCHR examines the impacts of climate change on children and the related human rights obligations and responsibilities of States and other actors, including the elements of a child rights-based approach to climate change policies. It provides examples of good practices and concludes with concrete recommendations for fulfilling human rights obligations, particularly those related to children's rights, in the context of climate change.

II. Key impacts of climate change on children

4. Children are disproportionately affected by changes in their environment, due to their unique metabolism, physiology and developmental needs.[2] Changes in temperature, air and water quality and nutrition are likely to have more severe and long-term impacts on children's health, development and well-being. Young children, because of their less developed physiology and immune systems, will experience most intensely the effects of climate change-related stresses.[3] During childhood, alterations to the social and physical environment can have far-reaching implications for children's long-term physical and mental health and overall quality of life.

5. According to United Nations Children's Fund (UNICEF), there may be no greater threat facing the world's children, and future generations, than climate change.[4] In 2014, there were 2.2 billion children in the world, with approximately 30 per cent of the world's population being under 18 years old.[5] Existing and future demographic trends reveal that many of the countries that have been identified as highly vulnerable to climate change also have higher proportions of children in their overall population. These include parts of South Asia, the Pacific islands and other small island developing States, equatorial Africa and the Pacific coast of South America.

6. As discussed below, some of the most substantial impacts of climate change on children are caused by extreme weather and natural disasters, water scarcity and food insecurity, air pollution and vector-borne diseases and resulting psychological trauma. Children in vulnerable situations are disproportionately affected by climate change.

[1] For the summary of the panel discussion, see A/HRC/35/14. The original inputs received and the informal summary of those inputs are available at www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/RightsChild.aspx.

[2] See generally World Health Organization (WHO), *Inheriting a Sustainable World? Atlas on Children's Health and the Environment* (2017), available at www.who.int/ceh/publications/inheriting-a-sustainable-world/en/.

[3] P.J. Landrigan and A. Garg, "Children are not little adults", in *Children's Health and the Environment: A Global Perspective*, J. Pronczuk-Garbino, ed. (Geneva, WHO, 2005).

[4] UNICEF, *Unless We Act Now: The Impact of Climate Change on Children* (New York, 2015), p. 6.

[5] UNICEF, *The State of the World's Children 2014: Every Child Counts* (New York, 2014).

A. Extreme weather and natural disasters

7. Climate change contributes to the increasing frequency and intensity of extreme weather events. Globally, nearly 160 million children have been identified as living in areas of high or extremely high drought severity.[6] More than half a billion children live in zones of extremely high flood occurrence, and approximately 115 million children live in zones of high or extremely high tropical cyclone risk.[7] Even under a medium-low emission scenario, the Intergovernmental Panel on Climate Change predicts a global sea-level rise of 0.53 metres by 2100, with coastal and low-lying areas at risk of submergence, flood damage, erosion and impeded drainage.[8] Floods and other natural disasters caused by extreme weather are likely to elevate mortality and morbidity among children.

8. Young children are more susceptible to injury and death during natural disasters. In the aftermath of the 2010 floods in Pakistan, rates of under-5 mortality in flood-affected areas were notably higher than the national average.[9] Natural disasters can also result in the separation of children from their family unit, increasing their vulnerability to subsequent harm.

9. Climate change is also expected to increase the duration and intensity of heat waves. This will affect children disproportionately, as their bodies adapt at a slower rate to changes in heat and they may suffer from heat rash, heat-related cramps, exhaustion, renal disease, respiratory illness, stroke and death.[10]

10. Extreme weather events can disrupt access to essential educational, health and housing services. For example, children's access to education can be interrupted by damage to educational facilities and critical infrastructure and by the use of schools as emergency shelters.[11] Similarly, damage to health infrastructure and essential drug supplies can make post-emergency interventions less effective. Floods and landslides, sea-level rise and powerful storms can degrade and destroy housing units and water and sanitation infrastructure, worsening living conditions, particularly for children, in unplanned and underserviced settlements.[12]

11. Climate change-related disasters can also disrupt child protection systems and exacerbate pre-existing tensions and conflicts, leaving children susceptible to abuse, child labour, trafficking and other forms of exploitation.[13]

B. Water scarcity and food insecurity

12. Climate change is already affecting water and food supplies, with severe consequences for children in poor communities. Changing patterns of precipitation, sea-level rise and increased evaporation as a result of climate change will reduce surface and

[6] UNICEF, *Unless We Act Now*.

[7] Ibid.

[8] Christopher B. Field and others, eds., *Climate Change 2014: Impacts, Adaptation and Vulnerability*, Working Group II contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (New York, Cambridge University Press, 2014), pp. 368-369.

[9] UNICEF, *Unless We Act Now*, p. 30; see also WHO, "Pakistan floods 2010: early recovery plan for the health sector" (2011), p. 52.

[10] See, for example, Johns Hopkins Medicine, "Heat-related illnesses (heat cramps, heat exhaustion, heat stroke)", available from www.hopkinsmedicine.org/healthlibrary/conditions/pediatrics/heat-related_illnesses_heat_cramps_heat_exhaustion_heat_stroke_90,P01611/.

[11] Katie Harris and Kelly Hawrylyshyn, "Climate extremes and child rights in South Asia: a neglected priority" (Overseas Development Institute, 2012).

[12] See generally A/64/255 on climate change and the right to adequate housing, para. 21 on the disproportionate impacts on children.

[13] Sheridan Bartlett, "Climate change and urban children: impacts and implications for adaptation in low- and middle-income countries", *Environment and Urbanization*, vol. 20, No. 2 (October 2008), pp. 509-510; Global Protection Cluster, "Strengthening protection in natural disaster response: children", available at www.globalprotectioncluster.org/en/tools-and-guidance/essential-protection-guidance-and-tools/protection-in-natural-disasters-essential-guidance-and-tools.html.

groundwater resources in most dry subtropical regions.[14] Droughts are expected to intensify, reducing access to water for personal consumption, agriculture and economic activities. Acidification and increasing water temperatures further threaten the fisheries upon which many coastal communities rely for subsistence.

13. Shortages of safe drinking water and food staples will have disproportionate impacts on children, particularly the poor. Children's consumption needs per body weight are higher than those of adults and food and water scarcity undermines their physical and cognitive growth.[15] Globally, undernutrition is responsible for nearly half of all under-5 deaths and is a major factor exacerbating the frequency and severity of other diseases and infections.[16] Inadequate responses to malnourishment during the first two years of life result in irreversible stunting with lifelong consequences for children's cognitive capacity, school performance and economic productivity.[17] It is estimated that, by 2030, climate change will result in an additional 7.5 million children under the age of 5 who are moderately or severely stunted.[18]

14. Food and water crises pose additional risks, such as increased incidences of school dropout, child labour and domestic violence. Crop and income loss has been linked to significant increases in the level of child labour used for household chores such as fetching water and searching for firewood.[19] When extreme weather affects the security of household incomes and families increase their reliance on child labour, children have less time and energy to dedicate to school activities.

C. Air pollution

15. In 2012, indoor and outdoor air pollution combined were linked to approximately 700,000 deaths among children under 5 years of age.[20] Although air pollution is not caused by climate change, some forms of air pollution cause climate change. Further, climate change can exacerbate some forms of air pollution, for example, by intensifying the toxicity of pollutants, such as ozone, a trigger of childhood asthma.[21] The heightened risk of wildfires associated with heat waves and drought affects air quality and children's respiratory systems, and warmer temperatures are also linked with the release of airborne allergens that can exacerbate asthma and allergic respiratory diseases.[22] Thus, air pollution and climate change contribute to a vicious cycle that disproportionately affects children, who, due to their higher breathing rate, are more susceptible to respiratory problems and infections related to air pollution.[23]

D. Vector-borne and infectious diseases

16. Children are more susceptible than adults to many vector-borne and infectious diseases. Waterborne diseases typically spread in the aftermath of climate change-related floods and storms, especially when water and sanitation infrastructure is damaged. Poor hygiene and consumption of contaminated water can contribute to increased incidence of diarrhoea and cholera, among other illnesses. Diarrhoea is the second leading cause of

[14] Field and others, *Climate Change 2014*, p. 232.
[15] Landrigan and Garg, "Children", pp. 3-4.
[16] UNICEF, "Undernutrition contributes to nearly half of all deaths in children under 5 and is widespread in Asia and Africa", available at https://data.unicef.org/topic/nutrition/malnutrition/.
[17] Cesar G. Victora, and others, "Maternal and child undernutrition: consequences for adult health and human capital", *Lancet*, vol. 371, No. 9609 (2008).
[18] WHO, *Quantitative Risk Assessment of the Effects of Climate Change on Selected Causes of Death, 2030s and 2050s* (Geneva, 2014), p. 80.
[19] Kathleen Beegle, Rajeev H. Dehejia and Roberta Gatti, "Child labor and agricultural shocks", *Journal of Development Economics*, vol. 81, No. 1 (October 2006).
[20] WHO, *Inheriting a Sustainable World?*, p. 16.
[21] UNICEF, *Unless We Act Now*, p. 44.
[22] Field and others, *Climate Change 2014*, p. 729.
[23] Landrigan and Garg, "Children".

mortality in children under 5.[24] By 2030, it is projected that climate change impacts will result in 48,000 additional deaths from diarrhoeal disease in children under 15.[25]

17. Climate change is also likely to expand the seasonal and geographic range of vector-borne diseases, including insect-borne diseases with hosts sensitive to variations in temperature, humidity and precipitation. Malaria is expected to expand into tropical highland regions where the medical and immunological responses of populations may be ill-equipped to cope.[26] Infants and young and poor children living in areas with substandard health facilities are at particular risk. In 2015, roughly 300,000 children under the age of 5 died from malaria;[27] the majority lived on the African continent. Outbreaks of other diseases that affect children, such as dengue, Zika, leptospirosis, viral infections, meningitis, varicella, viral hepatitis, leishmaniasis and pertussis, have been linked to climate change.[28]

E. Impacts on mental health

18. Climate change and the impacts of traumatic stress connected to climate change, such as war/insecurity, sexual and physical violence and witnessing deaths and injury related to extreme weather disasters, negatively affect children's mental health. Children who lose a family member or experience life-threatening situations as a result of the impacts of climate change have a higher chance of experiencing post-traumatic stress, anxiety disorders, suicidal ideation and depression. Disasters can also affect children's cognitive capacity with corresponding impacts on their emotional well-being. For example, children affected by El Niño during early childhood posted lower scores in language development, memory and spatial reasoning than other children of a similar age.[29] Lower cognitive functioning in early life has been shown to increase the risk of future mental health problems.[30]

19. Children may also experience anxiety related to fear of separation from their families and heightened household tensions resulting from the loss of family livelihoods.[31] Children whose families are affected by climate change may be exposed to higher risks of violence, physical abuse, child labour, trafficking and exploitation. Their needs for rest and play may be subordinated to basic survival interests. In cases of displacement, separation from traditional lands and territories, from communities and from family members can have impacts on children's education, cultural identity and access to social support systems. All of these climate impacts have potentially severe mental health repercussions.

F. Disproportionate impacts on children in vulnerable situations

20. According to the Intergovernmental Panel on Climate Change, "people who are socially, economically, culturally, politically, institutionally or otherwise marginalized are especially vulnerable to climate change and also to some adaptation and mitigation responses".[32] The negative impacts of climate change will disproportionately affect poor children, indigenous children, minorities, migrants and other children on the move, children

[24] WHO, "Diarrhoeal disease", Fact sheet No. 330 (2013), available from www.who.int/mediacentre/factsheets/fs330/en/.

[25] WHO, *Quantitative Risk*, p. 44.

[26] UNICEF, *Unless We Act Now*, p. 48.

[27] WHO, "Malaria in children under 5" (2016), available at www.who.int/malaria/areas/high_risk_groups/children/en/.

[28] A/HRC/32/23.

[29] Arturo Aguilar and Marta Vicarelli, "El Niño and Mexican children: medium-term effects of early-life weather shocks on cognitive and health outcomes" (2011).

[30] Chuan Yu Chen and others, "Mild cognitive impairment in early life and mental health problems in adulthood", *American Journal of Public Health*, vol. 96, No. 10 (October 2006).

[31] Agnes A. Babugara, "Vulnerability of children and youth in drought disasters: a case study of Botswana", *Children, Youth and Environments*, vol. 18, No. 1 (2008).

[32] Field and others, *Climate Change 2014*, p. 50.

with disabilities and others in vulnerable situations. Girls also face heightened risks due to climate change. Additionally, disproportionate impacts will be felt by children living in developing countries, particularly those in geographically vulnerable areas, such as riparian and low-lying coastal areas, arid regions, high mountains, polar zones and other delicate ecosystems. The following sections contain illustrative examples of the disproportionate impacts of climate change on girls, indigenous children, children with disabilities and children on the move.

1. Girls and pregnant women

21. Girls are more likely to be pulled from school to perform household chores, such as eldercare, fetching water and cooking, when households are affected by climate change stresses.[33] To counteract the effects of climate change on livelihoods, girls may sometimes be sold into child marriage, trafficked or forced to work, with resulting impacts on their education, health, liberty and security. Evidence also suggests that food insecurity associated with climate change disproportionately affects girls.[34]

22. Situations of crisis can exacerbate gender inequalities, affecting girls more and differently. Gender inequalities have been linked to higher rates of mortality from natural disasters among women and girls.[35] In post-disaster settings, pregnant women, with their distinct needs for maternal health care, food, water, sanitation and hygiene, face unique health risks. Exposure to extreme temperatures, infection with water- and vector-borne diseases and post-disaster emotional distress during pregnancy have been associated with negative impacts on pregnancy outcomes, including miscarriage, premature birth and anaemia.[36] Girls' security and bodily integrity can also be threatened by climate change-related displacement. Evacuation to shelters lacking safe facilities for girls has been documented to heighten risks of all forms of sexual harassment and violence, including human trafficking. This can result in higher rates of forced girl pregnancies and forced marriages.[37]

2. Indigenous children

23. Many indigenous peoples rely upon climate-sensitive ecosystems for livelihoods as well as spiritual and cultural practices. Therefore, they are particularly threatened by the degradation of land, water and biodiversity. For example, the traditional livelihoods of indigenous peoples in the Arctic have been adversely affected by rising temperatures.[38] Many indigenous children live in impoverished communities which affects their capacity for climate adaptation. Indigenous peoples constitute approximately 15 per cent of the world's poor and one third of the 900 million people living in extreme poverty in rural areas.[39] Indigenous children may also be negatively affected by actions taken to mitigate climate change, such as projects related to the production of biofuel or hydroelectric power, which have sometimes resulted in the displacement of entire indigenous communities without their free, prior and informed consent.[40]

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[33] Global Gender and Climate Alliance, *Gender and Climate Change: A Closer Look at Existing Evidenc*e (2016), pp. 17-18.

[34] Ibid., p. 25.

[35] Eric Neumayer and Thomas Plümper, "The gendered nature of natural disasters: the impact of catastrophic events on the gender gap in life expectancy, 1981-2002", *Annals of the Association of American Geographers*, vol. 97, No. 3 (2007).

[36] Global Gender and Climate Alliance, *Gender and Climate Change*, p. 29.

[37] Anita Swarup and others, *Weathering the Storm: Adolescent Girls and Climate Change* (Plan International, 2011), available at www.ungei.org/files/weatherTheStorm.pdf; and Claudia Feltan-Bierman, "Gender and natural disaster: sexualized violence and the tsunami", *Development*, vol. 49, No. 3 (September 2006).

[38] Field and others, *Climate Change 2014*, p. 1583.

[39] Department of Economic and Social Affairs, *State of the World's Indigenous Peoples* (New York, United Nations, 2009), p. 21.

[40] United Nations Environment Programme, *Climate Change and Human Rights* (Nairobi, 2015), pp. 8-9.

3. Children with disabilities

24. The negative impacts of climate change can exacerbate inequities already experienced by children with disabilities. The Convention on the Rights of Persons with Disabilities highlights that the majority of persons with disabilities live in conditions of poverty. Children with disabilities may experience social and economic exclusion, be left out of decision-making processes and have difficulty accessing social services. They are more likely to live in poverty and to experience physical abuse, while at the same time enjoying less access to educational and medical services.[41] These factors can contribute to the disproportionate impact of climate change on children with disabilities. The negative impacts of climate change on children can also lead to an increased risk of health-related disabilities.

25. In emergencies, children with disabilities may suffer higher rates of abuse, neglect and abandonment.[42] Insufficient accessibility considerations in evacuation, response and relief efforts caused by the exclusion of disability issues from disaster planning renders children with disabilities particularly susceptible to injuries and diseases.[43] Barriers to access to food, drinking water and medical relief in the aftermath of disasters can affect health and exacerbate the effects of children's disabilities.[44]

4. Children on the move

26. Climate change is increasingly recognized as a key driver of human movement. In the most extreme cases, all inhabitants of some small island States and low-lying coastal areas may need to be relocated. An estimated 22.5 million people per year for the seven years leading up to 2015 have already been displaced by climate- or weather-related disasters.[45] These disasters are expected to increase in both frequency and intensity with further climate change.

27. When sudden or slow-onset disasters result in large-scale human movement, children may be separated from their cultural heritage and face barriers in access to schools, adequate health-care facilities and other necessary goods and services. Overcrowded shelters with inadequate sanitation and access to clean water can increase the transmission of diarrhoea and malnutrition rates, both leading causes of child mortality.[46] Inadequate security and protection in some shelters can expose children to abuse and violence. Children travelling alone or separated from their parents can be particularly at risk of emotional, physical and sexual violence.[47]

III. Human rights obligations and responsibilities of States and other actors

28. The Convention on the Rights of the Child states that the recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world. Children's rights are inalienable and universal human rights entitlements enshrined in the Convention, which is the most widely ratified human rights instrument in the world. These rights are also reflected in treaties such

[41] UNICEF, *State of the World's Children 2013: Children with Disabilities* (New York, 2013), available at www.unicef.org/sowc2013/files/SWCR2013_ENG_Lo_res_24_Apr_2013.pdf.

[42] A/HRC/31/30.

[43] Global Partnership for Disability and Development and World Bank, "The impact of climate change on people with disabilities" (2009).

[44] WHO, "Disasters, disability and rehabilitation" (2005), available at www.who.int/violence_injury_prevention/other_injury/disaster_disability2.pdf.

[45] Internal Displacement Monitoring Center, *Global Estimates 2015: People Displaced by Disasters*, p. 8 (Geneva, 2015).

[46] UNICEF and WHO, *Diarrhoea: Why Children Are Still Dying and What Can Be Done* (Geneva, 2009), available at http://apps.who.int/iris/bitstream/10665/44174/1/9789241598415_eng.pdf.

[47] UNICEF, *The Challenges of Climate Change: Children on the Front Line* (Innocenti Insight, Florence, 2014), pp. 29-32.

as the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights. All States are obligated to respect, promote, protect and fulfil a set of interrelated and indivisible civil, political, economic, social and cultural rights for all children without discrimination.

29. The impacts of climate change outlined in the preceding section clearly undermine the effective enjoyment of the rights enshrined in the Convention on the Rights of the Child, including the rights to life, survival and development (art. 6), family relations and not to be separated from one's parents against one's will (arts. 9-10), the highest attainable standard of health (art. 24), adequate standard of living (art. 27), education (art. 28), freedom from any form of violence or exploitation (arts. 19, 32 and 34-36), recreation and play (art. 31) and the enjoyment of one's culture (art. 30).[48] The Committee on the Rights of the Child has identified climate change as one of the biggest threats to children's health and has urged States parties to put children's health concerns at the centre of their climate change adaptation and mitigation strategies.[49] It has emphasized that States have a responsibility to protect children from environmental harms.

30. The negative impacts of climate change on children trigger obligations among all duty bearers to take action to protect all children from its actual and foreseeable adverse effects.[50] The importance of children's rights in the context of climate change is explicitly recognized in the Paris Agreement under the United Nations Framework Convention on Climate Change, in which States are called on to respect, promote and consider their respective obligations on, among other things, the rights of the child and intergenerational equity when taking action to address climate change.

31. The core human rights obligations of States and other duty bearers in the context of climate change are outlined in the key messages on human rights and climate change of OHCHR.[51] These obligations require States to take a human rights-based approach to protect those most vulnerable to climate change from its worst impacts. The 2030 Agenda for Sustainable Development, the Paris Agreement, the Sendai Framework for Disaster Risk Reduction 2015-2030 and the Addis Ababa Action Agenda of the Third International Conference on Financing for Development all reaffirm State commitments to a human rights-based approach to development and climate action. A human rights-based approach analyses obligations, inequalities and vulnerabilities and seeks to redress discriminatory practices and unjust distributions of power.[52] A child rights-based approach to climate change mitigation and adaptation builds upon the essential attributes of human rights-based approaches while incorporating the specificities of children's rights, needs and capacities.

32. The Committee on the Rights of the Child has identified four general principles of a child rights-based approach: non-discrimination, the best interests of the child, the child's right to life, survival and development and the child's right to express his or her views.[53] A child rights-based approach to climate change should take into account the following:

(a) As climate policies and programmes are formulated, the main objective should be to fulfil human rights, taking into account the specific risks faced by children, their unique developmental needs, identification of their best interests and incorporation of their views, in accordance with their evolving capacities;

(b) Children's participation in relevant decision-making processes, including those related to climate adaptation and mitigation policies, must be ensured;

[48] See CRC/C/JAM/CO/3-4, para. 50, CRC/C/LCA/CO/2-4, para. 52, CRC/C/TUV/CO/1, paras. 7 and 55.

[49] General comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health, para. 50.

[50] See, for example, A/HRC/32/23 and A/HRC/31/52.

[51] See A/HRC/33/31, annex II.

[52] See http://hrbaportal.org/the-human-rights-based-approach-to-development-cooperation-towards-a-common-understanding-among-un-agencies.

[53] See general comment No. 5 (2003) on general measures of implementation of the Convention, para. 12.

(c) The obligations and responsibilities of duty bearers, such as States and private actors, must be clarified;

(d) Principles and standards derived from international human rights law, especially the Universal Declaration of Human Rights and the core universal human rights treaties, should guide all policies and programming.

33. A child rights-based approach requires States to take urgent action to mitigate climate change by limiting emissions of greenhouse gases in order to prevent to the greatest extent possible their negative human rights impacts on children and future generations. Protection of children's rights requires stopping development of the most carbon-intensive fossil fuels and transitioning to clean, renewable sources of energy. States also must take adaptation measures to protect and fulfil the rights of all children, and indeed all persons, particularly those most endangered by the negative impacts of climate change. All efforts to mitigate and adapt to climate change should be guided by relevant human rights norms, standards and principles, including those related to participation, access to information, transparency, accountability, equity, non-discrimination and equality.

34. In the United Nations Framework Convention on Climate Change and the Paris Agreement under that Convention, States are called on to take action on climate change on the basis of equity and in accordance with their common but differentiated responsibilities, while the Rio Declaration on Environment and Development and the Vienna Declaration and Programme of Action call for the right to development to be fulfilled so as to meet equitably the developmental and environmental needs of present and future generations. These commitments are reaffirmed in the 2030 Agenda for Sustainable Development, in which a just, equitable, tolerant, open and socially inclusive world in which the needs of the most vulnerable are met and development that benefits current and future generations are envisioned.

35. The principle of intergenerational equity underlying these frameworks places a duty on current generations to act as responsible stewards of the planet and ensure the rights of future generations to meet their developmental and environmental needs. This principle has been applied by the Committee on Economic, Social and Cultural Rights, which directed States to adopt comprehensive and integrated strategies and programmes to ensure that there is sufficient and safe water for present and future generations.[54] States also have a moral and ethical obligation to place the needs of today's children and of future generations at the core of climate change policies and actions.

36. The human rights obligations of States require both individual action and international cooperation. States, acting individually and collectively, are obligated to mobilize and allocate the maximum available resources for the progressive realization of economic, social and cultural rights, as well as for the advancement of civil and political rights and the right to development. Equitable climate action requires that the burden of addressing and preventing the adverse effects of climate change is shared, taking into consideration the common but differentiated responsibilities of States. This means that those developed countries that have contributed the most to climate change should cooperate, including through the mobilization of finance and the transfer of technology and knowledge, to strengthen climate mitigation and adaptation capacity in those developing countries that have contributed the least. Particular attention should be paid to protecting children from the adverse effects of climate change.

37. Actors other than States also bear responsibility for climate change harm. The Guiding Principles on Business and Human Rights affirm that States have an obligation to protect human rights from business harm, while private enterprises have a responsibility to respect human rights and do no harm.[55] The Committee on the Rights of the Child has called on States to protect children's rights from harm caused by business enterprises, through the adoption of mandatory requirements for children's rights due diligence by

[54] See general comment No. 15 (2002) on the right to water, para. 28.

[55] See also UNICEF, The Global Compact and Save the Children, *Children's Rights and Business Principles*, available at http://childrenandbusiness.org/.

businesses.[56] States should also ensure children's access to effective redress mechanisms for violations of their rights by businesses, including through the exercise of extraterritorial jurisdiction as appropriate.[57]

38. States are obligated to provide effective and timely remedies for climate change-related harm, including for harm caused by climate mitigation and adaptation projects. Article 2 (3) of the International Covenant on Civil and Political Rights guarantees all persons, including children, the right to an effective remedy for violations of human rights. The Committee on the Rights of the Child stresses that in cases of violations of children's rights, there should be appropriate reparation, including compensation, and, where needed, measures to promote physical and psychological recovery, rehabilitation and reintegration.[58] Article 12 (2) of the Convention on the Rights of the Child establishes that children are to be provided the opportunity to be heard in any judicial or administrative proceedings affecting them, either directly, or through a representative or an appropriate body. Children's special and dependent status, their frequent absence of legal standing, power imbalances and lack of knowledge, including with regard to climate change, can impair their access to remedies. States are obligated to take appropriate steps to empower children and ensure their access to child-sensitive judicial and administrative processes.

39. The Convention on the Rights of the Child recognizes children's rights to seek and impart information and to have access to an education that fosters respect for the environment and the development of relevant life skills and knowledge.[59] Under article 6 of the United Nations Framework Convention on Climate Change, States parties are required to promote and facilitate public access to information on climate change and its effects. A child rights-based approach to climate action requires States to provide adequate, child-accessible and timely information about climate impacts, risks and hazards. States should conduct and disclose environmental and children's rights impact assessments and ensure an adequate education related to environmental issues in order to inform children's participation in climate decision-making. Education and access to information empower children and other actors, such as health professionals and policymakers, to advocate for children's rights.

40. All children are entitled to participate, according to their age and maturity, in all decisions that have a direct and indirect impact upon their well-being. Under article 12 of the Convention on the Rights of the Child, States are required to create an enabling environment where children can freely express their views and have them given due consideration. In the 2030 Agenda for Sustainable Development children, together with young women and men, are recognized as critical agents of change who can channel their infinite capacities for activism into the creation of a better world.[60] Under article 6 of the United Nations Framework Convention on Climate Change, States are directed to promote and facilitate public participation in addressing climate change and its effects and developing adequate responses. A child rights-based approach to climate change requires that children should not be treated as passive victims of events beyond their influence, but rather as agents of change whose preferences and choices are fairly reflected in policy design and implementation. Ensuring children's education and participation as called for in the 2030 Agenda will be critical to fulfilling this objective.

[56] General comment No. 16 (2013) on State obligations regarding the impact of the business sector on children's rights.

[57] Ibid., para. 44.

[58] Committee on the Rights of the Child, general comment No. 5, para. 24.

[59] See articles 13 and 29 and Committee on the Rights of the Child, general comment No. 1 (2001) on the aims of education, para. 9.

[60] General Assembly resolution 70/1, para. 51.

IV. Good practices in promoting children's rights in climate action

41. Some States, civil society organizations and other actors have already taken measures to integrate children's rights in their climate actions. Existing good practices should be used to inform and enhance further national and intergovernmental action on climate change. These may involve, for example, educational policies, disaster risk reduction measures, strategic litigation and engagement by human rights mechanisms.

A. Educational policies

42. Education on environmental stewardship, climate change and disaster risk reduction can prepare children of all ages to better address emerging environmental challenges. Most States that provided inputs for the present study had climate change education programmes and/or strategies to develop climate change and environmental curricula.[61] The United Nations Educational, Scientific and Cultural Organization, through its Climate Change Education for Sustainable Development programme, has been working with national Governments, particularly in African and small island developing States, to integrate climate change into national curricula through innovative approaches.[62]

43. In Italy, collaboration between the ministries for the environment and for education led to the launch of new guidelines for environmental education.[63] Extracurricular projects can also foster children's activism and involvement in climate change policies. In Zambia, UNICEF has supported the Unite4Climate project, a child-led advocacy programme that empowers young people aged 11 to 17 to become climate ambassadors and agents of change within their communities and in global climate negotiations.[64] Some States have established national platforms for young people to voice their concerns and share their ideas about climate change and other issues, for example, the national environment and health platform for young people in Lithuania[65] and the Children's Parliament in Namibia.[66] In Slovenia, the Administration for Civil Protection and Disaster Relief trains young people in disaster response and ensures access to information for all children, including those with disabilities.[67]

B. Disaster risk reduction

44. The incorporation of the principle of the best interests of the child throughout disaster risk reduction, sustainable development and climate change action is key to protecting children's rights in a changing climate. In the Philippines, the Children's Emergency Relief and Protection Act of 2016 provides for specific measures to protect and educate children in the context of emergencies, ensure their participation in relevant decision-making processes and collect better data.[68] In Viet Nam, a law on environmental protection incorporates the principles of the best interests of the child and gender equality in relation to green growth and climate change;[69] the country is also considering a child-

[61] The inputs used for the study are available at www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/RightsChild.aspx.
[62] United Nations Educational, Scientific and Cultural Organization, *Not Just Hot Air: Putting Climate Change Education into Practice* (Paris, 2015).
[63] Input from Italy.
[64] Input from UNICEF and Germany.
[65] Input from Lithuania.
[66] Input from Namibia.
[67] Input from Slovenia.
[68] Input from the Philippines.
[69] Input from UNICEF.

centred programme on disaster risk reduction for 2017-2021 that would focus on capacity-building in mitigating the impacts of recurring weather risks on children.[70]

45. Indonesia has linked its Child Friendly Cities initiative with climate change and disaster risk reduction objectives by piloting a child-centred climate risk assessment method.[71] In its development cooperation policy, Germany has committed to protecting the best interests of the child and has allocated funding for climate change adaptation, resilience and disaster risk reduction projects involving children and young people.[72] At the national level, Slovakia implements the Convention of the Rights of the Child through its national plan of action for children, which is taken into account in climate policies.[73]

C. Litigation

46. While future generations lack clear legal standing under international law, domestic developments highlight ways in which their interests can be protected through climate change policies and litigation. Some national constitutions have included references to future generations in their provisions on environmental rights. Article 33 of the Constitution of the Plurinational State of Bolivia, for example, enshrines the right to a healthy, protected and balanced environment to enable the development of individuals and collectives of present and future generations. While explicitly referencing future generations, as the Plurinational State of Bolivia has done, could provide a basis for climate litigation directly on behalf of those generations, this may not be explicitly necessary to protect their interests. Climate litigation by today's children has the potential to safeguard the interests of the next generations, and a legal basis for such litigation exists in many countries. For example, in Azerbaijan, articles 30 and 38 of the Law on child rights ensure protection and emergency support to children affected by natural disasters, and article 39 of the Constitution guarantees redress for damages caused by environmental impacts.

47. In some countries, children and their representatives have already engaged in environmental litigation. In *Minors Oposa v. Secretary of the Department of Environmental and Natural Resources*, the Supreme Court of the Philippines ruled on behalf of a class representing children that the State had an intergenerational responsibility to maintain a clean environment. In *Gbemre v. Shell Petroleum Nigeria Limited and Others*, a Nigerian court ordered Shell Petroleum to take immediate steps to cease gas flaring, which contributed to respiratory diseases, greenhouse gas emissions and agricultural problems. It found that gas flaring violated the rights to human dignity and life guaranteed in the Nigerian Constitution and the African Charter on Human and Peoples' Rights. In the United States of America, a group of 21 plaintiffs between the ages of 9 and 20 have filed suit against the federal Government alleging that inadequate climate change mitigation measures constitute a violation of their constitutional rights to life, liberty and property, among others.[74] Precedents such as these demonstrate the potential role of the judicial system in protecting children from harmful activities, including those that contribute to climate change.

D. Engagement by human rights mechanisms

48. National human rights institutions, the human rights treaty bodies and the special procedures and universal periodic review of the Human Rights Council can all play a role in protecting children's rights from the impacts of climate change. The Committee on the Elimination of Discrimination against Women, for example, is currently drafting a general

[70] See www.ohchr.org/Documents/Issues/ClimateChange/RightsChild/Update14.3/StatementPanelCCandrightsofthechildHEMHAKimNgoc.pdf.

[71] Input from UNICEF.

[72] Input from Germany.

[73] Input from Slovakia.

[74] *Juliana et al. v. United States of America et al.* See Our Children's Trust (www.ourchildrenstrust.org/us/federal-lawsuit/).

recommendation on gender-related dimensions of disaster risk reduction in a changing climate,[75] while the Committee on the Rights of the Child has issued, on several occasions, concluding observations including observations and recommendations on climate change.[76] In 2015, the Commonwealth Forum of National Human Rights Institutions issued the St. Julian's Declaration on Climate Justice, in which the institutions committed to, inter alia, "promote the principle of equality and non-discrimination in climate action, including the rights of children". The Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, whose forthcoming report will focus on children, and other special procedure mandate holders have focused on the impacts of climate change on human rights in their reporting.[77] Finally, specific recommendations related to climate change and its impacts on the rights of the child have been issued on several occasions in the context of the universal periodic review of the Human Rights Council.[78]

V. Conclusions and recommendations

49. **The conclusions and recommendations below are derived from the various elements that have informed the present study.**

A. Conclusions

50. **The negative impacts of climate change, including the increasing frequency and intensity of natural disasters, changing precipitation patterns, food and water shortages, and the increased transmission of communicable diseases, threaten the enjoyment by children of their rights to health, life, food, water and sanitation, education, housing, culture and development, among others. Climate change heightens existing social and economic inequalities, intensifies poverty and reverses progress towards improvement in children's well-being. All children are exceptionally vulnerable to the negative impacts of climate change, with the youngest children being most at risk.**

51. **Climate change has a disproportionate impact on some children, including children with disabilities, children on the move, poor children, children separated from their families and indigenous children. Girls also face heightened risks due to climate change. In climate-vulnerable States and climate-sensitive areas, climate change poses a contemporaneous threat to inhabitants' rights to life, survival and development, among others. The rights and opportunities of children living in such areas can be severely affected. Beyond threatening children's physical well-being, climate change poses a threat to their cultural identity, to their connections with the natural environment and to their education.**

52. **The human rights obligations and responsibilities contained in the Convention on the Rights of the Child, the Paris Agreement and other international human rights instruments require States and other duty bearers, including businesses, to take action to protect the rights and best interests of children from the adverse effects of climate change. Many States already have in place laws, policies and commitments related to the protection of children's rights, the preservation of a healthy environment and climate change mitigation and adaptation. However, further action is needed to promote accountability for all actors, ensure children's access to justice and protect children from the negative impacts of climate change. Children have a right to meaningful participation in climate policymaking aimed at accomplishing these**

[75] See www.ohchr.org/EN/HRBodies/CEDAW/Pages/DraftGRDisasterRisk.aspx.

[76] See, for example, CRC/C/GBR/CO/5.

[77] See, for example, A/HRC/31/52 and www.thecvf.org/wp-content/uploads/2015/05/humanrightsSRHRE.pdf.

[78] See, for example, A/HRC/33/6 (Samoa, 2016), A/HRC/30/13 and Corr.1 (Marshall Islands, 2015), A/HRC/26/9 (Vanuatu, 2014), A/HRC/24/8 (Tuvalu, 2013) and A/HRC/16/7 (Maldives, 2011).

objectives and should play an active role in inspiring and shaping more effective climate policies.

53. **Human rights, climate change, development and disaster risk reduction, including relevant international instruments and processes, are inextricably linked. A child rights-based approach to climate change mitigation and adaptation is called for by the intersections of these various frameworks with human rights obligations. It requires States to take affirmative measures to respect, protect, promote and fulfil the human rights of all children and to integrate their rights in all climate mitigation and adaptation policies and actions.**

54. **Fundamentally, a child rights-based approach requires:**

(a) **Ambitious mitigation measures to minimize the future negative impacts of climate change on children to the greatest extent possible by limiting warming to no more than 1.5°C above pre-industrial levels, as called for in the Paris Agreement;**

(b) **Adaptation measures that focus on protecting those children most vulnerable to the impacts of climate change;**

(c) **Mitigation and adaptation actions that are the product of participatory, evidence-based decision-making processes that take into account the ideas and best interests of children as expressed by children themselves.**

55. **Within these efforts, particular attention should be paid to girls, children with disabilities, indigenous children and other children who may be disproportionately affected by climate change. All children should be treated as active participants in climate action.**

56. **Truly sustainable, rights-based development requires climate actions that are informed by and take into consideration children's rights, intergenerational equity and the needs of future generations. These actions should be evidence based and supported by a free, transparent exchange of good practices, resources and technical assistance adequate to address the threat of climate change in line with international human rights laws, norms and standards.**

B. Recommendations

57. **A child-rights based approach to climate change requires all relevant actors to take steps to ensure children's rights policy coherence, empower children to participate in climate policymaking, guarantee children access to remedies for climate harm, better understand the impacts of climate change on children and mobilize adequate resources for child rights-based climate action. When pursuing these objectives, the particular needs of those children most vulnerable to climate change and its impacts must be taken into account.**

1. Ensure children's rights policy coherence

58. **States should ensure that children's rights considerations are integrated in their climate, disaster risk reduction and development activities. Efforts should be taken to link actions, positions and processes related to the United Nations Framework Convention on Climate Change, the Human Rights Council, the 2030 Agenda for Sustainable Development and the Sendai Framework for Disaster Risk Reduction 2015-2030 in order to establish a coherent approach to sustainable development that benefits all persons, particularly children. This should include:**

(a) **Implementing the Sustainable Development Goals relating to child poverty and malnutrition, access to education, child mortality and health, and water and sanitation, among others, in such a way as to enhance children's resilience to climate change and reduce inequalities;**

(b) **Integrating children's rights considerations in the implementation of the United Nations Framework Convention on Climate Change, including in the**

transparency framework, in intended nationally determined contributions and other communications and in the work of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts and its taskforce on displacement, in order to promote accountability and more effective climate policies;

(c) **Ensuring that climate adaptation policies improve disaster risk preparedness and enhance the adaptation capacities of all children, taking into account the needs and vulnerabilities of those most at risk. Gender considerations, for example, should be accounted for in climate change and disaster risk management policies, projects and planning processes.**

59. **Human rights mechanisms, including the Committee on the Rights of the Child, should consider ways to hold States accountable for their climate commitments, to better document the impacts of climate change and to promote rights-based climate action. As recommended during the day of general discussion on children's rights and the environment held by the Committee on the Rights of the Child, the issue of the environment could be routinely integrated in concluding observations. Civil society inputs to the Committee review process should address climate change and its impacts on children's rights and draw attention to the adequacy of States' individual contributions to efforts to limit climate change to 1.5°C above pre-industrial levels, as well as the impacts of climate actions. Similarly, States should use the universal periodic review mechanism of the Human Rights Council to promote accountability for climate and human rights commitments.**

2. Empower children to participate in climate policymaking

60. **All children, without discrimination, should be prepared for and included in climate decision-making in order to ensure that their best interests are protected. Children's involvement in the design and implementation of climate policies and climate vulnerability assessments should be facilitated according to their age and maturity.**[79] **Consultative mechanisms, improved dissemination of information and other strategies to engage children are needed for their meaningful participation. States should facilitate the participation of children in ongoing processes related to the United Nations Framework Convention on Climate Change that are likely to affect their development and survival.**

61. **Climate change education can empower educators, parents and children as agents of change. Educational curricula should transfer knowledge and develop skills that will equip children to confront climate-related challenges taking into account each child's particular local context and, as appropriate, traditional knowledge. Climate education should, inter alia:**

(a) **Raise awareness about appropriate lifestyle choices for sustainable development, such as low-carbon transportation, energy and consumption behaviours;**[80]

(b) **Emphasize solidarity, promote cooperation with children from other countries and create opportunities for children's participation in environmental decision-making;**[81]

(c) **Include access to up-to-date, meaningful and age-appropriate information about the causes of climate change, its impacts and adaptive responses, including disaster risk reduction and emergency preparedness.**

[79] For example, the inclusion of girls as participants in the design, planning and implementation of climate strategies will lead to more effective policy formation. See, for example, United Nations Entity for Gender Equality and the Empowerment of Women (UN-Women) and Mary Robinson Foundation — Climate Justice, *The Full View: Ensuring a Comprehensive Approach to Achieve the Goal of Gender Balance in the UNFCCC Process*, 2nd ed. (2016), available at www.mrfcj.org/wp-content/uploads/2016/11/MRFCJ-Full-View-Second-Edition.pdf.

[80] See, for example, target 4.7 of the Sustainable Development Goals.

[81] See, for example, Committee on the Rights of the Child, general comment No. 1, paras. 9 and 13.

3. Guarantee children access to remedies

62. **States and other responsible actors should take measures to ensure that children have access to effective remedies when they suffer harm from climate action and inaction. Such measures could include:**

(a) **Integrating the right to a healthy environment and the rights of future generations in national constitutions and legislation in order to promote the justiciability of those rights and strengthen accountability systems;**

(b) **Ratifying the Optional Protocol to the Convention on the Rights of the Child on a communications procedure, which established a complaints procedure for violations of children's rights;**

(c) **Employing extraterritorial jurisdiction and taking other measures, as appropriate, to ensure responsible conduct by businesses not only in emissions reductions but also in remedying past harm;**

(d) **Developing a loss and damage system that ensures effective remedies for climate-related human rights harm, particularly that experienced by children;**

(e) **Ensuring that climate mitigation and adaptation projects provide access to effective redress mechanisms for human rights harm.**

4. Better understand the impacts of climate change on children

63. **In order to better protect children from the impacts of climate change, all actors should support improved understanding of the relationship between climate change and children's rights. This could be promoted through measures such as:**

(a) **Disaggregated data collection;**

(b) **Impact assessments with respect to children's rights and future generations;**

(c) **Enhanced intersectoral cooperation, as called for in the Geneva Pledge for Human Rights in Climate Action;**

(d) **Establishment of standing consultative committees that include children's perspectives;**

(e) **Improved reporting on children's rights and climate change to relevant United Nations Framework Convention on Climate Change and human rights mechanisms.**

64. **In this regard, civil society actors and participants at the 2010 Social Forum have called for the appointment of a United Nations special rapporteur on human rights and climate change.**[82]

5. Mobilize adequate resources for child rights-based climate action

65. **States, keeping in mind their human rights obligations and their common but differentiated responsibilities and respective capabilities, should take measures to mobilize adequate resources for effective climate action that does not harm but rather benefits children. States should ensure transparent, participatory and informed decision-making in the allocation of resources, including by conducting impact assessments with respect to children's rights and future generations. Further, measures should be taken to improve international cooperation and build capacity for climate action in developing countries through the transfer of technology and the sharing of technical expertise. Mitigation must be a top priority, as it is the key to minimizing the negative impacts of climate change. In these efforts, businesses also have human rights responsibilities, which must not be neglected.**

66. **With regard to climate adaptation, resources should be directed towards efforts to promote non-discriminatory access to basic necessities and services for children in**

[82] A/HRC/16/62.

the light of the adverse effects of climate change. Investments in education and related infrastructure are a rights-based, cost-effective and sustainable method of empowering children. Health, water and sanitation, housing infrastructure and related services are also critical to children's adaptation and resilience. Disaster risk reduction, including training for teachers, parents and children, and climate-resilient schools and infrastructure, is another key area for investment. In the aftermath of climate-related disasters, resources should be devoted to ensure children's access to health services, to reunite children with their families and to not only protect them with physical support, such as food and clean water, but also to provide psychosocial care to prevent or address fear and traumas.[83] **Support should take into account children's distinct needs for play and safety.**

[83] See Committee on the Rights of the Child, general comment No. 15, para. 40.

Annex 482

Statement of the Committee on Economic, Social and Cultural Rights, E/C.12/2018/1, 31 October 2018

United Nations E/C.12/2018/1*

Economic and Social Council

Distr.: General
31 October 2018

Original: English

Committee on Economic, Social and Cultural Rights

Climate change and the International Covenant on Economic, Social and Cultural Rights

Statement by the Committee on Economic, Social and Cultural Rights**

I. Introduction

1. The Committee on Economic, Social and Cultural Rights welcomes the special report of the Intergovernmental Panel on Climate Change on the impacts of global warming of 1.5°C above pre-industrial levels, which was published on 8 October 2018. The report further demonstrates that climate change constitutes a massive threat to the enjoyment of economic, social and cultural rights.

2. In 1992, when they adopted the United Nations Framework Convention on Climate Change, States agreed that they would seek to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system (art. 2). In December 2015, reference was made in the Paris Agreement to the global goal of holding the increase in the global average temperature to well below 2°C, while also committing its parties to pursue efforts to limit the temperature increase to 1.5°C (art. 2). In the report published on 8 October, the Intergovernmental Panel shows that complying with this limit is imperative.

3. The Committee welcomes the pledges already made. Quite apart from such voluntary commitments made under the climate change regime, however, all States have human rights obligations, which should guide them in the design and implementation of measures to address climate change.

II. Human rights implications of climate change

4. The impacts of climate change on a range of rights guaranteed under the International Covenant on Economic, Social and Cultural Rights have been amply documented (A/HRC/32/23). Climate change already affects, in particular, the rights to health, food, water and sanitation; and it will do so at an increasing pace in the future. Projected increases in average seasonal temperatures and the frequency and intensity of heatwaves will contribute to an increase in heat-related deaths. Compared with a future without climate change, this is anticipated to result in nearly 38,000 additional deaths annually as of 2030 and nearly

* Reissued for technical reasons on 9 November 2018.

** The present statement, which was adopted by the Committee at its sixty-fourth session, held from 24 September to 12 October 2018, was prepared pursuant to the Committee's practice on the adoption of statements (see *Official Records of the Economic and Social Council, 2011, Supplement No. 2* (E/2011/22), chap. II, sect. K).

100,000 additional deaths annually as of 2050, with the largest impacts to be felt in South-East Asia. Climate change also affects nutrition through changes in crop yields, loss of livelihoods, increases in poverty, and reduced access to food, water and sanitation. Disrupted supplies of water and high temperatures stress crops and promote algal blooms in reservoirs, while rising ocean acidification affects fisheries. Indeed, according to the World Bank,[1] a 2ºC increase in the average global temperature would put between 100 million and 400 million more persons at risk of hunger and could result in more than 3 million additional deaths from malnutrition each year. In 2014, the World Health Organization estimated approximately 95,000 additional deaths a year on account of undernutrition of children aged 5 years or less by 2030. The right to housing will also be affected. Both sea-level rise and extreme weather events, such as hurricanes and floods, will impact human settlements, especially in urban and coastal areas in which there is a higher density of human settlements, and especially for those already in vulnerable situations. Indigenous peoples and communities dependent on natural resources for their livelihoods are, and will be, particularly hit.

III. Human rights duties of States

5. Under the Covenant, States parties are required to respect, protect and fulfil all human rights for all. They owe such duties not only to their own populations, but also to populations outside their territories, in accordance with articles 55 and 56 of the Charter of the United Nations.[2] In so doing, they should act on the basis of the best scientific evidence available and in accordance with the Covenant.

6. This Committee has already noted that a failure to prevent foreseeable harm to human rights caused by climate change, or a failure to mobilize the maximum available resources in an effort to do so, could constitute a breach of this obligation.[3] The nationally determined contributions that have been announced so far are insufficient to meet what scientists tell us is required to avoid the most severe impacts of climate change. In order to act consistently with their human rights obligations, those contributions should be revised to better reflect the "highest possible ambition" referred to in the Paris Agreement (art. 4 (3)). The future implementation guidelines of the Agreement should require States to take into account their human rights duties in the design of their nationally determined contributions. This implies acting in accordance with the principles of gender sensitivity, participation, transparency and accountability; and building on local and traditional knowledge.

7. Moreover, States parties should adopt measures to adapt to the negative consequences of climate change, and integrate such measures within existing social, environmental and budgetary policies at national level. Finally, as part of their duties of international assistance and cooperation for the realization of human rights, high-income States should also support adaptation efforts, particularly in developing countries, by facilitating the transfer of green technologies, and by contributing to the Green Climate Fund. This would be consistent with the requirement under the Covenant that States ensure the right of everyone to enjoy the benefits of scientific progress, and with the Covenant's acknowledgement of the benefits to be derived from the encouragement and development of international contacts and cooperation in the scientific field (art. 15 (1) (b) and (4)).

IV. Contribution of human rights mechanisms

8. In some countries, courts and other human rights mechanisms, including national human rights institutions, have taken an active role in ensuring that States comply with their duties under existing human rights instruments to combat climate change. In particular, courts have accepted to hear claims filed by victims of climate change or by non-governmental

[1] World Bank, *World Development Report 2010: Development and Climate Change* (Washington, D.C., 2010).

[2] General comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social and Cultural Rights in the context of business activities, para. 27.

[3] See, for example, E/C.12/FIN/CO/6, para. 9; E/C.12/CAN/CO/6, para. 53; and E/C.12/RUS/CO/6, para. 42.

organizations, and ordered States to adopt action plans reasonably tailored to the urgent need to mitigate climate change and, where necessary, to adapt to its unavoidable impacts.

9. The Committee welcomes this development. Human rights mechanisms have an essential role to play in protecting human rights by ensuring that States avoid taking measures that could accelerate climate change, and that they dedicate the maximum available resources to the adoption of measures that could mitigate climate change. Such measures include accelerating the shift to renewable sources of energy, such as wind or solar; slowing down deforestation and moving to agroecological farming allowing soils to function as carbon sinks; improving the insulation of buildings; and investing in public transport. A fundamental shift from hydrocarbon to renewable energy sources in the global energy order is urgently required, in order to avoid dangerous anthropogenic interference with the climate system and the significant human rights violations that such interference would cause.

10. Complying with human rights obligations in the context of climate change is a duty of both State and non-State actors. This requires respecting human rights, by refraining from the adoption of measures that could worsen climate change; protecting human rights, by effectively regulating private actors to ensure that their actions do not worsen climate change; and fulfilling human rights, by adopting policies that can channel modes of production and consumption towards a more environmentally sustainable pathway. Corporate entities are expected to respect Covenant rights regardless of whether national laws exist or are fully enforced in practice (see general comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social and Cultural Rights in the context of business activities, para. 5). Courts and other human rights mechanisms should ensure that business activities are appropriately regulated to ensure that they support, rather than undermine, the efforts of States to combat climate change.

V. Role of the Committee

11. In its future work, the Committee will continue to keep under review the impacts of climate change on economic, social and cultural rights, and provide guidance to States on how they can discharge their duties under the Covenant in the mitigation of climate change and adaptation to its unavoidable effects.

Annex 483

Report of the Special Rapporteur, Issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, A/HRC/40/55, 8 January 2019

United Nations A/HRC/40/55

General Assembly

Distr.: General
8 January 2019

Original: English

Human Rights Council
Fortieth session
25 February–22 March 2019
Agenda item 3
Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development

Issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment

Report of the Special Rapporteur

Summary

In the present report, the Special Rapporteur recalls that the right to a healthy environment has been recognized by a majority of States in their constitutions, legislation, and various regional treaties to which they are parties. However, in spite of the wide recognition of its crucial importance, the right to a healthy environment has not yet been recognized as such at the global level. The Special Rapporteur focuses on the right to breathe clean air as one of its component and describes the negative impact of air pollution on the enjoyment of many human rights, in particular the right to life and the right to health, in particular by vulnerable groups. He highlights the different State obligations in relation to the right to breathe clean air, which are both procedural and substantive, as well as the specific obligation to protect people and groups in vulnerable situations. He identifies several good practices implemented worldwide that have helped to improve air quality. Finally, the Special Rapporteur offers a number of recommendations to States for actions they should consider as part of a national air quality action plan and urges businesses, in order to fulfil their responsibility in this regard, to contribute to and support efforts to reduce air pollution.

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I. Introduction

1. In its resolution 19/10, the Human Rights Council recognized that the human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment required clarification. The Council appointed John H. Knox as Independent Expert to study the obligations and to identify related best practices. The Independent Expert prepared two reports for the Council, mapping the statements of human rights bodies on human rights obligations relating to the environment (A/HRC/25/53) and describing more than 100 good practices in fulfilling the obligations (A/HRC/28/61).

2. In its resolution 28/11, the Council extended the mandate of the mandate holder as Special Rapporteur. Mr. Knox produced thematic reports addressing human rights obligations related to climate change (A/HRC/31/52), biodiversity (A/HRC/34/49) and children's rights and the environment (A/HRC/37/58). In 2018, he presented to the Council framework principles on human rights and the environment (A/HRC/37/59, annex), the main human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment.

3. In its resolution 37/8, the Council renewed the mandate for a further three years. David R. Boyd was appointed as the new Special Rapporteur on 1 August 2018.

4. On 25 October 2018, Mr. Boyd presented his thematic report on the global recognition of the right to a safe, clean, healthy and sustainable environment (A/73/188) to the General Assembly, written jointly with Mr. Knox. He organized an expert consultation on human rights and environmental challenges in New York on 22 and 23 October 2018, in cooperation with SwedBio, Terre des hommes and the United Nations Environment Programme (UNEP). The Special Rapporteur participated in the First Global Conference on Air Pollution and Health, convened by the World Health Organization (WHO) in Geneva from 30 October to 1 November 2018. From 7 to 18 December 2018, the Special Rapporteur undertook a country visit to Fiji. A separate report will highlight his findings and recommendations.

5. To prepare the present report, the Special Rapporteur organized a public consultation with States, international organizations and other relevant stakeholders in Geneva on 29 October 2018. He also held a consultation with civil society representatives on 31 October 2018. These consultations complemented the call for inputs on air pollution and human rights circulated to all Member States on 27 September 2018, as well as to civil society organizations, private actors and academics.

6. In its resolution 37/8 the Council noted that more than 100 States had recognized some form of a right to a healthy environment in, inter alia, international agreements, their constitutions, legislation or policies. The Special Rapporteur would like to clarify the extent to which States are clearly obligated to respect, protect and fulfil the right to a healthy environment because of binding international treaties, constitutions and national environmental legislation. All of the following information is current as of 1 December 2018.

7. The African Charter on Human and Peoples' Rights of 1981 provides that "all peoples shall have the right to a general satisfactory environment favourable to their development" (art. 24). There are 53 States parties to the African Charter.

8. The 1988 Additional Protocol to the American Convention on Human Rights in the Area of Economic, Social and Cultural Rights (Protocol of San Salvador) states that "everyone shall have the right to live in a healthy environment" (art. 11 (1)). There are 16 States parties to the Protocol of San Salvador.

9. The Arab Charter on Human Rights of 2004 includes the right to a healthy environment as part of the right to an adequate standard of living that ensures well-being and a decent life (art. 38). There are 13 States parties to the Arab Charter.

10. The 1998 Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus Convention) refers to "the

right of every person of present and future generations to live in an environment adequate to his or her health and well-being" (art. 1). There are 46 States parties to the Aarhus Convention (plus the European Union).

11. In total, 124 States are parties to legally binding international treaties that explicitly include the right to a healthy environment.[1]

12. In September 2018, the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement) opened for signature. The agreement requires that "each Party shall guarantee the right of every person to live in a healthy environment" (art. 4). Sixteen States have signed the Escazú Agreement, but it is not yet in force. The Human Rights Declaration adopted by the 10 States in the Association of Southeast Asian Nations in 2012 incorporates the "right to a safe, clean and sustainable environment" as an element of the right to an adequate standard of living (para. 28 (f)), but is not legally binding.

13. There are 100 States whose constitutions explicitly incorporate the right to a healthy environment, using a variety of phrases used to describe this right. For example, the Constitution of Costa Rica states: "All persons have the right to a healthy and ecologically balanced environment" (art. 50). The Constitution of Fiji states: "Every person has the right to a clean and healthy environment, which includes the right to have the natural world protected for the benefit of present and future generations through legislative and other measures" (art. 40 (1)).

14. There are at least 12 additional countries where courts have ruled that the right to a healthy environment is an essential element of the right to life (e.g. India, Ireland, Nigeria and Pakistan) and therefore is an enforceable, constitutionally protected right.[2]

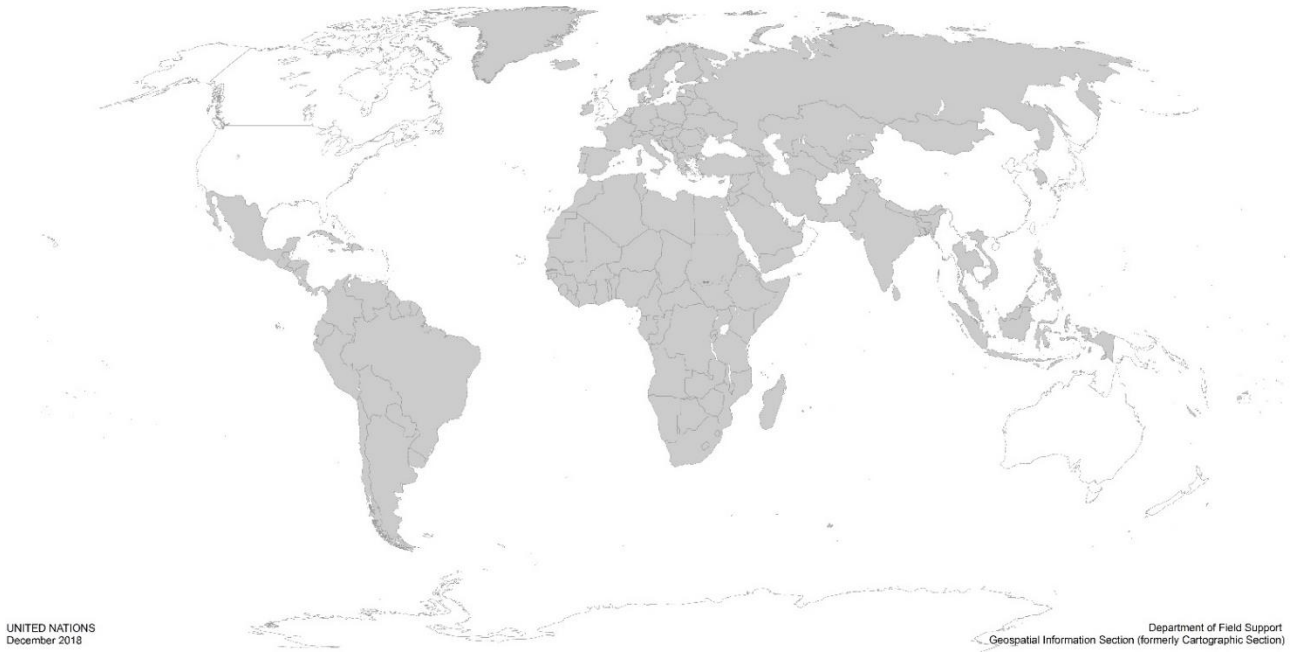
15. There are more than 100 States where the right to a healthy environment is explicitly incorporated in national environmental legislation.

16. In total, at least 155 States are legally obligated, through treaties, constitutions, and legislation, to respect, protect, and fulfil the right to a healthy environment. This provides a compelling basis for the United Nations to move expeditiously to provide global recognition of the right to a healthy and sustainable environment, as recommended by both the previous and current Special Rapporteurs on human rights and the environment.

[1] The total number of parties to the African Charter, the Aarhus Convention, the Protocol of San Salvador and the Arab Charter is 128. (The United Kingdom of Great Britain and Northern Ireland has made a reservation to the Aarhus Convention; the State of Palestine has the status of "non-member observer State" at the United Nations; and Algeria and Libya are parties to both the Arab Charter and the African Charter, bringing the total to 124.)

[2] D.R. Boyd, "The implicit constitutional right to a healthy environment", *Review of European Community and International Environmental Law*, vol. 20, No. 2 (July 2011) pp. 171–179.

Right to a healthy environment



States in grey recognize the right to a heathy environment in their constitutions, legislation, as parties to a regional treaty, or a combination of these instruments.

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. The final boundary between the Republic of the Sudan and the Republic of South Sudan has not yet been determined.

Right to breathe clean air

17. The remainder of the present report examines the human rights obligations relating to the right to breathe clean air, which is one of the vital elements of the right to a healthy and sustainable environment, along with access to clean water and adequate sanitation, healthy and sustainable food, a safe climate, and healthy biodiversity and ecosystems. The report draws on information provided in more than 30 submissions received in response to a call for inputs from States, civil society organizations, private actors and academic as well as statements and reports by international organizations, human rights treaty bodies, special procedures and other sources.

II. Adverse impacts of poor air quality

A. Ambient and household air pollution

18. Air quality is degraded by both ambient and household air pollution. Ambient air pollution is caused by electricity generation (from burning fossil fuels or biomass), industrial processes (e.g. oil refining, brick and cement manufacturing), mining, agricultural practices (e.g. burning crop residues or to clear land), poor waste management (e.g. open burning of garbage) and transportation (land, water, air). Civil society organizations raised concerns about open burning of waste in Lebanon, bauxite mining in Guinea and coal mining in Mozambique. Small-scale businesses in the informal economy can cumulatively produce large volumes of air pollution. Natural factors, such as wildfires and dust storms, also can contribute to ambient air pollution. Household air pollution is generated by the use

of solid fuels (e.g. wood, dung, crop residues, coal) for cooking and heating within the home, as well as by burning kerosene for lighting.

19. The primary sources of air pollution vary between and within States. The relative importance of ambient and household air pollution varies depending on the level of wealth and availability of resources. There are significant interactions between the two categories of air pollution, as burning solid fuels indoors pollutes outdoor air. For example, in India, more than 25 per cent of ambient air pollution is from household sources.[3] The adverse health effects of air pollution are highest in low- and middle-income countries where exposures to both ambient and household air pollution are high.

20. Thousands of chemicals can have negative impacts on air quality. The substances that have been the primary focus of abatement efforts to date because of their known adverse health effects are particulate matter (PM), sulphur dioxide, nitrogen oxides, carbon monoxide, ozone and lead. Among the many other air pollutants of concern are benzene, polycyclic aromatic hydrocarbons, dioxins and furans, and mercury.

21. A group of pollutants that must be targeted with great urgency because of their substantial negative impacts on climate change and air quality are called short-lived climate pollutants and include black carbon, methane and tropospheric ozone.

22. Fulfilling the right to breathe clean air will require action at the household, local, national, regional and international levels. In some States, a significant portion of ambient air pollution is transboundary, meaning the source originates in another country or countries. Prominent examples include sand dust from the Sahara and Gobi deserts, haze from agricultural burning in South-East Asia and forest fires.

B. Impacts on human health

23. Exposure to air pollution causes a wide range of health effects including respiratory illness and infections, heart disease, stroke, lung cancer and negative birth outcomes (e.g. pre-term birth and low birth weight). A growing body of evidence links air pollution to other health problems including cataracts, ear infections, the onset of asthma in children, chronic deficits in lung function, stunting, diabetes, childhood obesity, developmental delays, reduced intelligence and neurological disorders afflicting both children and adults.[4]

24. Fine particulate air pollution is the single largest environmental risk to health worldwide. Consisting of tiny particles that are breathed into the lungs and then pass into the bloodstream, fine particulate matter contains a toxic mixture of soot, black carbon, sulphates, nitrates and heavy metals, varying from place to place depending on the sources.[5]

25. More than 90 per cent of the world's population lives in regions that exceed WHO guidelines for healthy ambient air quality, specifically with respect to fine particulate matter, or $PM_{2.5}$. In other words, over 6 billion people − including 2 billion children − are breathing air that has adverse consequences for their health and well-being.[6]

26. Together, ambient and household air pollution contribute to 7 million premature deaths annually, including the deaths of approximately 600,000 children.[7] This staggering death toll includes more than 2 million people in South and South-East Asia, more than 2 million people in the Western Pacific region (including China), almost 1 million people in Africa, more than half a million in Europe, almost half a million in the Eastern Mediterranean and more than 300,000 in the Americas. Emerging evidence about air

[3] World Health Organization (WHO), *Burning Opportunity: Clean Household Energy for Health, Sustainable Development, and Wellbeing of Women and Children* (Geneva, 2016).
[4] WHO, *Inheriting a Sustainable World? Atlas on Children's Health and the Environment* (2017).
[5] WHO, "Ambient (outdoor) air quality and health", fact sheet, May 2018.
[6] WHO, *Air Pollution and Child Health: Prescribing Clean Air*, advance copy, 2018.
[7] WHO, "Burden of disease from the joint effects of household and ambient air pollution for 2016", May 2018.

pollution and health indicates these may be underestimates.[8] Dependence on solid fuels, kerosene and polluting cookstoves causes more premature deaths than HIV/AIDS, malaria and tuberculosis combined.[9]

27. In addition, poor air quality inflicts extensive harm on workers every year, an issue that was covered in depth in a recent report by the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes (A/HRC/39/48 and Corr.1), and thus will not be further covered in the present report.

28. Hundreds of millions of people suffer from illnesses caused by poor air quality. Non-communicable diseases such as stroke, heart disease, chronic obstructive pulmonary disease and cancer have surpassed infectious diseases as the leading causes of death in the world. Air pollution is one of the five leading risk factors for non-communicable diseases globally.

29. Approximately 3 billion people continue to be exposed to household air pollution caused by burning solid fuels for cooking and heating. This includes people in Africa, South and South-East Asia and Latin America. Almost 1 billion people still rely on kerosene lamps and other polluting devices to light their homes. In poorly ventilated dwellings, levels of particulate matter can be more than 100 times acceptable levels.[10] The result is millions of preventable deaths caused by people breathing polluted air in the supposed safety of their own homes.

30. A study published in 2016 by the World Bank estimated that the global costs of air pollution exceed $5 trillion per year.[11] Unless effective solutions are implemented immediately, the shocking statistics in the present report could grow even worse, as mortality caused by air pollution could increase by 50−100 per cent by 2050.[12]

C. Impacts on vulnerable populations

31. Air pollution affects everyone, causing widespread violations of the right to breathe clean air. Yet the burden of related disease has a disproportionate impact on certain vulnerable populations. Among the most severely harmed are women, children, the elderly, minorities, indigenous peoples and members of traditional communities, people living in poverty, people with pre-existing health conditions such as respiratory conditions or heart disease and people who fall into several of these categories.

32. Women can be vulnerable to air pollution in particular situations. In States where household air pollution is prevalent, women suffer the highest levels of exposure because of their primary role in cooking. Women and girls often spend many hours each week gathering fuel for cooking and heating, which deprives them of educational and economic opportunities and raises the risks of injury and violence.[13]

33. Children are uniquely vulnerable to the adverse impacts of poor air quality due to physiological, behavioural and environmental factors.[14] Their developing brains and bodies are exquisitely sensitive to toxic substances and they have longer life expectancy, so that

[8] R. Burnett and others, "Global estimates of mortality associated with long-term exposure to outdoor fine particulate matter", *Proceedings of the National Academy of Sciences*, vol. 115, No. 38 (18 September 2018), pp. 9592–597.

[9] World Bank, *The State of the Global Clean and Improved Cooking Sector*, Energy Sector Management Assistance Program Technical Report 007/15 (Washington, D.C., 2015).

[10] WHO, *Burning Opportunity*.

[11] World Bank and Institute for Health Metrics and Evaluation, *The Cost of Air Pollution: Strengthening the Economic Case for Action* (Washington, D.C., 2016).

[12] Organization for Economic Cooperation and Development, *OECD Environmental Outlook to 2050: The Consequences of Inaction* (Paris, 2012), pp. 275–278.

[13] WHO, *Burning Opportunity*.

[14] United Nations Children's Fund (UNICEF), *Clear the Air for Children: The Impact of Air Pollution on Children* (New York, 2016); WHO, *Don't Pollute My Future! The Impact of the Environment on Children's Health* (2017).

childhood exposure can have lifelong health consequences. Air pollution is the leading risk factor for acute lower respiratory tract infections (e.g. pneumonia) in children under 5.[15]

34. The elderly in low- and middle-income countries are hit hard by air pollution. Of the total number of healthy years of life lost (disability adjusted life years, or DALY) due to air pollution, one quarter are lost by those over 70 years old. This problem is worsening as the global population ages.

35. Air pollution disproportionately harms poor people and poor communities. The overwhelming majority of illnesses and premature deaths caused by air pollution affect people in low- and middle-income countries. Poverty forces people to use polluting fuels and devices for cooking. Major sources of ambient air pollution, including power plants, factories, incinerators and busy roads, are often located in poor communities. Air pollution plagues low-quality housing, informal or temporary settlements and refugee camps. Poverty also exacerbates the impacts of air pollution through lack of access to information, health care and other resources.

36. As well as environmental injustices within nations, there are widening disparities in air quality between nations. Since 1990, wealthy, less-polluted countries (e.g. Japan, the United States of America and members of the European Union) have seen improvements in air quality while air quality has worsened in some heavily polluted countries (e.g. Bangladesh, India and Pakistan). A recent study estimated that 22 per cent of premature deaths caused by air pollution were linked to international trade, i.e. production of goods destined for export from low- and middle-income nations to wealthy nations.[16] For example, air pollution caused by producing goods for consumption in Western Europe and the United States is linked to over 100,000 premature deaths annually in China.

D. Impacts on agriculture, biodiversity and ecosystems

37. Some air pollutants have damaging impacts on agricultural productivity. It is estimated that 79−121 million tonnes of crops are lost annually due to ground-level ozone, leading to potential violations of the right to food.[17]

38. Air pollution has negative impacts on biological diversity and ecosystems. Various air pollutants cause or contribute to acidification of lakes, eutrophication of estuaries and coastal waters and mercury bioaccumulation in aquatic food webs. Terrestrial ecosystems are also damaged by air pollutants, including forests, grasslands and soils. For example, acid rain damages forests. Exposure to ozone lowers the rate of photosynthesis in many plants. Wildlife, from birds to amphibians, also are harmed by air pollution.

E. Relationship between air pollution and climate change

39. Greenhouse gas emissions are also a form of air pollution. As the previous mandate holder explained, States have obligations under human rights law to reduce their emissions of greenhouse gases and take steps to adapt to climate change (A/HRC/31/52). States are falling far short of the goals they need to meet to avoid catastrophic consequences.[18]

40. To a significant extent, many of the same activities that harm air quality also contribute to climate change (A/HRC/32/23, para. 14). This includes combustion in the electricity, industrial, transportation and waste sectors, livestock production and the use of solid fuels for cooking and heating.

[15] WHO, *Air Pollution and Child Health*.

[16] Q. Zhang and others, "Transboundary health impacts of transported global air pollution and international trade", *Nature*, vol. 543, No. 7647 (30 March 2017), pp. 705–709.

[17] F. Sun, D. Yun and X. Yu, "Air pollution, food production and food security: a review from the perspective of food system", *Journal of Integrative Agriculture*, vol. 16., No. 12 (December 2017), pp. 2945–2962.

[18] United Nations Environment Programme (UNEP), *Emissions Gap Report 2018* (Nairobi, 2018).

41. Black carbon is formed by incomplete combustion of fossil fuels, biofuels and biomass. It is a significant source of particulate matter and also contributes to climate change. In addition, when deposited on snow and ice (e.g. snowfields and glaciers), black carbon accelerates melting, contributing to natural disasters and water insecurity. This is a significant problem in mountain regions, such as the Andes and the Himalayas.

42. The overlap between air pollution and climate change has a silver lining. Well-designed laws, standards, policies and programmes can simultaneously reduce the emissions contributing to air pollution and climate change, producing a double dividend.[19] Improving air quality produces largely short-term and local benefits, whereas the positive effects of climate mitigation are long-term and global. Overall, the economic benefits are substantially larger than the costs of reducing emissions.[20] However, in some countries lack of capacity, inadequate human and financial resources, poor governance and weak rule of law are obstacles to implementing known solutions.

43. It is imperative that air quality solutions be implemented in systemic fashion, integrated with climate policy and the Sustainable Development Goals. For example, mistakes were made in earlier efforts to address climate change without adequately considering air quality. In a number of European countries, economic incentives encouraged the purchase of diesel vehicles in an effort to reduce carbon dioxide emissions. However, the climate mitigation benefits were outweighed by an increase in nitrogen oxides and particulate matter, resulting in an increase in premature deaths and preventable illnesses.[21]

III. Effects of air pollution on the enjoyment of human rights

44. Poor air quality has implications for a wide range of human rights, including the rights to life, health, water, food, housing and an adequate standard of living. Air pollution also clearly violates the right to a healthy and sustainable environment. While the General Assembly has adopted numerous resolutions on the right to clean water, it has never adopted a resolution on the right to clean air. Surely if there is a human right to clean water, there must be a human right to clean air. Both are essential to life, health, dignity and well-being. The United Nations High Commissioner for Human Rights stated at the First Global Conference on Air Pollution and Health, held in 2018, that "there can be no doubt that all human beings are entitled to breathe clean air".

45. Obligations related to clean air are implicit in a number of international human rights instruments, including the Universal Declaration of Human Rights (right to adequate standard of living), the International Covenant on Civil and Political Rights (right to life) and the International Covenant on Economic, Social, and Cultural Rights (right to health). Damage to crops inflicted by air pollution threatens the right to food, while contamination of aquatic ecosystems by airborne contaminants (e.g. mercury) jeopardizes both the right to food and the right to water.

46. In 2000, the Committee on Economic, Social and Cultural Rights called on States to formulate national policies with the objective of reducing and eliminating air pollution.[22] The High Commissioner for Human Rights (A/HRC/19/34 and Corr.1) and the Human Rights Council (resolution 35/24) have stressed the importance of addressing air pollution. The impacts of air pollution on human rights have been acknowledged repeatedly as part of

[19] V. Ramanathan and others, *Well Under 2 Degrees Celsius: Fast Action Policies to Protect People and the Planet from Extreme Climate Change*, report of the Committee to Prevent Extreme Climate Change (2017).

[20] D. Shindell and others, "Quantified, localized health benefits of accelerated carbon dioxide emissions reductions", *Nature Climate Change*, vol. 8, No. 4 (April 2018), pp. 291–295.

[21] E. Mazzi and H. Dowlatabadi, "Air quality impacts of climate mitigation: UK policy and passenger vehicle choice", *Environmental Science and Technology*, vol. 41, No. 2 (15 January 2007), pp. 387–392.

[22] General comment No. 14 (2000) on the right to the highest attainable standard of health.

the universal periodic review process.[23] The New Urban Agenda developed at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) and endorsed by the General Assembly (resolution 71/256, annex) contains extensive references to the interrelated imperatives of respecting human rights and improving both ambient and household air quality.

47. Special procedures of the Human Rights Council have urged States to tackle the scourge of air pollution. In a report on children's rights and the environment (A/HRC/37/58), the mandate holder emphasized the need to reduce the catastrophic health impacts of air pollution. In 2016, the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes decried the "silent pandemic" of disease associated with childhood exposure to toxic substances, including air pollution (A/HRC/33/41). In 2018, the Independent Expert on the enjoyment of all human rights by older persons called upon States to reduce air pollution because it "disproportionately affects the health of older persons" (A/HRC/39/50). Special rapporteurs have also produced country reports highlighting the importance of tackling air pollution (A/HRC/30/40/Add.1 and Corr.1, A/HRC/37/58/Add.2).

48. Human rights are a vital element of the Sustainable Development Goals and improving air quality is essential to achieving several targets within the Goals, including target 3.9 on reducing deaths and illnesses from pollution; targets 7.1 on universal access to modern energy services and 7.2 on increasing the use of renewable energy; target 11.6 on reducing the per capita environmental impact of cities; and target 12.4 on environmentally sound management of chemicals and wastes.

49. Improving air quality would also benefit human rights related to other Sustainable Development Goals, including Goal 1 on no poverty; Goal 5 on gender equality; Goal 6 on clean water and sanitation; Goal 9 on industry, innovation and infrastructure; Goal 10 on reduced inequalities; and Goal 13 on climate action.

50. Approaching air quality from a human rights perspective highlights the principles of universality and non-discrimination, under which human rights are guaranteed for all persons, including persons living in vulnerable situations. A human rights perspective can also serve as a catalyst for accelerated action to achieve clean air, empower those working to improve air quality and serve as a North Star or Southern Cross to guide our actions as we navigate towards a healthy and sustainable future.

A. Right to life

51. The right to life is universally recognized in human rights law. The Human Rights Committee, in 2018, stated: "Environmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life."[24]

52. As noted earlier, air pollution causes 7 million premature deaths annually, including the deaths of more than 600,000 children. These staggering and almost incomprehensible statistics represent an egregious violation of the right to life.

B. Right to health

53. The Universal Declaration of Human Rights includes health as part of the right to an adequate standard of living (art. 25). The International Covenant on Economic, Social and Cultural Rights enshrines the right to health and provides that the steps to be taken by States to achieve the full realization of that right "shall include those necessary for ... the improvement of all aspects of environmental and industrial hygiene" (art. 12). The

[23] See, for example, Kuwait (A/HRC/29/17, para. 157.257) and the former Yugoslavian Republic of Macedonia (A/HRC/26/10, para. 101.104).

[24] General comment No. 36 (2018) on the right to life, para. 62.

Committee on Economic, Social and Cultural Rights determined that the right to health extends to the "underlying determinants of health", including safe drinking water, adequate sanitation, safe food, adequate housing and healthy working and environmental conditions.[25] The Committee has also encouraged individual States to increase their efforts to reduce air pollution in order to protect human rights.[26]

54. The number of people whose right to health is violated by air pollution is in the billions. Again, 90 per cent of all people live in places where the air quality fails to meet the guidelines established by WHO.

C. Rights of the child

55. The Convention on the Rights of the Child, in describing the right to health, explicitly requires that States act in the best interests of the child and consider "the dangers and risks of environmental pollution" (art. 24 (2) (c)). This led WHO to conclude that "children have a basic human right to breathe clean air in their homes, schools, and communities".[27]

56. The Committee on the Rights of the Child concluded that "States should take measures to address the dangers and risks that local environmental pollution poses to children's health in all settings".[28] In several concluding observations, the Committee has urged States to scale up and expedite actions to protect children from polluted air.[29]

IV. Human rights obligations relating to clean air

57. As the previous mandate holder made clear, States have obligations to protect the enjoyment of human rights from environmental harm (A/HRC/25/53). The foreseeable adverse effects of poor air quality on the enjoyment of human rights give rise to extensive duties of States to take immediate actions to protect against those effects. In a joint statement issued in 2017, a group of United Nations experts said "a threat like this can no longer be ignored. States have a duty to prevent and control exposure to toxic air pollution and to protect against its adverse effects on human rights."[30]

58. The framework principles on human rights and the environment clarify the three categories of State obligations: procedural, substantive, and special obligations towards those in vulnerable situations. Therefore, the framework principles can be operationalized in the context of air pollution in order to respect, protect and fulfil human rights.

59. The procedural obligations of States in relation to the right to breathe clean air include duties related to promoting education and public awareness; providing access to information; ensuring freedom of expression, association and assembly; facilitating public participation in the assessment of proposed projects, policies and environmental decisions; and ensuring affordable, timely access to remedies.

60. With respect to substantive obligations, States must not violate the right to breathe clean air through their own actions; must protect the right from being violated by third parties, especially businesses; and must establish, implement and enforce laws, policies and programmes to fulfil the right. States also must avoid discrimination and retrogressive measures.

[25] General comment No. 14.

[26] See E/C.12/MNG/CO/4, E/C.12/KWT/CO/2 and E/C.12/KAZ/CO/1.

[27] WHO, "Air pollution and children's health: a global health emergency", background document prepared for the First WHO Global Conference on Air Pollution and Health, Geneva, 2018.

[28] General comment No. 15 (2013) on the right of the child to the enjoyment of the highest attainable standard of health, para. 49.

[29] See CRC/C/BRA/CO/2-4, CRC/C/PAK/CO/5 and CRC/C/GBR/CO/5.

[30] "Toxic air pollution: UN rights experts urge tighter rules to combat 'invisible threat'", press release, 24 February 2017.

61. There are seven key steps that States must take in fulfilling the right to breathe clean air: monitor air quality and impacts on human health; assess sources of air pollution; make information publicly available, including public health advisories; establish air quality legislation, regulations, standards and policies; develop air quality action plans at the local, national and, if necessary, regional levels; implement an air quality action plan and enforce the standards; and evaluate progress and, if necessary, strengthen the plan to ensure that the standards are met.

62. At each of these stages, States must ensure that the public is fully informed and has an opportunity to participate in decision-making processes. Extra effort should always be made to reach out to women, children and others in vulnerable situations whose voices are too often not heard in environmental policy processes. States must pay special attention to environmental defenders working to protect the right to clean air.

A. Monitoring air quality and health effects

63. States must establish networks and programmes to monitor air quality and health effects, particularly in urban areas and other regions known to suffer from poor air quality. Direct monitoring data can be complemented by air quality observations from satellites and outputs from computer models. Monitoring is a prerequisite to fulfilling a State's obligation to provide information to the public and is also essential to informed policy-making.

64. Most high-income countries operate extensive air quality monitoring networks providing continuous, hourly measurements of pollution levels. However, these networks are less common or provide less comprehensive coverage in low- and middle-income countries where air quality is generally worse. Some countries, particularly in Africa, have no air quality monitoring stations at all. Several States with severe air quality problems, such as China and India, have made great strides in recent years in establishing hundreds (India) and thousands (China) of new air quality monitoring stations.

65. New technologies offer the possibility of leapfrogging expensive air quality monitoring stations. Stationary and dynamic networks of low-cost sensors are much less expensive. Air pollution sensors can be deployed on cell phones, drones and vehicles by Governments, citizens, communities and businesses. Networks of these devices, integrated with satellite data and modelling, could complement regulatory monitoring and help identify air pollution hotspots. However, questions regarding the reliability and consistency of low-cost sensors need to be addressed by standards and protocols.

B. Assessing the sources of air pollution

66. Reducing the disease burden attributable to air pollution and fulfilling the right to clean air require understanding the types of pollution and major contributing sources. This is critical for identifying the highest priority and most cost-effective actions for controlling emissions to protect public health, human rights and the environment. Source assessments have been completed in many high-income nations, as well as in China and India, although there is substantial uncertainty regarding emissions from the large informal sectors in these economies.[31] Modelling and forecasting inform estimates of exposure and health impacts, provide a basis for air quality advisories and identify measures needed to control specific emissions. Without adequate information, designing effective policies, programmes and other interventions is impossible.

C. Public reporting on air quality

67. In addition to systematically collecting air quality information, States must share this information in a timely, accessible way, educate the public about the health risks posed by

[31] Health Effects Institute, *State of Global Air 2018: A Special Report on Global Exposure to Air Pollution and its Disease Burden* (Boston, 2018).

poor air quality and have systems in place to provide warnings when pollution poses an acute health threat, particularly for vulnerable populations.

68. In its general recommendation 32/2018, the National Human Rights Commission of Mexico described that country's inadequate air quality monitoring system as a violation of the public's right to environmental information and a violation of the right to a healthy environment.

D. Establishing air quality legislation, regulations and standards

69. States have an obligation to "establish and maintain substantive environmental standards that are non-discriminatory, non-retrogressive and otherwise respect, protect and fulfil human rights" (A/37/59, annex, framework principle 11). WHO has published guidelines for ambient air quality as well as indoor air quality, which States should incorporate as legally binding national standards.[32] In recognition of the different national contexts and capacities, WHO created interim guidelines for ambient particulate matter. The focus of the indoor air quality guidelines is on shifting to cleaner fuels and technologies for cooking, heating and lighting. These guidelines are under review because new evidence indicates that there is no safe level of exposure for some air pollutants, such as fine particles.

70. A global review of national air quality standards published in 2017 revealed that few States have incorporated the WHO guidelines into their air quality standards.[33] Not one State has adopted all of the WHO air quality guidelines, and only seven have adopted the most stringent WHO guideline for fine particulate matter. Incredibly, 80 States have no air quality standards or guidelines at all. Even in the European Union, air quality standards fail to meet the WHO guidelines. For example, the annual fine particulate limit is 2 1/2 times higher than the WHO recommendation. In the absence of strong standards, it is likely impossible to fulfil the right to breathe clean air.

71. Air quality standards should protect the most vulnerable members of society, in part by applying the precautionary principle and using adequate margins of safety. National standards must take into consideration the best interests of children.[34] The complete absence or weakness of national air quality standards in many States indicates a widespread failure to fulfil this fundamental human rights obligation, with devastating impacts upon the health of children around the world.

E. Air quality action plans

72. States must develop air quality action plans that identify the most important and effective measures that can be implemented to improve air quality, particularly for vulnerable populations.

73. Pursuant to principles of international human rights law, the right to breathe clean air is subject to progressive realization, recognizing that in some low- and middle-income States it cannot be immediately fulfilled. States have discretion to determine which air quality policies and programmes are best suited to their particular circumstances. However, they have obligations, to the maximum of their available resources (in some cases supplemented with international assistance), to implement concrete and effective measures to prevent increases in air pollution, improve air quality and fulfil the right to breathe clean air. Some obligations, such as non-discrimination and non-regression, are of immediate

[32] WHO, *WHO Guidelines for Indoor Air Quality: Household Fuel Combustion* (Geneva, 2014); and WHO Regional Office for Europe, *Air Quality Guidelines: Global Update 2005: Particulate Matter, Ozone, Nitrogen Dioxide and Sulfur Dioxide* (Copenhagen, 2006).

[33] M.K. Joss and others, 2017. "Time to harmonize national ambient air quality standards for global health equity", *International Journal of Public Health*, vol. 62, No. 4 (May 2017), pp. 453–462.

[34] Convention on the Rights of the Child, art. 3 (1).

effect. The principle of non-regression means States must not weaken air quality regulations, standards or policies.

74. A comprehensive assessment of potential air quality actions in the Asia-Pacific region identified 25 measures that could save millions of lives annually, reduce crop losses by 45 per cent, fulfil the right to breathe clean air for a billion people by 2030 and provide benefits for water, soil, forests and biodiversity. The measures include conventional actions (e.g. standards for power plants, industry and vehicles), less common actions (e.g. restrictions on burning agricultural waste and garbage and rules governing livestock manure) and development actions with air quality co-benefits (e.g. clean cooking, energy efficiency incentives and improved public transit). The annual costs of $300–$600 billion would be offset by benefits for human health, food production, water security, environmental quality and climate protection.[35]

75. As mentioned earlier, certain aspects of air pollution cannot be addressed effectively without coordinated international action. Under international human rights law, States have an obligation to cooperate in addressing environmental problems that cross national borders, including transboundary air pollution.

F. Implementing and enforcing air quality rules

76. States must ensure the effective enforcement of their environmental standards against public and private actors (ibid., framework principle 12). Environmental laws, regulations and standards are useless if they are not implemented and enforced. Sufficient human and financial resources must be allocated to government agencies responsible for enforcing them.

77. States are obligated to ensure that people have access to remedies, through judicial or similar processes, when their right to breathe clean air is being threatened or violated or when other legal obligations related to air quality are not being fulfilled. In some States, efforts to improve the environmental rule of law are needed to enable implementation and enforcement.

G. Evaluating and revising air quality standards and plans

78. An essential element of efforts to improve air quality is to evaluate progress (or the lack thereof) on a regular basis and revise air quality standards and plans accordingly. New scientific evidence and public participation must also be incorporated into the review and revision processes.

Business obligations related to air quality

79. Businesses are obliged to respect human rights in all aspects of their operations, yet are a major source of air pollution. In terms of their potential impacts on air quality, businesses should comply with the Guiding Principles on Business and Human Rights as well as the Children's Rights and Business Principles.

80. Regrettably, there are countless examples of businesses violating the right to breathe clean air. For example, some Swiss businesses are selling extremely dirty diesel and gasoline in West Africa (containing sulphur levels hundreds of times higher than European law permits).[36] Some vehicle manufacturers acted fraudulently in selling millions of vehicles equipped with "defeat devices" that enabled vehicles to pass emission tests but produce illegal quantities of pollution under normal driving conditions. Businesses have exported polluting facilities, outdated manufacturing equipment and used vehicles from

[35] UNEP, *Air Pollution in Asia and the Pacific: Science-Based Solutions* (Bangkok, 2018).

[36] Public Eye, *Dirty Diesel: How Swiss Traders Flood Africa with Dirty Fuel* (Lausanne, 2016).

high-income nations to low-income nations, where environmental and occupational standards are lower or not vigorously enforced.[37]

H. Environmental human rights defenders

81. Across the world there has been a terrible increase in the number of people being murdered, criminalized, harassed, sued or otherwise intimidated because of their courageous efforts to protect the environment and human rights.[38] Individuals working to protect the right to breathe clean air are among the victims. One example is Phyllis Omido of Kenya, who was subjected to death threats because she opposed a lead smelter operating near her home. Gloria Capitan, a heroic woman from the Philippines, was killed because of her opposition to the coal industry.

82. States must prioritize action to protect environmental human rights defenders, ideally by establishing institutions and rules to address the root causes of violence and harassment, celebrating and supporting defenders' work instead of attacking it and ensuring justice by holding perpetrators of violence accountable for their actions.[39]

V. Good practices

83. WHO observed in 2017 that "experiences and insights about good practices are not widely accessible or used" in the area of air pollution.[40] Therefore, the present report highlights a number of laws, policies, programmes and initiatives that have prevented or alleviated human rights violations caused by air pollution.

84. Many States reported to the Special Rapporteur that they are making dedicated efforts to improve air quality and protect their peoples' right to live in a healthy and sustainable environment.[41] Some are establishing or improving air quality monitoring networks, including Azerbaijan, Bolivia (Plurinational State of), Jordan, Mali, Morocco and Qatar. Bulgaria, Costa Rica, Croatia, Singapore and Slovakia are enacting increasingly stringent regulations for industry, vehicles, fuels and other sectors. Improving air quality within buildings is a priority for Bulgaria, Hungary, Montenegro and Poland. National action plans to improve air quality are being developed or implemented in Bahrain, Colombia, Ireland, Kuwait, Montenegro and Uruguay. Slovenia has a website dedicated to air quality action. Colombia, Costa Rica and Uruguay are promoting renewable energy and electric vehicles. Singapore created a vehicular emissions scheme that provides for surcharges or rebates on new and imported vehicles based on their environmental impact. Mali has an agency dedicated to rural electrification and adopted a law protecting human rights defenders, including environmentalists.[42]

85. The United Nations has established various initiatives to address air pollution. The Climate and Clean Air Coalition focuses on reducing short-lived climate pollutants. The goals of the Sustainable Energy for All initiative are to achieve universal access to modern energy services, double the global rate of improvement in energy efficiency and double the share of renewable energy in the global energy mix. Other initiatives include BreatheLife,

[37] A. Levinson and M.S. Taylor, "Unmasking the pollution haven effect", *International Economic Review*, vol. 49, No. 1 (February 2008), pp. 223–254.

[38] Global Witness, *At What Cost? Irresponsible Business and the Murder of Land and Environmental Defenders in 2017* (London, 2018).

[39] See Declaration on the Rights and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms (Declaration on Human Rights Defenders); and Inter-American Court of Human Rights, *Kawas Fernández v. Honduras*, Merits, Reparations and Costs, Judgment of 3 April 2009.

[40] WHO, "Draft road map for an enhanced global response to the adverse health effects of air pollution", document EB 138/17, p. 2, note 1.

[41] The submissions made in response to the Special Rapporteur's call for inputs are publicly available at www.ohchr.org/EN/Issues/Environment/SREnvironment/Pages/AirPollution.aspx.

[42] Law No. 2018-003 of 12 January 2018 on human rights defenders.

the Urban Health Initiative (with pilot projects in Accra and Kathmandu) and the Global Platform on Air Quality and Health.

A. Cleaner air: progress in reducing household air pollution

86. The proportion of households using solid fuels for cooking and heating has been declining in Latin America, parts of Asia (including China, India and Indonesia), Europe and the Eastern Mediterranean. This has contributed to a significant decline in premature deaths from household air pollution.[43] It is strong evidence of the preventable nature of this problem, which can be effectively addressed by government policies and programmes, market-oriented solutions and targeted development assistance. However, there has been only modest progress in Africa.

87. There are many initiatives under way to accelerate the replacement of polluting fuels and cooking/heating/lighting technologies with clean fuels and clean technologies.[44] The Clean Cooking Alliance is working towards an objective of having at least 100 million homes adopt clean fuels and stoves by 2020. WHO has developed a Clean Household Energy Solutions Toolkit and "guidelines for indoor air quality: household fuel combustion" that clarify what is considered "clean". Cooking for Life, a project developed by the World LPG Association and the United Nations, aims to transition households from using polluting fuels to liquefied petroleum gas (LPG) for cooking.

88. Pradhan Mantra Ujjwala Yojana is an Indian government programme started in 2016 that targets women living in poverty. Funds are provided directly to women to purchase LPG stoves, connections and fuel. More than 50 million new LPG connections have already been made.[45] The goal is to have LPG in 95 per cent of households by 2022. This programme has a positive impact on the lives of millions of women, girls and households living in poverty by providing them with access to safe, affordable cooking technologies and fuels and reducing time previously spent gathering fuels. However, many households with LPG connections continue to use solid fuels sometimes for cooking (for economic and cultural reasons).[46]

89. Indonesia implemented a successful "Zero Kero Programme", launched in 2007, to convert households from kerosene to LPG.[47] Kerosene is less efficient than LPG and produces more household air pollution. Over 57 million free LPG starter packages (including a one-burner stove, hose, regulator and a filled 3-kilogram cylinder) were distributed to households and micro-businesses. Total household kerosene use in Indonesia dropped 92 per cent between 2006 and 2015, while per capita LPG use quintupled. Although household air quality improved, some households practise fuel stacking (i.e. the side-by-side use of different fuels and stoves). The programme resulted in net savings in the billions of dollars for the Government by replacing kerosene subsidies with smaller LPG subsidies (taking into account the cost of the starter packages). The programme also reduced overall greenhouse gas emissions from cooking. A post-implementation survey showed that 99.8 per cent of the households preferred using LPG to kerosene, citing its greater efficiency, speed of cooking and cleanliness.[48]

90. The national efficient cooking programme of Ecuador removes LPG subsidies (previously costing $700 million per year) and helps households switch to induction

[43] Health Effects Institute, *State of Global Air 2018*.

[44] A. Quinn and others, "An analysis of efforts to scale up clean household energy for cooking around the world", *Energy for Sustainable Development*, vol. 46 (October 2018), pp. 1−10.

[45] See www.pmujjwalayojana.com.

[46] A. Kar and H. Zerriffi, "From cookstove acquisition to cooking transition: framing the behavioural aspects of cookstove interventions", *Energy Research and Social Science*, vol. 42 (August 2018), pp. 23−33.

[47] K. Thoday and others, "The mega conversion program from kerosene to LPG in Indonesia: lessons learned and recommendations for future clean cooking energy expansion", *Energy for Sustainable Development*, vol. 46 (December 2018), pp. 71−81.

[48] World LPG Association, Kerosene to LPG conversion programme in Indonesia, 2018.

cooktops and renewable electricity. The programme aims to replace LPG-based cooktops and water heating systems with electric systems for 3 million families. Families will save time cooking, and the programme will reduce greenhouse gas emissions.[49]

91. The International Energy Agency estimated that annual investments of $4.7 billion could achieve universal access to clean cooking by 2030.[50] This relatively modest investment would produce tremendous returns: millions of premature deaths avoided each year, improved health, better quality of life, expanded economic opportunities, reduced deforestation and decreased greenhouse gas emissions.

B. Cleaner air: progress in reducing ambient air pollution

92. There is compelling evidence that enacting and enforcing strong air quality regulations saves lives and prevents illnesses. Since the Clean Air Act was enacted in 1970, the economy of the United States of America has grown by 262 per cent (measured by increased gross domestic product) while achieving average reductions of 73 per cent for six main air pollutants. Full implementation of the Clean Air Act will prevent 230,000 premature deaths per year by 2020. Its costs are measured in billions of dollars, while the benefits are in the trillions.[51] Reduced air pollution in California resulted in significant improvements in children's lung function.[52]

93. Air quality in China is improving as a result of strong laws, policies and actions. China strengthened its Law on the Prevention and Control of Atmospheric Pollution Control and invested hundreds of billions of dollars to improve air quality. The Government is implementing a "three-year plan on defending the blue sky", with specific targets for reducing air pollution by 2020. Levels of particulate matter in 74 cities decreased by 33 per cent in five years.[53] China also achieved substantial reductions in nitrogen oxides and sulphur dioxide. Cleaner air is linked to significant declines in infant mortality.[54]

94. Shenzhen, in southern China, has grown from a town of 30,000 in 1980 to a megalopolis of 12 million, but managed to maintain 45 per cent of the metropolitan area as green space. Shenzhen converted its entire municipal bus fleet − more than 16,000 buses − to fully electric, making a significant contribution to improving urban air quality.

95. Several States explicitly recognize the right to breathe clean air. Examples include the Philippines Clean Air Act, the Environmental Code of France and the General Law on the Environment and Natural Resources 2000 of the Dominican Republic. The right to breathe clean air is also recognized at the subnational level in some countries, including the state constitutions of Pennsylvania and Massachusetts in the United States.[55] In other countries, including India and Pakistan, courts have clarified that the right to breathe clean air is constitutionally protected because it is an integral component of the rights to life and health. The National Strategy for Air Quality Management of Lebanon states: "Every citizen has the right to enjoy clean air."

[49] See https://unfccc.int/climate-action/momentum-for-change/activity-database/efficient-cooking-program-ecp.

[50] World Bank, *The State of the Global Clean and Improved Cooking Sector*, p. 8.

[51] United States Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act from 1990 to 2020* (2011).

[52] W.J. Gauderman and others, "Association of improved air quality with lung development in children", *New England Journal of Medicine*, vol. 372, No. 10 (5 March 2015), pp. 905–913.

[53] J. Huang and others, "Health impact of China's Air Pollution Prevention and Control Action Plan: an analysis of national air quality monitoring and mortality data", *Lancet Planetary Health*, vol. 2, No. 7 (July 2018), pp. e313−323.

[54] S. Tanaka, "Environmental regulations on air pollution in China and their impact on infant mortality", *Journal of Health Economics*, vol. 42 (July 2015), pp. 90−103.

[55] Constitution of the State of Pennsylvania: art. 27: "The people have a right to clean air …."

96. In Europe, a series of legal developments has established that European citizens have an enforceable right to breathe clean air.[56] In 2008, the European Union amended its rules governing air quality.[57] Many States are not in compliance with the new rules. Successful lawsuits based on violations of air quality standards have been brought by civil society organizations including ClientEarth in the United Kingdom of Great Britain and Northern Ireland, Friends of the Earth in France, Deutsche Umwelthilfe in Germany and others in Austria, Czechia and Poland.[58]

97. In its latest report, the Intergovernmental Panel on Climate Change calls for a two-thirds reduction in coal power generation in 2030 and a near-total elimination by 2050.[59] A growing number of States have eliminated the use of coal to generate electricity, are phasing out coal or are committed to never using coal for electricity generation. Canada and the United Kingdom created the Powering Past Coal Alliance in 2017 and have been joined by more than 25 States pledging to end coal use by 2030. China and India have closed coal-fired electricity plants located in proximity to large cities. The number of proposed coal-fired power plants has fallen dramatically since 2015 and new construction is almost offset by the retirement of existing coal plants.[60]

98. Two initiatives that have dramatically improved air quality in many countries are the phase-out of leaded gasoline and major reductions in the sulphur content of transport fuels. These actions have produced enormous health, environmental and economic benefits, valued in the trillions of dollars.[61]

99. Curitiba, a large Brazilian city, has built an extensive rapid bus system. In 2013, a plan to add 300 kilometres of bicycle paths was launched. These transport initiatives have contributed to making life expectancy in Curitiba two years longer than the national average and to relatively low infant mortality.[62] Estonia piloted free public transit in its capital in 2013 and recently extended the system across the whole country. There are approximately 100 public transit systems in the world, from Dunkirk, France, to Changning, China, offering free fare programmes.

100. A growing number of countries (e.g. China, Germany, India and the United Kingdom) have pledged to phase out the sale of internal combustion vehicles by dates ranging from 2030 to 2040.[63]

101. Norway has achieved a remarkably high proportion of electric vehicle sales through a variety of incentives and disincentives. The most recent data indicate that 60 per cent of new vehicle sales in Norway are fully electric or gas/electric hybrids, compared with 1 per cent in the United States and 2 per cent in China. Throughout the European Union, States impose vehicle registration taxes and fuel taxes intended to encourage the purchase of clean vehicles and discourage the purchase of more polluting models.

102. In California, rules prohibit siting new schools within 500 feet (150 metres) of busy roads, in response to scientific evidence about the adverse health effects of traffic-related air pollution on developing lungs, brains and other organs.

103. Shipping is a major source of air pollution. The International Maritime Organization recently established a strict new limit for the sulphur content of fuel used in shipping. This change will prevent an estimated 570,000 premature deaths between 2020 and 2025.[64]

[56] A. Andrews, *The Clean Air Handbook: A Practical Guide to EU Air Quality Law* (London, ClientEarth, 2015).

[57] Directive 2008/50/EC on ambient air quality and cleaner air for Europe.

[58] See www.right-to-clean-air.eu/en/.

[59] Intergovernmental Panel on Climate Change, *Special Report: Global Warming of 1.5º C* (2018).

[60] See www.endcoal.org.

[61] E. Gould, "Childhood lead poisoning: conservative estimates of the social and economic benefits of lead hazard control", *Environmental Health Perspectives*, vol. 117, No. 7 (July 2009), pp. 1162–1167.

[62] WHO, *Inheriting a Sustainable World?*

[63] Center for Climate Protection, Actions by countries to phase out internal combustion engines, 2018.

104. Many economists support putting fees or taxes on air emissions, thus implementing the polluter pays principle. A challenge is to ensure that the price on air emissions is high enough to produce substantial reductions, as affected businesses will raise competitiveness concerns. Another challenge is that different pollutants have different health and environmental impacts, so prices should be higher on emissions of more harmful substances.

105. Good examples include a tax in Chile on stationary sources of air pollution that is higher for facilities located in more densely populated areas and the national pollution tax in France that imposes higher taxes on more harmful air pollutants.

106. The Economic Commission for Europe Convention on Long-range Transboundary Air Pollution is an excellent example of regional cooperation. The Convention was signed in 1979, entered into force in 1983 and is now accompanied by eight protocols. Fifty-one parties from three continents have collaborated to set emission reduction targets, monitor compliance, build capacity and raise awareness. Sulphur dioxide emissions in the region have declined 70 per cent since 1990, while nitrogen dioxide emissions fell 40 per cent.[65] The 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone, as amended in 2012, is the first legally binding agreement containing obligations to reduce short-lived climate pollutants.

107. The Aarhus Convention and its Protocol on Pollutant Release and Transfer Registers provide other examples of effective international instruments. The Aarhus Convention guarantees three key procedural rights (information, participation and access to justice) and promotes good practices as means of fulfilling the right to a healthy environment.

108. In response to problems caused by transboundary air pollution, Singapore created a programme in 2013 to subsidize medical treatment for air pollution-related illnesses experienced by vulnerable populations including children, the elderly and low-income residents. Approximately 100,000 people benefited from these medical subsidies.

VI. Conclusions and recommendations

109. **Given the devastating impacts of poor air quality on people's lives, health and human rights, actions must be taken rapidly and systematically, with a priority focus on ameliorating conditions for the most vulnerable. Fulfilling the right to breathe clean air goes hand in hand with achieving the Sustainable Development Goals, including healthy lives for all, sustainable cities, universal access to clean energy and effective action to address climate change. A rapid shift away from fossil fuels to renewables such as solar and wind (except in the context of clean cooking, which often involves a shift to LPG) could save as many as 150 million lives over the course of the twenty-first century by reducing air pollution.**

110. **The failure to respect, protect and fulfil the right to breathe clean air is inflicting a terrible toll on people all across the world. The statistics presented in the present report depict a public health catastrophe, yet the numbers fail to capture the magnitude of human suffering involved. Each premature death, every illness and every disability afflicts an individual with hopes, dreams and loved ones. Air pollution is a preventable problem. The solutions − laws, standards, policies, programmes, investments and technologies − are known. Implementing these solutions will of course entail large investments, but the benefits of fulfilling the right to breathe clean air for all of humanity are incalculable.**

111. **In order to respect, protect and fulfil the right to breathe clean air, States must implement the seven steps outlined in paragraphs 63−78 (monitoring, source assessment, public information, air quality standards, action plan, implementation/enforcement and evaluation). States should review existing laws,**

[64] The regulation in revised annex VI to the International Convention for the Prevention of Pollution from Ships (MARPOL) limiting the sulphur content of bunker fuel to a maximum of 0.5 per cent will enter into force on 1 January 2020.

[65] Economic Commission for Europe, *Towards Cleaner Air: Scientific Assessment Report 2016*, 2017.

standards, policies and programmes to determine if they are consistent with their human rights obligations related to air quality, and amend them if necessary.

112. **Specific actions that States should consider as part of the national air quality action plan include:**

(a) **Prohibiting the construction of new fossil fuel power plants and replacing existing fossil fuel power plants with renewable sources of energy (by 2030 in high-income nations and 2050 elsewhere);**

(b) **Eliminating all remaining fossil fuel subsidies, except for LPG cooking programmes;**

(c) **Supporting the growth of distributed renewable energy generation systems;**

(d) **Reducing, minimizing or avoiding government actions that cause air pollution;**

(e) **Conducting assessments of the environmental, health and human rights implications of new projects, policies and plans that could cause air pollution;**

(f) **Disseminating information about best available technologies;**

(g) **Requiring industry to reduce and eliminate emissions of harmful air pollutants;**

(h) **Requiring the oil and gas industry to recover and use methane and other gases released during the exploration, development and production processes;**

(i) **Prioritizing emission reductions from high-polluting industrial facilities such as coke ovens, smelters, refineries, cement plants and brick kilns;**

(j) **Refusing to issue permits for new polluting facilities or activities in areas that are air pollution hotspots until air quality in such areas meets national standards and would continue to meet those standards despite the additional pollution;**

(k) **Ensuring an integrated approach to tackling air pollution and climate change to maximize co-benefits;**

(l) **Promoting compact and mixed-use urban design;**

(m) **Protecting and expanding urban green spaces;**

(n) **Prioritizing investments in safe walking, safe cycling and rapid public transit over infrastructure for private vehicles;**

(o) **Shifting to cleaner vehicles by strengthening emission standards and fuel efficiency rules while accelerating the transition to zero emission vehicles;**

(p) **Implementing building codes, rules and standards that substantially increase energy efficiency in buildings;**

(q) **Improving waste management by prohibiting the open burning of garbage, avoiding incineration and requiring the capture of methane at landfills;**

(r) **Creating laws, policies and programmes to discourage or prohibit burning of crop residue or agricultural waste and assist farmers to shift to cleaner practices;**

(s) **Lowering ammonia emissions from livestock manure and fertilizer use, in part by promoting a predominantly plant-based diet;**

(t) **Educating the public about the adverse health effects of air pollution and the benefits of implementing solutions;**

(u) **Using government procurement policies to advance all of the foregoing.**

113. **All new or amended laws, standards, policies and programmes should incorporate public participation, with an emphasis on including vulnerable populations and communities suffering from poor air quality. Accessible, affordable**

and effective judicial or quasi-judicial mechanisms are essential for enforcement, accountability and ensuring remedies are available if the right to clean air is threatened or violated.

114. **States must accelerate programmes to replace solid fuels and kerosene with cleaner energy and clean technologies. A concerted effort is required to address non-financial barriers to clean cooking by extending fuel supply infrastructure, implementing policies to reduce the variability of fuel prices and promoting gender equity in household decision-making. States must also educate the public about the adverse health consequences of household air pollution and the availability of cleaner alternatives. Transitional fuels and technologies may achieve major health gains at a lower cost, but the end goal is clean fuels and clean technologies, not merely less dirty ones. States should increase their financing to reduce and eliminate household air pollution and achieve universal access to clean cooking by 2030**

115. **Governments, businesses, international agencies and philanthropic foundations must accelerate their efforts to ensure access to clean energy. High-income countries should provide economic and technical assistance to low-income countries to support their efforts to fulfil the right to breathe clean air. The international financial institutions (e.g. World Bank, International Monetary Fund, Asian Development Bank and European Investment Bank) must avoid financing projects that will cause significant increases in air pollution.**

116. **In order to fulfil their responsibility to respect the human right to breathe clean air, businesses should:**

(a) **Make every effort to reduce emissions of air pollutants from their facilities and supply chains;**

(b) **Stop delaying the transition away from fossil fuels;**

(c) **Embrace the extraordinary economic opportunities presented by renewable energy, energy storage, energy efficiency, clean cook stoves, heating and lighting and zero emission vehicles;**

(d) **Contribute to and support efforts to shift towards the goal of a pollution-free circular economy.**

Annex 484

"INDC Project Actions and Impacts: Barbados", *United Nations Development Programme*, May 2019

BARBADOS

and the Paris Agreement



Sectors
Energy (including domestic transport); Industrial process and product use; Waste; Agriculture; Land Use, Land Use Change, and Forestry (LULUCF)

National Implementing Agency
Ministry of Environment and National Beautification

Intended Nationally Determined Contribution (INDC) submitted
September 30, 2015

Paris Agreement signed
April 22, 2016

Paris Agreement ratified
April 22, 2016

Background

As a small island developing state (SIDS), Barbados is extremely vulnerable to the adverse impacts of climate change such as extreme weather events, as well as subtle changes to temperature and precipitation patterns. Even though Barbados has a small population, limited land and natural resource base, and a small open economy, the impacts of climate change will likely undermine the hard-won sustainable development gains that have been achieved. Regardless of its limited financial resources and negligible contribution to global greenhouse gas (GHG) emissions, Barbados is taking a proactive and ambitious approach to reducing its own emissions by introducing concrete mitigation actions that will see the decarbonisation of its electricity grid, initiatives to improve energy efficiency, and reduced emissions from its other sectors. The country's Green Economy Scoping Study, National Sustainable Energy Framework (SEF) and Energy Nationally Appropriate Mitigation Actions (NAMA), form the backbone of Barbados' INDC.

About the INDC Project

The UNDP Low Emission Capacity Building (LECB) Programme was launched in January 2011 as part of a joint collaboration between the European Union, the Governments of Germany and Australia and UNDP. In the run up to the historic Paris Agreement, the European Commission and others provided financial and technical support specifically to advance the preparation of countries' INDCs. This support, in the context of the larger global LECB Programme called the INDC Project, continued post-Paris and has enabled advances in implementation and country-driven action.

ACTIONS

Consultation around the validation and approval of the NDC implementation work plan

Barbados successfully formulated and submitted its INDC but—as in many countries—it was prepared and submitted in short order and thus needed to be embedded and socialized throughout the country. After formal submission of the INDC, the government of Barbados begun a series of multi-stakeholder dialogues amongst the private sector, civil society, and regional and international organizations to help build support and elicit buy in for the proposals. Discussions centred around the INDC in the context of national development goals, relevant initiatives that could support the implementation, and the integration of mitigation and adaptation responses into sectoral policies and plans.

Stakeholders agreed on the need to clearly identify activities, roles, and timeframes, and to develop a national monitoring system to track progress an INDC booklet was also prepared for widespread dissemination. These actions set the scene for future NDC implementation, through achieving greater national awareness of, and stakeholder support for, the need for climate action.

Formulation of MRV system to monitor and report NDC implementation

In order to track progress toward the NDC targets, Barbados designed a monitoring, reporting and verification (MRV) system to capture GHG emission levels, the impact of mitigation and adaptation actions, and climate finance flows and to enable the routine compilation of data and information on progress towards the realization of NDC targets. The MRV system also indexes Barbados' green economy and sustainable development goals.

IMPACTS

Decisive policy assessment to update the NDC

The government's objective to be carbon neutral by 2030, mainly through measures in the energy sector, has fostered further consultations within the climate action arena. Government, with support from the INDC project, has been enabled to oversee the energy generation licensing regime and developed a new license for utilities and independent producers, aligned with the work done in the Energy NAMA. This work will directly influence the update of the NDC by 2020, raising ambition in the energy sector on the reduction of GHG emissions.

Institutional arrangements for climate action

The INDC formulation process helped to create an efficient coordination process in the government that in turn supported the NDC implementation planning process and related activities. Significantly, MRV discussions are now part of the coordination, contributing to institutionalization and ownership by government actors at multiple levels. The country is committed to measuring and monitoring progress on climate change actions, and to improved reporting processes.

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LAST UPDATED:
May 2019

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Annex 485

Joint statement by the Committee on the Elimination of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Committee on the Rights of the Child and the Committee on the Rights of Persons with Disabilities, HRI/2019/1, 14 May 2020

United Nations HRI/2019/1

International Human Rights Instruments

Distr.: General
14 May 2020

Original: English

Statement on human rights and climate change

Joint statement by the Committee on the Elimination of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Committee on the Rights of the Child and the Committee on the Rights of Persons with Disabilities

1. The Committee on the Elimination of Discrimination against Women, the Committee on Economic, Social and Cultural Rights, the Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Committee on the Rights of the Child and the Committee on the Rights of Persons with Disabilities welcome the convening of the Climate Action Summit by the United Nations Secretary-General in September 2019, to mobilize more ambitious emissions reduction plans and actions. The Committees urge all States to take into consideration their human rights obligations as they review their climate commitments.

2. The Committees also welcome the work of the international scientific community to further understand the implications of climate change and the solutions that could contribute to avoiding the most dangerous impacts of climate change. The Committees welcome in particular the report released in 2018 by the Intergovernmental Panel on Climate Change on global warming of 1.5°C above pre-industrial levels.[1]

3. That report confirms that climate change poses significant risks to the enjoyment of the human rights protected in the Convention on the Elimination of All Forms of Discrimination against Women, the International Covenant on Economic, Social and Cultural Rights, the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Convention on the Rights of the Child, and the Convention on the Rights of Persons with Disabilities. The adverse impacts identified in the report threaten, among others, the rights to life, to adequate food, to adequate housing, to health and to water, and cultural rights. These negative impacts are also illustrated in the damage suffered by ecosystems, which in turn affect the enjoyment of human rights.[2] The risk of harm is particularly high for those sectors of the population that are already marginalized or in vulnerable situations or that, owing to discrimination and pre-existing inequalities, have limited access to decision-making or resources, such as women, children, persons with disabilities, indigenous peoples and persons living in rural areas.[3] Children are

[1] See www.ipcc.ch/sr15/.

[2] See the report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment on the human rights obligations relating to the conservation and sustainable use of biological diversity (A/HRC/34/49).

[3] See the analytical study conducted by the Office of the United Nations High Commissioner for Human Rights on the relationship between climate change and the full and effective enjoyment of the rights of the child (A/HRC/35/13).

at a particularly heightened risk of harm to their health, owing to the immaturity of their body systems.[4]

4. As reflected by the Committee on the Elimination of Discrimination against Women in its general recommendation No. 37 (2018) on the gender-related dimensions of disaster risk reduction in the context of climate change, climate change and disasters affect women and men, girls and boys differently, with many women and girls facing disproportionate risks and impacts on their health, safety and livelihoods. Situations of crisis exacerbate pre-existing gender inequalities and compound the intersecting forms of discrimination that disproportionately affect disadvantaged groups of women and girls, particularly those with disabilities. Moreover, climate change and disasters, including pandemics, influence the prevalence, distribution and severity of new and re-emerging diseases. The susceptibility of women and girls to disease is heightened as a result of inequalities in access to food, nutrition and health care and the social expectations that women will act as primary caregivers for children, the elderly and the sick.

5. Such adverse impacts on human rights are already occurring with 1°C of global warming; every additional increase in temperature will further undermine the realization of rights. The report of the Intergovernmental Panel on Climate Change makes it clear that, in order to avoid the risk of irreversible and large-scale systemic impacts, urgent and decisive climate action is required.

6. The report of the Intergovernmental Panel on Climate Change also highlights the fact that adequate action to mitigate climate change would have significant social, environmental and economic benefits. The Panel warns of the risk of social and environmental damage resulting from poorly designed climate measures, thereby highlighting the importance for human rights norms to be applied at every stage of the decision-making process of climate policies.

7. As emphasized by the Committee on Economic, Social and Cultural Rights in its 2018 statement on climate change and the International Covenant on Economic, Social and Cultural Rights, human rights mechanisms have an essential role to play in ensuring that States avoid taking measures that could accelerate climate change, and that they dedicate the maximum available resources to the adoption of measures aimed at mitigating climate change. In its statement, the Committee also welcomed the fact that national judiciary and human rights institutions are increasingly engaged in ensuring that States comply with their duties under existing human rights instruments to combat climate change.

Agency and climate action

8. Women, children and other persons, such as persons with disabilities, should not be seen only as victims or in terms of vulnerability. They should be recognized as agents of change and essential partners in local, national and international efforts to tackle climate change.[5] The Committees emphasize that States must guarantee these individuals' human right to participate[6] in climate policymaking and that, given the scale and complexity of the climate challenge, States must ensure that they take an inclusive multi-stakeholder approach that harnesses the ideas, energy and ingenuity of all stakeholders.

9. The Committees welcome international cooperation to tackle climate change under the auspices of the United Nations Framework Convention on Climate Change and the Paris Agreement, and the national commitments and contributions made by all individual States to mitigate climate change. They also welcome the mobilization by civil society, particularly women, children and young people, to urge Governments to take more

[4] See Fiona Stanley and Brad Farrant, "Climate change and children's health: a commentary", *Children*, vol. 2, No. 4 (October 2015); and Council on Environmental Health, "Global climate change and children's health", *Pediatrics*, vol. 136, No. 5 (November 2015).

[5] Committee on the Elimination of Discrimination against Women, general recommendation No. 37, paras. 7–8.

[6] Ibid., paras. 32–36; Convention on the Elimination of All Forms of Discrimination against Women, arts. 7, 8 and 14; Convention on the Rights of the Child, art. 12; Universal Declaration of Human Rights, art. 21; International Covenant on Civil and Political Rights, art. 25; and Convention on the Rights of Persons with Disabilities, arts. 4 (3), 29 and 33 (3).

ambitious climate action. However, the Committees note with great concern that States' current commitments under the Paris Agreement are insufficient to limit global warming to 1.5°C above pre-industrial levels,[7] and that many States are not on track to meet their commitments. Consequently, States are exposing their populations and future generations to the significant threats to human rights associated with greater temperature increases.

States' human rights obligations

10. Under the Convention on the Elimination of All Forms of Discrimination against Women, the International Covenant on Economic, Social and Cultural Rights, the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, the Convention on the Rights of the Child, and the Convention on the Rights of Persons with Disabilities, States parties have obligations, including extraterritorial obligations, to respect, protect and fulfil all human rights of all peoples.[8] Failure to take measures to prevent foreseeable harm to human rights caused by climate change, or to regulate activities contributing to such harm, could constitute a violation of States' human rights obligations.[9]

11. In order for States to comply with their human rights obligations and to realize the objectives of the Paris Agreement, they must adopt and implement policies aimed at reducing emissions. These policies must reflect the highest possible ambition, foster climate resilience and ensure that public and private investments are consistent with a pathway towards low carbon emissions and climate resilient development.[10]

12. In their efforts to reduce emissions, States parties should contribute effectively to phasing out fossils fuels, promoting renewable energy and addressing emissions from the land sector, including by combating deforestation.[11] In addition, States must regulate private actors, including by holding them accountable for harm they generate both domestically and extraterritorially.[12] States should also discontinue financial incentives or investments in activities and infrastructure that are not consistent with low greenhouse gas emissions pathways, whether undertaken by public or private actors, as a mitigation measure to prevent further damage and risk.

13. When reducing emissions and adapting to climate impacts, States must seek to address all forms of discrimination and inequality, including advancing substantive gender equality, protecting the rights of indigenous peoples and of persons with disabilities, and taking into consideration the best interests of the child.

14. A growing number of people are are forced to migrate because their States of origin cannot ensure the enjoyment of adequate living conditions, owing to the increase in hydrometeorological disasters, evacuations of areas at high risk of disasters, environmental

[7] See www.ipcc.ch/sr15/.

[8] In this context, see also the Charter of the United Nations, Arts. 55–56; Committee on Economic, Social and Cultural Rights, general comment No. 24 (2017) on State obligations under the International Covenant on Economic, Social and Cultural Rights in the context of business activities, paras. 26–28; E/C.12/AUS/CO/5, paras. 11–12; E/C.12/ARG/CO/4, paras. 13–14; CRC/C/NOR/CO/5-6, para. 27; CRC/C/JPN/CO/4-5, para. 37; Committee on the Elimination of Discrimination against Women, general recommendation No. 37, paras. 43–46; CEDAW/C/AUS/CO/8, paras. 29–30; and CEDAW/C/NOR/CO/9, paras. 14–15.

[9] CRC/C/ESP/CO/5-6, para. 36; CRC/C/GBR/CO/5 and Corr.1, paras. 68–69; Committee on Economic, Social and Cultural Rights, statement on climate change and the International Covenant on Economic, Social and Cultural Rights; E/C.12/AUS/CO/5; Committee on the Elimination of Discrimination against Women, general recommendation No. 37, para. 14; and CEDAW/C/NOR/CO/9.

[10] Paris Agreement, art. 2.1.

[11] Committee on the Elimination of Discrimination against Women, general recommendation No. 37; CEDAW/C/AUS/CO/8; CRC/C/NER/CO/3-5; Committee on Economic, Social and Cultural Rights, statement on climate change and the International Covenant on Economic, Social and Cultural Rights; and E/C.12/ARG/CO/4.

[12] Committee on Economic, Social and Cultural Rights, statement on climate change and the International Covenant on Economic, Social and Cultural Rights; Committee on the Elimination of Discrimination against Women, general recommendation No. 37; CEDAW/C/FJI/CO/5; and CRC/C/ESP/CO/5-6.

degradation and slow-moving disasters, the disappearance of small island States as a result of rising sea levels, and even the occurrence of conflicts over access to resources. Migration is a normal human adaptation strategy in the face of the effects of climate change and natural disasters, and the only option for entire communities. Climate change-related migration has to be addressed by the United Nations and by States as an emerging form of migration and internal displacement.

15. States must therefore address the effects of climate change, environmental degradation and natural disasters as drivers of migration and ensure that such factors do not hinder the enjoyment of the human rights of migrants and their families. In addition, States should offer migrant workers displaced across international borders in the context of climate change or disasters and who cannot return to their countries complementary protection mechanisms and temporary protection or stay arrangements.

16. In the design and implementation of climate policies, States must also respect, protect and fulfil the rights of all, including by mandating human rights due diligence and ensuring access to education, awareness-raising and environmental information, and public participation in decision-making. In particular, States have the responsibility to protect and defend effectively the rights of environmental human rights defenders, including women, indigenous and child environmental defenders.

International cooperation

17. As part of international assistance and cooperation towards the realization of human rights, high-income States should support adaptation and mitigation efforts in developing countries by facilitating transfers of green technologies and by contributing to financing climate mitigation and adaptation. In addition, States must cooperate in good faith in the establishment of global responses addressing climate-related loss and damage suffered by the most vulnerable countries, paying particular attention to safeguarding the rights of those who are at particular risk of climate harm and addressing the devastating impact of climate disruptions, including on women, children, persons with disabilities and indigenous peoples.

Role of the Committees

18. In their future work, the Committees will continue to keep under review the impacts of climate change and climate-induced disasters on the rights holders protected under their respective treaties. They will also continue to provide States parties with guidance on how they can meet their obligations under these instruments in relation to mitigation and adaptation to climate change.

Annex 486

Report of the Office of the United Nations High Commissioner for Human Rights, Analytical study on the promotion and protection of the rights of older persons in the context of climate change, A/HRC/47/46, 30 April 2021

United Nations A/HRC/47/46

General Assembly

Distr.: General
30 April 2021

Original: English

Human Rights Council
Forty-seventh session
21 June–9 July 2021
Agenda items 2 and 3
Annual report of the United Nations High Commissioner for Human Rights and reports of the Office of the High Commissioner and the Secretary-General

Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development

Analytical study on the promotion and protection of the rights of older persons in the context of climate change

Report of the Office of the United Nations High Commissioner for Human Rights

Summary

The present study is submitted pursuant to Human Rights Council resolution 44/7. It examines the human rights impacts of climate change on older persons and the related commitments and obligations of States, highlights the benefits of climate action by older persons, provides examples of promising practice, and offers conclusions and recommendations.

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I. Introduction

1. The present study is submitted pursuant to Human Rights Council resolution 44/7, in which the Council requested the Office of the United Nations High Commissioner for Human Rights (OHCHR) to conduct a study, in consultation with relevant stakeholders, on the promotion and protection of the rights of older persons in the context of climate change, including their particular vulnerabilities, such as physical and mental health risks, and their contributions to efforts to address the adverse impact of climate change.

2. On 18 September 2020, OHCHR circulated a questionnaire to Member States and other stakeholders, including international organizations, national human rights institutions and civil society, for their inputs. The contributions received informed the present study.[1]

3. In the study, OHCHR examines the human rights impacts of climate change on older persons and the related legal and policy commitments and obligations of States. It also highlights the potential of older persons' human rights-based climate action and provides examples of promising practice. The study concludes with concrete recommendations for fulfilling human rights obligations related to the human rights of older persons in the context of climate change.

II. Climate change impacts on older persons

4. Around the world, the climate change emergency is already causing rising temperatures, sea level rise and coastal erosion, forest fires, and extreme temperature and weather events including heatwaves, cold snaps, floods, droughts and hurricanes. Such events carry significant and often devastating human rights risks for all those affected,[2] but older persons face disproportionate impacts.

5. By the year 2050, it is estimated that there will be 1.5 billion people aged 65 and above, constituting one sixth of the world's population.[3] Age does not in itself make individuals more vulnerable to climate risks, but age is accompanied by a number of physical, political, economic and social factors that may do so. Older persons face a number of challenges in the enjoyment of their human rights, as has been evidenced during the coronavirus disease (COVID-19) pandemic.[4]

6. Older persons do not constitute a homogenous group, or one that has a clearly agreed definition. There is enormous variance among older persons in political and economic power, economic and social class, community integration, and other factors including gender, disability, race and ethnicity, indigeneity, and sexual orientation and gender identity, which has significant impacts on their enjoyment of human rights. Furthermore, "the needs, vulnerabilities and capacities of the old and the older old (those 80 years of age and over) are considerably different".[5] Older persons are often excluded, overlooked and neglected in research and data collection. Individuals often do not self-identify within the category of older persons, which is complex, socially constructed and context-specific, and data tend not to be disaggregated within higher age brackets.[6]

7. The human rights impacts of climate change on older persons are aggravated by ageism, which can lead to older persons being neglected, ignored and marginalized in laws

[1] All contributions received are available at www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/RightsOlderPersons.aspx.

[2] See A/74/161.

[3] Department of Economic and Social Affairs, *World Population Ageing 2019: Highlights* (United Nations publication, 2019), p. 5, available at www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf.

[4] See A/75/205; and the Secretary-General's policy brief on the impact of COVID-19 on older persons, available at www.un.org/sites/un2.un.org/files/un_policy_brief_on_covid-19_and_older_persons_1_may_2020.pdf.

[5] A/HRC/42/43, para. 45.

[6] See, generally, A/HRC/45/14.

and policy. "Prejudices about older persons being frail, sick and dependent drive their marginalization and legitimize exclusionary practices."[7] When it comes to climate action, stereotypes may paint older persons as "passive, incapable and withdrawn".[8] Compounding these problems, older persons do not have a specific instrument guaranteeing their human rights, and are not often mentioned in international environmental agreements.

8. Age discrimination can be a significant factor in older persons' exclusion from policies and programmes designed to address the negative effects of climate change, including during climate-related emergencies. At times in emergency settings ageism on the part of relief workers can lead to unequal or otherwise inadequate services and treatment.[9] Ageism and age discrimination, social isolation, neglect, poverty, migration status and disability are among the many factors that interact with climate change to adversely affect the human rights of older persons, as detailed in the paragraphs below.

A. Rights to life, health and safety

9. A number of climate change impacts disproportionately affect the lives and health of older persons, and policy responses have failed to account for these effects. Adults aged 65 and older are the most likely to die from heat exposure or during heatwaves, in extreme cold weather or winter storms, and in hurricanes and other natural hazards.[10] Older persons experience higher rates of cardiovascular illness and diabetes, which are linked to heat-related morbidity and mortality. A study in Finland found a 14 per cent increase in mortality for persons over the age of 65 as a result of heatwaves,[11] and in France during the 2003 European heatwave, 80 per cent of additional deaths occurred in persons aged over 75.[12] Seventy-five per cent of those who died during Hurricane Katrina in the United States of America were over the age of 60, as were about 40 per cent of those who died during Typhoon Haiyan in the Philippines in 2013[13] and 70 per cent of those who died as a result of floods in La Plata, Argentina, in the same year.[14]

10. *The Lancet* has found rising exposure and vulnerability to extremes of heat for people aged 65 and over in all parts of the world.[15] Air pollution, which is intimately linked to climate change, is a potential cause of dementia[16] and has disproportionate health effects for older persons, who as a result experience "higher primary care and emergency room use, more frequent hospital admissions, restricted activity and an increase in prescription medication use".[17] Climate change has also been linked to rising levels of a number of infectious diseases, which particularly impact older persons, as illustrated by the COVID-19

[7] A/HRC/39/50, para. 25.

[8] Gary Haq, Dave Brown and Sarah Hards, *Older People and Climate Change: The Case for Better Engagement* (Stockholm Environmental Institute, 2010), p. 2.

[9] A/HRC/42/43, para. 44.

[10] G. Adriana Perez, "The impacts of climate change take a heavier toll on older women", *Aging Today*, (March–April 2018).

[11] Submission by Finland, p. 3.

[12] K.R. Smith et al., "2014: Human health: impacts, adaptation, and co-benefits", *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, C.B. Field et al., eds. (Cambridge University Press, 2014), p. 721.

[13] HelpAge International, Climate change in an ageing world, 2015, p. 4, available from www.helpage.org/newsroom/latest-news/cop21-helpage-releases-position-paper-on-adapting-to-climate-change-in-an-ageing-world/?keywords=COP21.

[14] Silvia Gascon, HelpAge International, "Older people main victims of recent Argentina floods", 9 May 2013, available at www.helpage.org/blogs/silvia-gascon-19407/older-people-main-victims-of-recent-argentina-floods-557.

[15] Nick Watts and others, "The 2019 report of *The Lancet* Countdown on health and climate change: ensuring that the health of a child born today is not defined by a changing climate", *The Lancet*, vol. 394 (16 November 2019), pp. 1836–1878, see pp. 1837 and 1841.

[16] Ruth Peters and others, "Air pollution and dementia: a systematic review", *Journal of Alzheimer's Disease*, vol. 70 (2019), pp. 145–163, available at https://pubmed.ncbi.nlm.nih.gov/30775976.

[17] G. Adriana Perez, "The impacts of climate change take a heavier toll on older women".

pandemic.[18] In lower-income countries, "this susceptibility is exacerbated by poverty and malnutrition, poor infrastructure and the lack of resources to treat their specific needs".[19]

11. Climate-related emergencies such as heatwaves, floods and hurricanes can create disruptions to necessary health care and services for older persons. During heatwaves, older persons may be confined, without access to necessary medical care. Evacuations of older persons, particularly from care facilities, are complicated by the need to transfer medical equipment, supplies and records.[20] Older persons who do not have adequate existing structures of care and support may be cut off from relevant information and services during an emergency.[21] Emergencies have been found to worsen pre-existing health conditions in some older persons and to have negative cognitive and memory effects,[22] and older persons often take longer to recover from the physical effects of disasters.[23]

12. Climate change can also significantly impact older persons' mental health. Some older persons who survive disasters experience high rates of survivor's guilt, especially when they lose children or grandchildren, and older persons have been found to have high rates of post-traumatic stress and depression following floods.[24] While other studies have found these rates to be consistent with those of the general population, older persons may nevertheless be disproportionately impacted because some are more reluctant to seek mental health care.[25] Some older persons also experience increased loneliness and isolation as a result of climate effects,[26] or significant mental trauma or depression when confronting climate change impacts and feelings of guilt or powerlessness regarding the world that they will leave for future generations.

13. In emergencies, some older persons are also at higher risk of experiencing violence, exploitation, neglect and abuse. Emergency situations aggravate these risks, "as older persons are separated from community support and familiar service structures, while their role in the family and the community may be undermined".[27]

B. Human mobility

14. Migration and displacement are complex phenomena which are affected by multiple and interrelated dynamics. However, it is clear that both climate-related emergencies and the slow-onset effects of climate change are increasingly important factors in human mobility around the world, and that these phenomena can carry significant human rights risks for older persons.

15. In emergencies, older persons with limited mobility may have difficulty reaching safety. Infrastructure and policy may be lacking to ensure that they are aware of evacuation warnings, orders or services, especially if new technologies are relied on to disseminate such information, and to account for older persons' needs with regard to travel, adequate food, shelter, health care and services. Physical challenges that have only minor effects on day-to-day life may become serious impediments in an emergency, limiting older persons' mobility and adaptive capacity.[28]

[18] See, generally, A/75/205.
[19] HelpAge International, Climate change in an ageing world.
[20] Janet L. Gamble and others, "Climate change and older Americans: state of the science", *Environmental Health Perspectives*, vol. 121, No. 1 (1 January 2013), p. 17.
[21] Submission by AGE Platform Europe, p. 2.
[22] Janet L. Gamble and others, "Climate change and older Americans: state of the science", p. 17.
[23] Vukosava Pekovic, Laura Seff and Max B. Rothman, "Planning for and responding to special needs of elders in natural disasters", *Generations*, vol. 31, No. 4 (Winter 2007/2008), p. 38.
[24] Earwin William A. Leyva, A. Beaman and P.M. Davidson, "Health impact of climate change in older people: an integrative review and implications for nursing", *Journal of Nursing Scholarship*, vol. 49, No. 6 (2017), p. 673.
[25] Vukosava Pekovic, Laura Seff and Max B. Rothman, "Planning for and responding to special needs of elders in natural disasters", p. 38.
[26] Submission by AGE Platform Europe, p. 3.
[27] A/HRC/42/43, para. 70.
[28] Ibid., para. 26.

16. When older persons are displaced in emergencies, some face disproportionate difficulties in returning to their homes and in accessing restitution for damage, both because of physical factors and because of ageist exclusion from humanitarian aid for rebuilding purposes.[29] When older people do move, migration and displacement in later life can be particularly traumatic, due to severed social ties and lack of facilities, rights and protection in unfamiliar new environments.[30]

17. Older persons may also be stateless or become stateless during displacement, which can have enormous implications for well-being. Some older persons face specific barriers to obtaining nationality, as legislation in some countries imposes conditions for naturalization that they may not meet. Naturalization may be dependent on passing language and other tests that pose challenges for some persons with disabilities and/or older persons.

18. Access to technology is increasingly playing an important role in human mobility. Older persons disproportionately rely on family connections and non-Internet communication sources, and often have not received the support that would enable them to adopt new technologies. They therefore have reduced access to networks and information that contribute to resilience and facilitate mobility.[31]

19. Mobility is an increasingly common response to the slow-onset effects of climate change, but older persons often have less access to this strategy. This may be due to physical limitations, unwillingness to "burden" family members during the journey or in a new location, or particularly strong ties to the lands and places where they have been living. Many older persons in areas experiencing severe climate effects have emphasized cultural and spiritual attachments, including unwillingness to abandon traditional homes and lands and unwillingness to leave behind ancestral burial grounds.[32]

20. Older persons' mobility within the areas where they are already living can also be affected by climate policy. In some countries, a significant percentage of older persons are more reliant on automobiles, which is not taken into account by climate regulations intended to discourage driving.[33] Other older persons rely on public transportation, which can face disruptions due to climate events or because of reduced availability of services as climate change burdens budgets and people move out of climate-affected areas.[34]

C. Right to adequate housing

21. Climate change also significantly impacts the spaces in which older persons live. In some areas, older persons rely on traditional building materials that are becoming less available.[35] Older persons are more likely to live in homes with insufficient heating and cooling systems to adapt to new temperature extremes or that are less energy-efficient,[36] and they disproportionately lack access to safe, clean, healthy and sustainable energy sources.[37] Measures that States put into place to promote more energy-efficient or climate-adapted homes sometimes do not include provisions necessary to ensure uptake by older persons.[38]

22. Research conducted during a number of disasters in the United States has shown that assisted living facilities for older persons are often excluded from community emergency

[29] Ibid., para. 33.
[30] HelpAge International, Climate change in an ageing world, p. 3.
[31] Ingrid Boas, "Environmental change and human mobility in the digital age", *Geoforum*, vol. 84 (October 2017).
[32] Caroline Zickgraf, "Keeping people in place: political factors of (im)mobility and climate change", *Social Sciences*, vol. 8, No. 8 (2019), p. 9, available at www.mdpi.com/2076-0760/8/8/228.
[33] Gary Haq, John Whitelegg and Mervyn Kohler, *Growing Old in a Changing Climate* (Stockholm Environmental Institute, 2008), pp. 5–6.
[34] Ibid., p. 12.
[35] Mirjam Macchi and others, *Indigenous and Traditional Peoples and Climate Change* (International Union for Conservation of Nature, March 2008), p. 21, available at www2.ohchr.org/english/issues/climatechange/docs/IUCN.pdf.
[36] Gary Haq, John Whitelegg and Mervyn Kohler, *Growing Old in a Changing Climate*, p. 6.
[37] HelpAge International, Climate change in an ageing world, p. 10.
[38] Submission by AGE Platform Europe, pp. 2–3.

preparedness planning and receive less assistance in the wake of disasters.[39] Evacuations strain the resources of facilities that take in evacuees.[40] Shelters are often not designed to accommodate the particular needs of older persons, including proximity to accessible toilet facilities or a need to stay close to family.[41] "Older adults can also be more susceptible to property damage or loss due to lack of insurance, limited personal finances, and poor creditworthiness",[42] and in the aftermath of disasters, physical limitations and exclusion from humanitarian aid can make it particularly difficult for them to rebuild and repair damaged homes.

D. Right to food

23. Climate change is having a transformative effect on food and agricultural systems all over the world, often reducing agricultural productivity and food availability, with a particular impact on older persons. Because older persons often live in poverty and on fixed incomes, they face difficulty in coping with the rising costs of food.[43] When food is scarce, some households allocate it in a way that favours younger family members, and some older persons are physically less able to access food distribution points or are left out in relief efforts.[44]

24. Climate change is altering not only the amount of food available to many people, but also the quality and types of foodstuffs available, which has impacts for older persons, who disproportionately suffer from malnutrition and may be particularly reliant on specialized diets.[45] In small island developing States, loss of agricultural land is leading to increased reliance on industrial and processed foodstuffs, which increases rates of non-communicable diseases such as diabetes in older persons. Limited access to traditional foodstuffs can also create negative impacts on the rights to health and to cultural life.[46] Emergencies and inadequate emergency responses may also aggravate the difficulties faced by older persons in obtaining the quantity, quality and variety of food necessary for their health and survival.[47]

E. Rights to water and sanitation

25. Climate change is diminishing water quality and quantity and the predictability of availability in many parts of the world.[48] Older persons are disproportionately affected by water insecurity; physical, financial and design barriers all contribute to their being underserved by existing water and sanitation services, and this will only be aggravated by climate change.[49] This will have significant health effects for older persons, who are particularly susceptible to dehydration and infectious diseases associated with poor sanitation,[50] and is also a driver of displacement.

[39] Sarah B. Laditka and others, "Providing shelter to nursing home evacuees in disasters: lessons from Hurricane Katrina", *American Journal of Public Health*, vol. 98, No. 7 (July 2008), pp. 1288 and 1290.

[40] Ibid., p. 1290.

[41] A/HRC/42/43, para. 51.

[42] Janet L. Gamble and others, "Climate change and older Americans: state of the science", p. 18.

[43] Ibid.

[44] HelpAge International, Climate change in an ageing world, p. 7.

[45] Ibid., pp. 6–7.

[46] Human Rights Watch, "Canada: climate crisis toll on First Nations' food supply", 21 October 2020, available at www.hrw.org/news/2020/10/21/canada-climate-crisis-toll-first-nations-food-supply.

[47] HelpAge International, Climate change in an ageing world, p. 7.

[48] Intergovernmental Panel on Climate Change, Special report on the ocean and cryosphere in a changing climate, available at www.ipcc.ch/srocc.

[49] HelpAge International, Climate change in an ageing world, p. 5.

[50] Ibid.

F. Rights to social protection, care and support

26. Rising frequency of disasters and extreme weather events strain social service resources and capacity, potentially detracting from care and support available to older persons.[51] Outmigration of younger people in climate-affected areas may diminish care and support for older people who remain,[52] although such migration may also in part be motivated by a desire to send back remittances for the care of older relatives.[53]

27. The Independent Expert on the human rights of older persons has drawn attention to strains on social protection systems, including pension systems for older persons, in the context of emergencies, noting the disruption in access that comes with crossing borders, as well as the difficulties presented by lost or forgotten identity documents and restrictions on mobility or challenges related to different regimes of pension portability.[54] Older migrants, especially those in irregular situations, may face an increased risk of not having access to their right to a pension or social protection.

G. Rights to decent work and livelihoods

28. While stereotypes might imagine older persons as being largely out of the workforce, the reality is that many older people cannot afford to retire and continue to work well into old age.[55] The types of labour that older persons are likely to do, including subsistence agriculture and informal labour, are particularly susceptible to climate change impacts.

29. Older persons, and particularly older women, are disproportionately reliant on subsistence agriculture for their livelihoods in many parts of the world.[56] This creates a disproportionate effect on older persons from climate impacts on agricultural productivity, and from climate change adaptation and mitigation measures that can disrupt agricultural practices, such as planned relocation and the conversion of land for biofuels production.[57]

30. Changes in the possibilities for traditional livelihoods, including cultivation, herding and handicrafts, also disproportionately affect older persons, who are often more reliant on such livelihoods and have limited access to the support needed to adapt to new ones. Losing such livelihoods affects not only economic stability, but also health, well-being and sociocultural security.[58]

31. Programmes and funding intended to address the effects of climate change on livelihoods can leave out older persons through unintentional omissions or deliberate age cut-offs. Older persons sometimes face significant competition from younger persons in such programmes, or may find that their skills and abilities are undervalued.[59]

H. Cultural rights

32. Climate change has devastating impacts on cultural traditions, practices and heritage sites.[60] While older persons are not exclusive or inherent arbiters of culture or tradition, many feel a particular and long-standing commitment to cultural practices or sites, and many communities assign a role to elders in safeguarding cultural and traditional practices and knowledge.

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[51] Gary Haq, John Whitelegg and Mervyn Kohler, *Growing Old in a Changing Climate*, p. 11.

[52] Shahnaj Begum, "Effects of livelihood transformation on older persons in the Nordic Arctic: a gender-based analysis", *Polar Record*, vol. 52 (2016), pp. 164–165.

[53] Interview with Ingrid Boas, Wageningen University, 13 November 2020.

[54] A/HRC/42/43, paras. 56–57.

[55] HelpAge International, Climate change in an ageing world, p. 6.

[56] Ibid.

[57] Ibid.

[58] Shahnaj Begum, "Effects of livelihood transformation on older persons in the Nordic Arctic: a gender-based analysis", pp. 159 and 164.

[59] A/HRC/42/43, para. 60.

[60] See, generally, A/75/298.

33. Accordingly, some older persons feel a significant loss when cultural heritage sites are lost, when culturally important foodstuffs or materials become less available, or when traditional ecological knowledge becomes unreliable due to climate change.[61] Some older persons have thus been reluctant to accept climate change adaptation measures that involve distancing from, or loss of, cultural practices or heritage sites.[62]

I. Multiple and intersecting forms of discrimination

1. Differential effects of gender

34. Both ageing and climate change have differential effects when it comes to gender. Because women tend to live longer, there are more older women than older men, and women in heterosexual partnerships tend to outlive their partners, so more older women live alone.[63] Physiological and physical differences, social norms and roles, and gender discrimination and inequities in access to resources and power all play a role in making older women face particular risk of vulnerability to climate impacts.[64]

35. Older women experience higher rates of poverty than older men and face other economic hardships that are aggravated by climate change. They also face disproportionate health risks, including a greater likelihood of experiencing chronic diseases and air pollution harms,[65] and have higher rates of mortality and other health complications from extreme heat events than any other demographic group.[66] Conversely, during typhoons, older men have been found to be more at risk of death.[67]

36. Gendered social roles and expectations have complex effects on climate risks for older people. In some societies, older men are more socially isolated and thus have more difficulty in accessing assistance to cope with the negative effects of climate change.[68] However, in situations of emergency or strained family resources brought on by climate impacts, older women are sometimes more likely to be viewed as a burden and to suffer abuse or neglect.[69] In some countries, older women are blamed for extreme weather through accusations of witchcraft or sorcery, and face violence or exclusion as a result.[70] Transformation of traditional livelihoods and of cultural and social practices also has varying effects on men and women because of their different social roles.[71] Social norms around gender orientation

[61] Karletta Chief and others, "Indigenous experiences in the U.S. with climate change and environmental stewardship in the Anthropocene", *Forest Conservation and Management in the Anthropocene: Conference Proceedings* (United States Department of Agriculture, Forest Service, 2014), p. 165; and Samantha Chisholm Hatfield and others, "Indian time: time, seasonality and culture in Traditional Ecological Knowledge of climate change", *Ecological Processes*, vol. 7 (2018), p. 7.

[62] Caroline Zickgraf, "Keeping people in place: political factors of (im)mobility and climate change".

[63] Committee on the Elimination of Discrimination against Women, general recommendation No. 27 (2010), para. 5.

[64] Ibid., para. 25.

[65] G. Adriana Perez, "The impacts of climate change take a heavier toll on older women".

[66] *Senior Women for Climate Protection et al. v. Swiss Federal Council et al.*, complaint (2016), paras. 88–95, available at https://klimaseniorinnen.ch/wp-content/uploads/2017/05/request_Klima Seniorinnen.pdf.

[67] Earwin William A. Leyva, A. Beaman and P.M. Davidson, "Health impact of climate change in older people: an integrative review and implications for nursing", p. 674.

[68] Kirsten Vinyeta and others, *Climate Change Through an Intersectional Lens: Gendered Vulnerability and Resilience in Indigenous Communities in the United States* (United States Department of Agriculture, Forest Service, December 2015), p. 34.

[69] Office of the United Nations High Commissioner for Refugees (UNHCR), *Guidance on Working with Older Persons in Forced Displacement* (2013), p. 12, available at https://cms.emergency.unhcr.org/documents/11982/43853/Working+with+Older+Persons+in+Forced +Displacment+2013/679812f8-c119-444b-9081-40ca66c08782.

[70] Evan Fraser and others, "Toil and trouble: how conflict and climate change are triggering witch hunts", *Foreign Affairs* (16 August 2015).

[71] Shahnaj Begum, "Effects of livelihood transformation on older persons in the Nordic Arctic: a gender-based analysis", pp. 159–160.

and sexual identity may also compound the negative human rights effects of climate change for lesbian, gay, bisexual, transgender and intersex older persons.

2. Older persons with disabilities

37. Climate change has a disproportionate impact on the human rights of persons with disabilities, including negatively impacting their health, food security, livelihoods, housing, and access to water and sanitation.[72] The incidence of disability rises with age: almost half of older persons worldwide are living with some form of disability, a proportion that increases as people age within the "older" age group, and older persons represent a majority of persons with disabilities.[73] Accordingly, climate change impacts on persons with disabilities are more likely to be borne by older persons.

38. There are also areas where age and disability have compounding effects. For example, older persons with disabilities disproportionately experience poor housing conditions, which aggravates their vulnerability to climate-related emergencies and temperature effects.[74] Intersecting forms of bias and discrimination can lead to invisibility of older persons with disabilities, particularly those with cognitive disabilities, and to their exclusion from policy responses.[75]

3. Racial and ethnic minorities

39. In many countries and societies around the world, racial and ethnic minorities experience disproportionate rates of poverty and discrimination and reduced access to human rights. These inequities can compound with age to multiply vulnerabilities to climate effects. For example, non-white older persons in the United States have been found to be at higher risk of heat-related mortality.[76]

4. Indigenous peoples

40. Indigenous peoples also experience high rates of poverty and discrimination, and some may be particularly affected by climate change because of the deep interconnections between their ways of living and the natural environment. Older persons in indigenous communities are sometimes more tied to traditional livelihoods, foods or cultural practices that are threatened by climate change.[77] They may experience a unique sense of loss related to the disappearance of cultural practices and traditional ways of life.[78]

III. Promoting and protecting the rights of older persons in the context of climate change

A. Legal framework

1. Key international human rights instruments

41. As detailed above, climate change has an impact on the effective enjoyment of the human rights of older persons, including the rights to life, health, food, water and sanitation, housing, decent work, culture, and development. Those rights are enshrined in international instruments including the International Covenant on Civil and Political Rights, the International Covenant on Economic, Social and Cultural Rights, the Convention on the

[72] See, generally, A/HRC/44/30.
[73] A/74/186, para. 4.
[74] A/HRC/42/43, para. 51.
[75] Interview with Caitlin Littleton, HelpAge Asia, 18 November 2020.
[76] Earwin William A. Leyva, A. Beaman and P.M. Davidson, "Health impact of climate change in older people: an integrative review and implications for nursing", p. 674.
[77] Shahnaj Begum, "Effects of livelihood transformation on older persons in the Nordic Arctic: a gender-based analysis", pp. 159–160.
[78] William Nikolakis, Quentin Grafton and Aimee Nygaardand, "Indigenous communities and climate change: a Recognition, Empowerment and Devolution (RED) framework in the Murray-Darling Basin, Australia", *Journal of Water and Climate Change*, vol. 7, No. 1 (March 2016), p. 174.

Elimination of All Forms of Discrimination against Women, the Convention on the Rights of Persons with Disabilities and the Declaration on the Right to Development. Although there is no specific treaty dedicated to the human rights of older persons, and although many of these instruments do not specifically list age as a forbidden ground of discrimination, all of these instruments protect older persons' human rights. States also have legal obligations, including under international human rights law, to implement climate policies that empower all people, including older persons, by ensuring their full and effective participation in climate action at all levels.

42. Several human rights instruments contain provisions relevant to the rights of older persons affected by climate change. Article 11 of the Convention on the Rights of Persons with Disabilities protects the equal right to humanitarian relief of persons with disabilities in the aftermath of natural disasters, while article 25 contains a specific call for health services that are designed to minimize and prevent further disabilities among older persons.[79] The International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families includes prohibitions against age discrimination in its articles 1 (1) and 7. Article 11 (1) (e) of the Convention on the Elimination of All Forms of Discrimination against Women provides for the equal right to social security for older women.

43. It is explained in general comment No. 6 (1995) of the Committee on Economic, Social and Cultural Rights that States parties to the International Covenant on Economic, Social and Cultural Rights "are obligated to pay particular attention to promoting and protecting the economic, social and cultural rights of older persons".[80] This includes special emphasis on older persons' rights in relation to work, social security, an adequate standard of living, health, education and culture.

44. The Committee on the Elimination of Discrimination against Women, in paragraph 25 of its general recommendation No. 27 (2010), draws attention to the disproportionate impacts of climate change on older women, and in paragraph 35 recommends that States "ensure that climate change and disaster risk-reduction measures are gender-responsive and sensitive to the needs and vulnerabilities of older women" and "facilitate the participation of older women in decision-making for climate change mitigation and adaptation". The same Committee's general recommendation No. 37 (2018) also contains a number of references to the need to take into account differential effects of climate change on older women.[81] The Committee has also referred to the rights of older women in its concluding observations, in regard to the human rights effects of climate change and disasters.[82]

45. Special procedure mandate holders, including the Independent Expert on the human rights of older persons[83] and the Special Rapporteur on extreme poverty and human rights[84] have begun to pay attention to the human rights impacts of climate change on older persons in their country visits, and States are also beginning to raise these issues in their recommendations under the universal periodic review. In 2019 and 2020, five recommendations suggested that States incorporate the rights of older persons in their climate policies.[85]

46. Two regional agreements specifically protect the human rights of older persons. Seven States have so far ratified the Inter-American Convention on Protecting the Human Rights of Older Persons, of 2015.[86] Article 25 of the Convention protects older persons' right to a

[79] See also A/HRC/42/43, para. 37.

[80] See para. 13.

[81] See paras. 2, 6, 26, 54 and 68.

[82] CEDAW/C/ATG/CO/4-7, paras. 10 and 51.

[83] A/HRC/42/43/Add.2, paras. 35 and 89; A/HRC/39/50/Add.2, para. 98; A/HRC/36/48/Add.2, para. 99; and A/HRC/33/44/Add.1, para. 97.

[84] A/HRC/44/40/Add.1, paras. 83, 85 and 86.

[85] A/HRC/44/13, para. 94.68; A/HRC/42/9, para. 104.63; A/HRC/42/12, para. 11.46; A/HRC/42/4, para. 95.29; and A/HRC/42/13, para. 122.52.

[86] Available at www.oas.org/en/sla/dil/inter_american_treaties_a-70_human_rights_older_persons.asp#:~:text=The%20purpose%20of%20this%20Convention,integration%2C%20and%20participation%20in%20society.

healthy environment, while article 29 provides for older persons' safety, needs and participation, in situations of risk and humanitarian emergencies. The Independent Expert on the human rights of older persons has hailed the Convention as an example of good practice.[87]

47. The Protocol to the African Charter on Human and Peoples' Rights on the Rights of Older Persons in Africa[88] was adopted in 2016. Article 14 provides for protection of older persons in conflict and disaster situations, obliging States to ensure that in emergencies older persons are among those to enjoy access, on a priority basis, to assistance, and that they receive humane treatment, needed medical care, protection and respect at all times.[89] Further, article 9 (2) of the African Union Convention for the Protection and Assistance of Internally Displaced Persons in Africa requires States to provide special protection and assistance to internally displaced older persons.

2. Other relevant legal and policy frameworks

48. While many international instruments do not make specific reference to older persons and their human rights, there are several international legal and policy documents that do express a commitment to respond to the opportunities and challenges of population ageing. The Madrid International Plan of Action on Ageing is the primary global document addressing the concerns of older persons. The Independent Expert on the enjoyment of all human rights by older persons has explained that the Plan of Action is not sufficient to ensure the full enjoyment of human rights by older persons.[90] However, it does adopt "a conceptual approach that is in accordance with human rights principles", and reaffirms the protection of certain rights,[91] including the rights to participation, work, health, independence, and accessibility. The Plan of Action does not include explicit reference to climate change, but it does identify emergencies as an issue area, and calls upon States to recognize both the vulnerabilities and the capabilities of older persons in emergency situations.[92] It also addresses the needs of older persons with regard to rural development, migration and urbanization[93] and references the disproportionate health burden that environmental pollution presents for older people.[94]

49. In December 2020, the decade from 2021 to 2030 was proclaimed the United Nations Decade of Healthy Ageing, an initiative designed to foster concerted, catalytic and collaborative action to improve the lives of older people, their families, and the communities in which they live.[95] The United Nations Decade of Healthy Ageing presents opportunities to ensure global attention to older persons' human rights as well as to policy coherence on actions to realize those rights in the context of climate change, including through the Decade's priority areas on addressing ageism and fostering an age-friendly environment.

50. While specific reference to older persons is absent from the United Nations Framework Convention on Climate Change, the Paris Agreement and other global climate (including climate finance) frameworks, there do exist certain international legal and policy frameworks relevant to climate change that include specific provisions for older persons. The 2030 Agenda for Sustainable Development and the Sustainable Development Goals reference older persons, notably in Goal 3, although none of the targets or indicators for Goal 3 specifically refer to older persons. The Sendai Framework for Disaster Risk Reduction recognizes the importance of including older persons and utilizing their knowledge, wisdom

[87] A/HRC/33/44, para. 22.
[88] Available at https://au.int/en/treaties/protocol-african-charter-human-and-peoples-rights-rights-older-persons.
[89] A/HRC/42/43, para. 39.
[90] A/HRC/33/44, para. 123.
[91] Ibid., para. 96.
[92] Madrid International Plan of Action on Ageing, para. 54 ff., available at www.un.org/esa/socdev/documents/ageing/MIPAA/political-declaration-en.pdf.
[93] Ibid., para. 29 ff.
[94] Ibid., para. 65.
[95] World Health Organization, "Decade of Healthy Ageing", available at www.who.int/initiatives/decade-of-healthy-ageing#:~:text=The%20United%20Nations%20Decade%20of,of%20older%20people%2C%20their%20families%2C.

and skills.[96] The global compacts on refugees and for safe, orderly and regular migration both highlight older persons' particular needs and their participation,[97] and address the links between migration, disasters, climate change and environmental degradation.[98] The Guiding Principles on Internal Displacement emphasize that older persons are entitled to specific protection and assistance and to treatment that takes into account their special needs.[99] Finally, the Office of the United Nations High Commissioner for Refugees has also incorporated special attention to older persons into its policy frameworks.[100]

B. Older persons' power in addressing the adverse impacts of climate change

51. Meaningful and effective climate action requires the participation of all affected communities and groups, as guaranteed by international human rights law. It is essential to respect, protect and fulfil older persons' participation rights, and to create meaningful opportunities for their involvement in climate action, including by taking the necessary steps to provide them with relevant climate information and to overcome barriers to their inclusion.

52. Older persons bring unique and important contributions to climate action. They often support their families and communities financially and through informal care work, and contribute to decision-making and conflict resolution. Older persons possess important knowledge of science, history, tradition and culture that can inspire and support climate actions by current and future generations.[101] They also wield significant voting and economic power that can be mobilized for effective climate policy.

1. Older persons as advisers and custodians of knowledge

53. It is important to avoid falling into the traps of stereotypes, including those that characterize all older persons, and especially older indigenous persons, as holding innate wisdom or knowledge. However, it is also true that many older persons have accumulated years of knowledge, and that in certain communities older persons are sometimes assigned a specific role as keepers of traditional knowledge related to the environment. Some older persons also possess important knowledge about how to practise more sustainable lifestyles, including relying less on material goods and using and reusing materials sustainably, making them important participants and potential leaders in the transition to circular economies.[102]

54. Traditional environmental knowledge has the potential to play a crucial role in mitigating and adapting to climate change. "Traditional knowledge is useful in: defining earlier environmental baselines, identifying impacts that need to be mitigated, providing observational evidence for modelling, providing technologies for adapting, and for identifying culturally appropriate values for protection from direct impacts or from the impacts of adaptation measures themselves."[103] It may include understanding of weather patterns and of the signals that presage coming disasters, methods of reducing the risk of and surviving such disasters,[104] and agriculture and herding methods that create less environmental harm while maintaining production levels.[105] Traditional environmental knowledge can also include a holistic understanding of the natural ecosystem, giving greater

[96] Sendai Framework for Disaster Risk Reduction, para. 36, available at www.preventionweb.net/files/43291_sendaiframeworkfordrren.pdf.

[97] See www.unhcr.org/the-global-compact-on-refugees.html and General Assembly resolution 73/195.

[98] See General Assembly resolution 73/195.

[99] A/HRC/42/43, para. 43.

[100] UNHCR, Policy on older refugees, available from www.unhcr.org/older-persons.

[101] UNHCR, *Guidance on Working with Older Persons in Forced Displacement* (2013), p. 3; see also A/HRC/42/43, para. 35.

[102] Submission by AGE Platform Europe, p. 3.

[103] Terry Williams and Preston Hardison, "Culture, law, risk and governance: contexts of traditional knowledge in climate change adaptation", *Climatic Change*, vol. 120 (2013), p. 532.

[104] Joseph U. Almazan and others, "Coping strategies of older adult survivors following a disaster", *Ageing International*, vol. 44 (2019), p. 148.

[105] HelpAge International, Climate change in an ageing world, p. 6.

visibility to environmental changes and to human responsibility for them.[106] Traditional knowledge that incorporates a longer time scale may also help to generate adaptability to climate change, by recognizing that people are accustomed to living in a shifting environment.[107]

2. Expertise and leadership

55. In addition to knowledge, many older persons have acquired experience, skills and capabilities that allow them to make significant contributions to climate action. Many of the most powerful and wealthy persons in the world, including Heads of State and business and community leaders, fall within the older age group. This cohort wields enormous resources that can be invaluable when seeking climate solutions and addressing the negative human rights impacts of climate change. Being among those who have benefited significantly from the conditions that caused climate change, they bear a human rights responsibility to address its negative consequences.

56. While young activists have deservedly received a good deal of attention and accolades for their innovative and courageous climate action, growing movements of older persons are also involved in climate activism, often motivated by concerns regarding the legacy they might leave behind.[108] Older persons have initiated climate litigation, relying on the fact that heat-related effects of climate change are already disproportionately impacting them.[109] They also participate in protests and other forms of political action, and generate innovative forms of activism.[110] Older persons' activism can be effective because they can subvert social stereotypes around old age, including both those that lead to greater respect and those that cause older persons to be underestimated.[111] They may be able to build intergenerational solidarity in the climate movement, because young people appreciate their counsel and seek their validation.[112] Older persons who are in positions of power can use those positions to amplify the voices of younger people and other voices that are often neglected in climate action.[113]

57. A number of social and psychological factors also make older persons well placed to contribute to climate solutions. Older adults who are retired may have time to devote to fully educating themselves on climate issues and becoming involved in climate action.[114] Some have developed significant problem-solving and caregiving skills, including the ability to mitigate negative emotions,[115] to change their mind in the light of new information and adopt new perspectives, to fairly mediate disputes,[116] and to employ long-term thinking and planning.[117]

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[106] Samantha Chisholm Hatfield and others, "Indian time: time, seasonality and culture in Traditional Ecological Knowledge of climate change", p. 8.

[107] Frank Duerden, "Translating climate change impacts at the community level", *Arctic*, vol. 57, No. 2 (June 2004), p. 208.

[108] Howard Frumkin, Linda Fried and Rick Moody, "Aging, climate change, and legacy thinking", *American Journal of Public Health*, vol. 102, No. 8 (August 2012).

[109] Cordelia Christiane Bahr and others, "KlimaSeniorinnen: lessons from the Swiss senior women's case for future climate litigation", *Journal of Human Rights and the Environment* (September 2018), p. 203, available at www.elgaronline.com/view/journals/jhre/9-2/jhre.2018.02.04.xml.

[110] Larraine Larri and Hilary Whitehouse, "Nannagogy: social movement learning for older women's activism in the gas fields of Australia", *Australian Journal of Adult Learning*, vol. 59, No. 1 (April 2019), pp. 36–37.

[111] Interview with Judi Summers and Cherry Hardacker, Knitting Nannas against gas and greed, 11 November 2020; and see Larraine Larri and Hilary Whitehouse, "Nannagogy: social movement learning for older women's activism in the gas fields of Australia", p. 32.

[112] Interview with Judi Summers and Cherry Hardacker, Knitting Nannas against gas and greed.

[113] See www.theelders.org/news/it-will-take-all-us-never-too-young-lead-climate-crisis.

[114] Interview with Judi Summers and Cherry Hardacker, Knitting Nannas against gas and greed.

[115] Odeya Cohen and others, "Community resilience throughout the lifespan: the potential contribution of healthy elders", *PLoS ONE*, vol. 11, No. 2 (4 February 2016), p. 11.

[116] Howard Frumkin, Linda Fried and Rick Moody, "Aging, climate change, and legacy thinking", p. 1435.

[117] Ibid.

58. Older persons' contributions help communities recover and develop resilience when under threat of or in the aftermath of climate-related disasters.[118] They may be able to build on previous experiences of disasters or other threats.[119] One study found that older persons in flood-prone areas were "4.49 times more likely to have an emergency evacuation plan and have a three-day supply of medications compared to their younger counterparts".[120]

IV. Promising practices

59. Stakeholders who responded to the call by OHCHR for inputs identified a number of practices by States and other actors that take into account the differential effects of climate change on the human rights of older persons, while also largely recognizing that this is a policy area that is deserving of greater study and attention.

60. A number of stakeholders identified efforts to integrate consideration of older persons in environmental and sustainability planning. The national climate change adaptation plans of Finland and Slovakia require consideration of the perspective of groups at risk, including older persons,[121] and the plan of Switzerland includes measures for reducing the impacts of heatwaves for older persons.[122] Bangladesh has included attention to older persons in the provisions of a number of climate and disaster laws and policies.[123] Mexico has incorporated respect for the rights of older persons in the implementation of its nationally determined contribution under the Paris Agreement, in its strategies relating to forests and deforestation[124] and in a programme providing support specifically to older farmers engaged in sustainable agricultural practices.[125] The city of Cologne, in Germany, has developed a "heat plan of action for older persons", while Manchester, in the United Kingdom of Great Britain and Northern Ireland, has included climate action in its "Age-Friendly Strategy".[126]

61. Other stakeholders have integrated older persons in disaster risk reduction and disaster response. Cambodia prioritizes older persons in disaster evacuation,[127] and in the Philippines, the National Economic and Development Authority mandates the collection of age-disaggregated data in its Disaster Rehabilitation and Recovery Planning Guide.[128] Civil society initiatives in Cambodia, El Salvador, Nicaragua and the Philippines seek to take older persons into account in disaster response and risk reduction.[129] In Bangladesh, the non-governmental organization Young Power in Social Action, which provides housing assistance to climate-displaced persons, includes presence of older persons within a family in its criteria for prioritizing aid recipients.[130]

62. Stakeholders identified promising practices with regard to access to climate information. For example, Iraq has launched media campaigns to inform older persons of risks related to infectious and communicable diseases,[131] and in Mexico, the Social Security Institute has developed information materials on environmental matters for older persons.[132]

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[118] See, generally, Odeya Cohen and others, "Community resilience throughout the lifespan: the potential contribution of healthy elders".

[119] Ibid., p. 2; and Joseph U. Almazan and others, "Coping strategies of older adult survivors following a disaster".

[120] Earwin William A. Leyva, A. Beaman and P.M. Davidson, "Health impact of climate change in older people: an integrative review and implications for nursing", p. 673.

[121] Submission by Finland, p. 3; and submission by the Slovak National Centre for Human Rights, p. 3.

[122] Submission by Switzerland, p. 2.

[123] Submission by Young Power in Social Action, p. 3.

[124] Submission by Mexico, pp. 6 and 8.

[125] Ibid., pp. 22–28.

[126] Submission by AGE Platform Europe, pp. 4–5.

[127] Submission by the Ministry of Social Affairs, Veterans and Youth Rehabilitation of Cambodia, p. 3.

[128] Submission by the Commission on Human Rights of the Philippines, p. 3.

[129] Submission by the Office for the Defence of Human Rights of El Salvador, pp. 5–6; submission by the Ministry of the Environment of Cambodia, pp. 2–3; and submission by the Commission on Human Rights of the Philippines, p. 5.

[130] Submission by Young Power in Social Action, pp. 3–5.

[131] Submission by Iraq, p. 4.

[132] Submission by Mexico, p. 29.

63. Older persons have engaged in a wide variety of climate action, and have formed bonds of intergenerational solidarity with others. Some States have promoted or facilitated such participation and solidarity. For example, Cambodia has facilitated older persons' associations for community-level action, including around climate change,[133] while the "My Experience" counselling programme in Iraq aims to build on the experience of older persons and foster intergenerational connections.[134]

V. Conclusions and recommendations

A. Conclusions

64. **While older persons are heterogeneous and not inherently vulnerable, a number of factors can increase their risk related to the negative human rights impacts of climate change. Climate change effects can impair the realization of older persons' rights to life, health, food, water and sanitation, housing, freedom of movement, livelihoods, social protection, development and culture, among others. These impacts can be magnified by multiple and intersecting forms of discrimination, including on the basis of gender, race and ethnicity, disability, and migration status.**

65. **Climate change impacts can also be magnified by ageism, poverty and social exclusion. Too many older persons live in situations of vulnerability as a result of lack of access to resources, neglect, and abuse. Absence of a binding international instrument specifically protecting the human rights of older persons and minimal references to older persons in key international climate instruments attest to the lack of attention to and visibility of older persons in national and international law.**

66. **Older persons possess enormous knowledge, experience, skills and resilience that give them the capacity to be key contributors in global efforts to mitigate and adapt to the negative impacts of climate change. Cultivating and enabling older persons' participation in climate action is not only a human rights imperative, but also a means of ensuring effective solutions for all people and for the planet.**

B. Recommendations for States and other stakeholders

67. **Strengthen the international legal system and action for the protection of older persons, through the following actions:**

(a) **Engage in systematic, specific, empirical research on the effects of climate change on older persons and their human rights and use age-inclusive indicators to collect data disaggregated by gender, disability and age, including further disaggregation within the over-60 age category;**

(b) **Include the rights of older persons in future decisions of the Conference of the Parties to the United Nations Framework Convention on Climate Change and other climate policy agreements, including climate financing agreements, in line with commitments under the Paris Agreement and international human rights law;**

(c) **Consider the adoption of an international legal instrument protecting the human rights of older persons and, towards this end, accelerate progress under the Open-ended Working Group on Ageing as mandated by General Assembly resolution 67/139, paying specific attention to the impact of climate change on older persons and ensuring their right to a safe, clean, healthy and sustainable environment;**

(d) **Ensure policy coherence and integration between environmental and sustainability commitments and initiatives aimed at addressing the needs of older**

[133] Submission by the Ministry of the Environment of Cambodia, p. 2.
[134] Submission by Iraq, p. 3.

persons, such as the World Health Organization's age-friendly cities initiative and the United Nations Decade of Healthy Ageing (2021–2030).

68. **Take urgent, meaningful and ambitious action to mitigate and adapt to climate change that protects the human rights of all, including the human rights of older persons, through the following actions:**

(a) **Prepare, commit to and implement ambitious climate action plans to limit global warming to no more than 1.5°C, including by taking immediate action to reduce dependency on fossil fuels, and to address the negative human rights impacts that are already occurring;**

(b) **Ensure that climate change and disaster risk reduction measures are age- and gender-responsive and disability-inclusive and take into account the needs and rights of older women and men;**

(c) **Ensure that efforts to address the human health impacts of climate change include consultation with older persons and organizations working on their rights. Engage in public health messaging that is gender-responsive, relevant and accessible to older persons;**

(d) **Include older persons in policymaking and planning in order to create sustainable infrastructure, local spaces, and communities that take into account the needs and rights of older persons;**

(e) **Ensure high-quality universal health care and other social services for older persons and social protection systems that take into account climate effects and build resilience;**

(f) **Enable older persons' participation in a just transition to sustainable livelihoods, including by facilitating their participation in job training and skills-building programmes, and their access to relevant credit and resources;**

(g) **With the participation of community elders, take concrete action to preserve cultural heritage and traditional and indigenous knowledge that is threatened by climate change.**

69. **Enable and support older persons' participation in climate action, through the following actions:**

(a) **Invest in climate communication and education for older persons, including via targeted communications around extreme weather events and emergencies, and ensure that such efforts are accessible to older persons with disabilities;**

(b) **Support diversity and the inclusion of older persons in the composition of national delegations to processes under the United Nations Framework Convention on Climate Change;**

(c) **Find and institutionalize new and creative ways to include older persons in environmental volunteerism and efforts to combat climate change, including by addressing potential participation barriers such as mandatory retirement ages;**

(d) **Support capacity-building for older persons to maximize their voice, confidence and negotiation skills, and provide quality later-in-life learning opportunities that foster greater understanding among older persons who are concerned for the sustainability of their communities in the face of climate change;**

(e) **Facilitate intergenerational dialogue around climate change and the environment;**

(f) **Incorporate traditional knowledge into climate solutions, with indigenous peoples' free, prior and informed consent, and ensuring that benefits of the use of such knowledge, including financial benefits, are equitably allocated to communities and older persons.**

Annex 487

Building Resilience in Small Island Developing States, A compendium of research prepared by the UNCTAD Division for Africa, Least Developed Countries and Special Programmes, UNCTAD/ALDC/INF/2022/2, 31 January 2022, pages 15-17

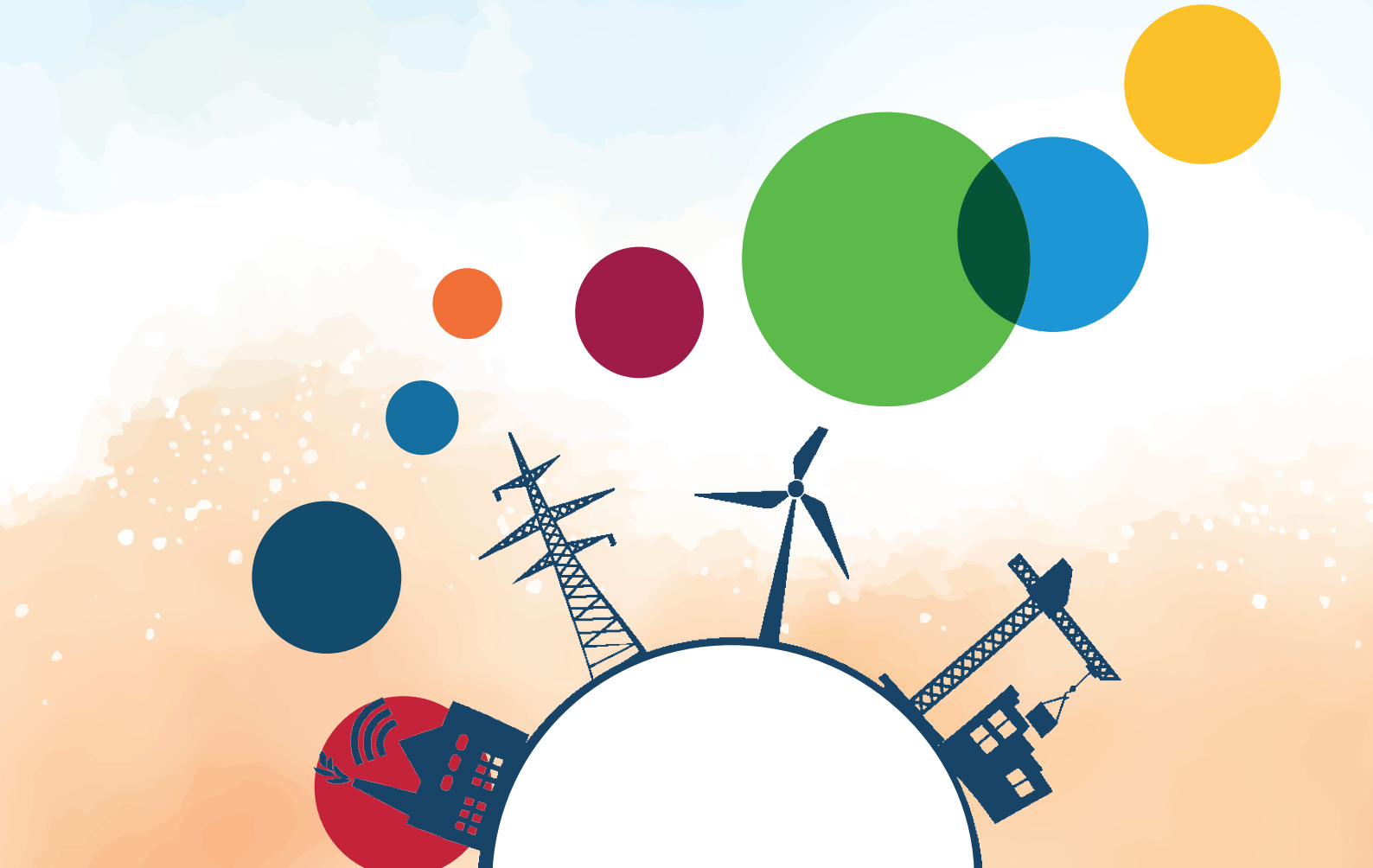
UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

UNCTAD

Building resilience in small island developing States

A compendium of research prepared by the

UNCTAD Division for Africa, Least Developed Countries and Special Programmes



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This publication has not been formally edited.

UNCTAD/ALDC/INF/2022/2

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1. 1. INTRODUCTION

Small Island Developing States (SIDS) face severe structural challenges to their sustainable development. The United Nations recognizes 38 SIDS[6], which include some of the poorest and most isolated countries in the world, with relatively small populations and narrow endowments of land and natural resources.

The size and geographic isolation of SIDS underpin their unifying trait: extreme vulnerability to environmental and economic shocks. For example, SIDS were hit hard by the 2008-2009 global financial crisis, from which they had not fully recovered by the time the COVID-19 pandemic plunged the global economy into recession. Compounding these economic shocks, SIDS are at the front line of climate change, reaping the mounting consequences of an anthropogenic environmental crisis for which they bear extremely little responsibility.

The need to reduce vulnerability and build resilience to external shocks has guided collective efforts by SIDS and the international community. As part of the 2030 Agenda for Sustainable Development, the United Nations devoted an intergovernmental process to assisting SIDS, from which the most recent outcome document is the wide-ranging 2014 SIDS Accelerated Modalities of Action (SAMOA) Pathway, intended to guide international action towards sustainable development in SIDS.

Using a simple evaluation framework, we seek to complement the general vision contained in the Pathway, offering more detailed analysis and guidance on alternative economic development strategies for SIDS, in the context of global value chains and the Fourth Industrial Revolution. On the basis of our analysis, we outline alternative strategies for different types of SIDS, including examples of new sectors, activities and technologies for development. To support these strategies, we recommend policies necessary for SIDS to build their competitiveness in new industries.

This chapter does not presume to prescribe short-term fixes to the unique challenges facing SIDS. Instead, the analysis and recommendations are intended to reinforce an ongoing strategic planning process in SIDS, towards long-term, sustainable economic development.

1.2. VULNERABILITY AND THE NEED TO BUILD RESILIENCE

Vulnerability is the defining characteristic of SIDS. In this section, we review some of the main forms of environmental and economic vulnerability that constrain their sustainable development. We echo the call for collective action, contained in the SAMOA Pathway, to build the resilience of SIDS to external shocks.

1.2.1. Climate change

Anthropogenic climate change is a persistent and growing threat to SIDS. Mainly comprising islands with low-lying coasts, SIDS already suffer disproportionately from changes to oceans and coastal ecosystems.

In many SIDS, extreme weather events are a huge, unceasing threat not only to economic development, but to life and limb. Indeed, the 2020 World Risk Report ranked eight SIDS among the 10 countries at greatest risk of natural disasters, principally extreme weather events (Behlert, et al., 2020).

The scale of damage caused by recurrent natural disasters can be economically crippling in SIDS. In 2017, for example, in addition to the deplorable loss of life, displacement and everyday privations it inflicted, Hurricane Maria caused physical damage in Dominica estimated at 225 per cent of its gross domestic product (GDP). Meanwhile, in Vanuatu, there was a relatively short period between category-5 Tropical Cyclones Pam (2015) and Harold (2020), each of which caused damage equivalent to 70 per cent of the country's GDP (Government of Vanuatu, 2015; Government of Vanuatu, 2020).

5. For further reference, please see the article by Terauds and Zhauwu (2021, forthcoming) on "Identifying alternative economic development strategies for diverse SIDS".
6. United Nations Members classified as SIDS by the United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States (UN-OHRLLS). Please see Table A.1. (Annex A) for the full list.

Looking forward, the Intergovernmental Panel on Climate Change predicts more frequent and severe extreme weather events in ocean regions (IPCC, 2019). Predicted increases in sea surface temperatures, for example, imply that the threshold level for the formation of hurricanes or cyclones – around 26°C – will be reached more often (while any greater temperature rise will be associated with increased storm intensity accordingly).

Sea level rise is another major climate change threat to SIDS. For example, 80 per cent of the Maldives lies just one meter or less above sea level, meaning that, even under the IPCC's best-case projection – of an average sea level rise of 0.43m by 2100 – 77 per cent of the country's land area is at risk of being submerged by the end of the century. Other SIDS in a comparable predicament are Kiribati (average 1.8m above sea level), the Marshall Islands and Tuvalu (both two meters).

Through these observed and predicted effects, climate change threatens SIDS with the degradation of coastal ecosystems, and a loss of habitat and biodiversity. Threats to human life include the loss of ecosystem services, such as fisheries or the supply of freshwater, shocks to food production and employment, as well as damage to housing stock and coastal infrastructure.

1.2.2. COVID-19

The pandemic hit SIDS particularly hard. As well as the consequent loss of life and the burden on health systems, the crisis demonstrated the severe vulnerability of SIDS to economic shocks. The United Nations World Tourism Organization (UNWTO) estimates that pandemic travel restrictions caused year-on-year international tourist arrivals to fall worldwide by 70 per cent from January to August 2020, representing losses of US$730 billion – eight times the losses the tourism sector incurred during the 2008-2009 global economic crisis – and putting well over 100 million jobs at risk[7].

In parallel, the World Trade Organization (WTO) estimated in October 2020 that total merchandise trade volume would decline by 9.2 per cent in 2020 because of the pandemic[8]. The trend in services trade is more severe, with an estimated year-on-year decline of 23 per cent (overshadowing the nine per cent decline suffered during the 2008-2009 global financial crisis)[9]. The decline in service trade was exacerbated by restrictions on travel, with a catastrophic effect on international tourism. SIDS keenly felt these pandemic-related contractions, which impacted tourism and trade, undermining their main sources of foreign exchange, staples and employment, and pitching large numbers of people into precarity and food insecurity[10].

1.2.3. Debt

Spending requirements for responses to the acute COVID-19 crisis, piled on top of the chronic needs in SIDS for climate change adaptation, have exacerbated a debt overhang in many countries, threatening an outright debt disaster. Prior to the pandemic, many SIDS already had high debt service costs, leaving them with little fiscal space to respond and plunging some countries into liquidity crises by mid-2020.

Without short-term injections of liquidity and debt relief (through the year 2021, at least), many SIDS governments feared their liquidity problems could escalate into insolvency (United Nations, 2020b). Over the medium to long term, SIDS require debt restructuring and a new arrangement to access concessionary finance and aid, which has customarily been conditional upon income-based criteria, without regard for vulnerability or debt distress. Without a new arrangement on debt, SIDS face a series of impossible choices, as they allocate inadequate segments of insufficient resources to COVID-19 response, disaster recovery, climate change adaptation and sustainable development objectives under the 2030 Agenda for Sustainable Development (Slany, 2020).

7. United Nations World Tourism Organization (UNWTO). 2020. International tourism down 70% as travel restrictions impact all regions. Blog entry. 27 October. Available at:www.unwto.org/news/international-tourism-down-70-as-travel-restrictions-impact-all-regions. Retrieved 24 November 2020.

8.World Trade Organization (WTO). 2020. Trade shows signs of rebound from COVID-19, recovery still uncertain. Press release 862, 6 October. Available at: www.wto.org/english/news_e/pres20_e/pr862_e.htm. Retrieved 27 October 2020

9. Ibid..

10. Food and Agriculture Organization of the United Nations (FAO). 2020. Small Island Developing States Response to COVID-19. Policy brief. 7 May. Available at: www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1275322/. Retrieved 20 August 2020.

1.2.4. Economic vulnerability

A key factor in the economic vulnerability of SIDS is their dependence on capital inflows and trade. For example, in most SIDS, foreign aid and remittances represent a larger share of GDP than the average in other developing countries and Least Developed Countries (LDCs). Reliance on foreign direct investment (FDI) flows is more heterogeneous, with SIDS in the Pacific attracting little FDI, relative to those in Africa and the Caribbean (McGillivray, Naudé, & Santos-Paulino, 2010).

Similarly, SIDS are among the most trade-dependent economies in the world. Among the 37 SIDS profiled in this chapter, the average trade-to-GDP ratio in 2018 was 97 per cent[11], while 12 SIDS had ratios above 100 per cent. Over the past 15 years, the combination of these high ratios and commodity export dependence meant all but five of the 37 SIDS incurred persistent trade deficits[12].

SIDS have tried to integrate into global value chains, as well as to increase and upgrade domestic value, but these efforts have largely foundered on the lack of competitiveness that stems from high transaction costs, low productivity and low-quality goods and services (Lanz & Werner, 2016).

As a result, among the 145 countries included in the 2018 Economic Vulnerability Index (EVI) – calculated as one of the three criteria for the identification of LDCs – 25 of the 40 most vulnerable countries were SIDS, including eight of the 10 most vulnerable. Even relatively wealthy SIDS, such as Bahrain (62nd most vulnerable) and Singapore (87th), were far from the ranks of the least vulnerable, such as the Republic of Korea (144th) or Turkey (145th)[13].

1.2.5. Building resilience

The consensus view (among SIDS and the international community) is that these chronically vulnerable countries can only achieve sustainable development if they build their resilience to environmental and economic shocks. The mounting severity of these shocks in recent years has served to amplify the urgency of their calls for action.

A robust intergovernmental process in the United Nations system has generated consensus and calls to action on building resilience and fostering sustainable development in SIDS. The resulting programme of action is contained in the SIDS Accelerated Modalities of Action (SAMOA) Pathway of 2014. The Pathway is appropriately ambitious, acknowledging SIDS' vulnerabilities and proposing a wide-ranging programme of action on their economic, environmental and social priorities. This includes alternative economic development strategies – "taking into account… individual country circumstances and legislation"[14]– to achieve the level of economic growth and job creation necessary to underpin the proposed programme.

This chapter seeks to identify these new economic development strategies for SIDS as part of the resilience-building effort envisioned in the SAMOA Pathway. Economic development strategies provide a blueprint for governments and incentives for the private sector to invest in new industries and infrastructure, ideally spurring a self-reinforcing cycle of economic growth, increased productivity and wages, followed by upgrading and diversification into new industries. This cycle equates to the structural transformation of an economy sufficiently resilient to sustain development in the long run.

1.3. IDENTIFYING ALTERNATIVE ECONOMIC DEVELOPMENT STRATEGIES FOR SIDS

This section begins by outlining the methodology and results from the simple evaluation framework we used for our study. The latter subsections analyse the results with a view to identifying alternative development strategies for SIDS.

11.Source: World Bank and OECD national accounts data.
12.Source: International Monetary Fund, Balance of Payments Statistics Yearbook
13.Secretariat of the Committee on Development Policy. LDC Data. Available at: www.un.org/development/desa/dpad/least-developed-country-category/ldc-data-retrieval.html. Retrieved 20 August 2020.
United Nations General Assembly. 2014. Resolution 69/15: Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway. Available at: https://sustainabledevelopment.un.org/sids2014/samoapathway. Retrieved 27 August 2020.

14.United Nations General Assembly. 2014. Resolution 69/15: Small Island Developing States Accelerated Modalities of Action (SAMOA) Pathway. Available at: https://sustainabledevelopment.un.org/sids2014/samoapathway. Retrieved 27 August 2020.

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"Barbados: Human development summary", *United Nations Development Programme,* 8 September 2022



BARBADOS

Overview

At just 166 square miles with 287,375 residents, Barbados is the most densely populated country in the Eastern Caribbean. The country is characterised by relatively high human development, a stable political climate, strong governance systems and high levels of transport and technological connectivity.

Thanks to ongoing support from the Government and people of Barbados, the island hosts the UNDP Multi-Country Office which serves seven independent countries and three British Overseas Territories in the Eastern Caribbean.

Main Initiatives

The UNDP programme portfolio in Barbados spans two of the four outcomes of the UN's regional Multi-Country Sustainable Development Framework (MSDF). These two outcomes are building climate resilience and improving data-driven decision-making for enhanced citizen security. In this regard, UNDP's work in Barbados is focused on sustainable energy, disaster recovery, the blue economy and citizen security.

Recently, UNDP has supported the COVID-19 emergency response by partnering with the Government in the production of a Human and Economic Assessment of Impact (HEAT) Report, with the collaboration of UNICEF and UN Women. The assessment concludes that the Government of Barbados has made significant strides in its crisis response and offers a range of fiscal, regulatory and social policy proposals aimed at accelerating post-COVID-19 recovery and mitigating the impacts on the country's socio-economic fabric. The support package of UNDP also includes assistance to MSMEs under the "eFUTURE" platform, in order to advance their transition to digital business models and incorporates a collaboration with the local private sector to develop an economic recovery strategy.

Additionally, UNDP is technically and financially supporting Micro, Small and Medium Enterprises (MSMEs) within ten countries and territories that are directly or indirectly linked to the tourism sector or have been significantly impacted by the COVID-19 pandemic, through the Future Tourism project. With gender equality and empowerment of women at its core, the project seeks to promote economic diversification, job creation and resilience with the "Blue Economy for Green Islands" approach in the tourism sector thereby boosting recovery and supporting the digitally enabled transformation of the business processes and value chains of MSMEs.

n conjunction with national stakeholders in the energy sector, UNDP is assisting Barbados in its efforts to meet its international commitments to reduce fossil fuel dependence and its national goal to be 100% renewable by 2030. The Global Environment Facility (GEF), champions these efforts by implementing initiatives that strengthen the renewable energy policy framework and develop sector capacities such as the deployment of solar photovoltaic systems at emergency shelters and healthcare facilities. At the community level, the GEF Small Grants Programme (GEF-SGP) aids locally-based projects in biodiversity conservation, climate change mitigation and adaptation, prevention of land degradation, protection of international waters, and the reduction of the impact of chemicals and waste.

With the financial support of the Government and the People of Japan, UNDP will be strengthening national coastal management capacities with regard to Sargassum influxes.

UNDP is also working with local partners to improve disaster recovery planning through the strengthening of national recovery frameworks. This involves building the capacity of national stakeholders to undertake PDNAs as well as improving community resilience through local training in emergency response. All of these interventions are guided by the UNDP Gender Equality Strategy and focus on empowering women to take a more proactive role in emergencies.

The Barbados MCO is also home to one of UNDP's 91 global Accelerator Labs in 115countries around the World. The Barbados and Eastern Caribbean Accelerator Lab focuses on co-creating solutions to challenges In key sectors of the Blue Economy such as fisheries, waste management, tourism and marine conservation.

In addition to this, through the Blue Economists Programme, the University of the West Indies and UNDP collaborated with the former Ministry of Maritime Affairs and the Blue Economy (MMABE), now the Ministry of Environment and National Beautification, Blue and Green Economy to conduct a Blue Economy Scoping Study. This study provided a preliminary assessment of current blue sectors and identified opportunities for growth and development in the future.

Citizen security is a key focal area. UNDP, with the support of USAID, is working with national stakeholders in the justice sector to execute the CariSECURE project locally.

In addition, Barbados presently benefits from three UN joint programmes:

1. The SDG-funded Enhancing Resilience and Acceleration of the SDGs in the Eastern Caribbean: Universal adaptive social protection modelled at the community, national and sub-regional levels (UN Women, UNDP, WFP, ILO, UNICEF). Important actions undertaken include an assessment of the social protection system to create better linkages with the disaster management framework enabling better support to vulnerable persons (adaptive social protection), an assessment of the Government's social protection response to COVID19 and an examination of the financing framework required to support gender-sensitive adaptive social protection. Key capacity building actions focused on gender-sensitive budgeting for adaptive social protection.

2. The UN Trust Fund for Human Security supported Building Effective Resilience for Human Security in the Caribbean Countries: The Imperative of Gender Equality and Women Empowerment in a Strengthened Agriculture (and related Agri/Fisheries Small Business) Sector which seeks to enhance human security by advancing comprehensive and gender-responsive development with a focus on key economic sectors in the Caribbean, including farming, fishing, agri-fisheries and related small business activities (UNDP, UN Women, FAO, ILO), where UNDP undertook a study of

the impact of structural adjustment programmes and policies on the agriculture sector and small and women farmers. Key actions involved working with the Barbados Agricultural Society to develop a management information system for farm records, piloting and undertaking relevant training.

3. The SDG Fund supported Harnessing Blue Economy Finance for SIDS Recovery and Sustainable Development (UNDP, UNEP, FAO), where UNDP as the lead is supporting the development of national integrated finance frameworks for financing the blue economy.

Stockholm+50 National Consultations, Barbados

UNDP Barbados and the Eastern Caribbean is partnering with the Government of Barbados to facilitate a series of national consultations to inform the international Stockholm+50 consultations. These consultations are supported by the Government of Sweden and in partnership with the Ministry of Environment and National Beautification. The objective of the national consultations is to stimulate an inclusive whole-of-society and whole-of-government dialogue on the main themes of Stockhom+50 to inform the international meeting entitled "Stockholm+50: a healthy planet for the prosperity of all – our responsibility, our opportunity", in Stockholm on 2 and 3 June 2022, during the week of World Environment Day. Barbados is one of only two Caribbean islands that will be participating in this global initiative. Therefore, Stockholm +50 is an opportunity for Barbados to highlight the environmental and Climate Change context of Small Island Developing States in the sustainable recovery from the COVID-19 pandemic and progress towards the SDG 2030 Agenda.

The leadership dialogue that was held during the month of May 2022 stimulated meaningful debate at different levels with a range of stakeholders. The leadership dialogues were focused on the thematic areas below:

LD1: Reflecting on the urgent need for actions to achieve a healthy planet and prosperity of all

LD2: Achieving a sustainable and inclusive recovery from the coronavirus disease (COVID-19) pandemic

LD3: Accelerating the implementation of the environmental dimension of sustainable development in the context of the decade of action and delivery for sustainable development.

LD4: In-person dialogue held at the Barbados Hilton on Youth Agenda for an Environmentally Resilient Future

The timeline for Stockholm+50 preparations coincides with a critical period for countries and their global commitments under the Paris Agreement on Climate Change.

For more information on Barbados, please view the Human Development Report Briefing Note for this country.

Did you know?
At $0.26/kWh in 2020, Barbados has one of the highest electricity costs in the world.

Contact Us
To contact the UNDP office in Barbados, you can write to registry.bb@undp.org

UNDP Launches Call for Proposals: ‘Empowering Voices, Ending Gender-Based Violence’

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"Emissions Gap Report 2019", *UN Environment Programme*, 2019, pages 1, 13-20

UN environment programme

Emissions Gap Report 2019



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ISBN: 978-92-807-3766-0
Job number: DEW/2263/NA

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Suggested citation
United Nations Environment Programme (2019). *Emissions Gap Report 2019*. UNEP, Nairobi.

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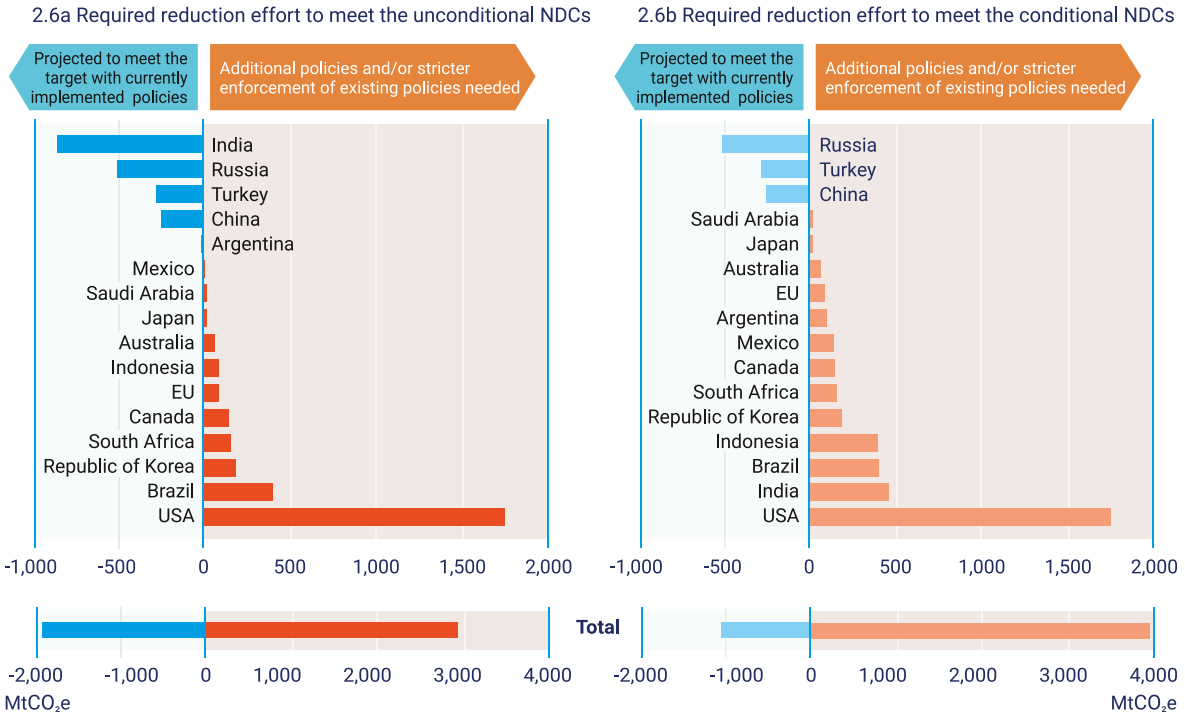
Government of the Netherlands

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Sverige

Emissions Gap Report 2019

November 2019

Figure 2.6. Additional emissions reduction effort required in 2030 per G20 Member to achieve NDC targets, based on current policies scenario projections of independent studies



Note: The NDC scenario projections from global models presented in chapter 3 assume that the countries that overachieve their NDCs follow their current policies trajectory. The calculations for the United States of America are based on an interpolation between its 2025 NDC and the 2050 long-term target (80 per cent reduction from 2005 levels) and for Brazil, they are based on its indicative 2030 target. As the current policies estimates of the independent studies are based on average GHG emission projections, the findings regarding whether countries are projected to over- or underachieve their unconditional NDC targets may therefore differ from the assessment in table 2.1, which is based solely on the number of independent studies.

Argentina

Unconditional NDC target projection: Uncertain or insufficient information

Argentina submitted its first NDC in 2015 and a revised version in 2016 where the country unconditionally committed to emit no more than 483 $MtCO_2e$/year in 2030. Since then, the country has established a National Climate Change Cabinet integrated by most of the ministries to design a low-carbon strategy and ensure the coherence of policies and measures. Under this institutional framework, the ministries have prepared a set of sectoral plans describing the mitigation policies and measures to be implemented to reach the NDC goals (Argentina, National Climate Change Cabinet 2019).

Policies and measures in the energy sector include the construction of several large-scale hydropower plants, three new nuclear power plants[7], various types of large-scale renewable energy power plants such as wind, solar PV and biomass, smaller renewable energy systems for distributed generation and residential solar water heaters. Implementation of these actions is behind schedule (Compañía Administradora del Mercado Mayorista Eléctrico S.A. [CAMMESA] 2019), mainly due to difficulties accessing financial resources (Gubinelli 2018). The weak infrastructure for electricity transportation is also a major barrier for the expansion of renewable, grid-connected power plants (Mercado Eléctrico 2019; Singh 2019). At the same time, the heavily subsidized exploitation of non-conventional fossil fuels from the Vaca Muerta reservoir is adding GHG emissions in a magnitude similar to the estimated emissions reductions of the renewable energy plan (Iguacel 2018). The initial exploration and future exploitation of offshore oil and natural gas is adding to the burden (Baruj and Drucaroff 2018; Boletín Oficial de la República Argentina 2019).

7 One of these three nuclear power plants, Atucha II, is already operational. The other two are currently under development.

Policies and measures have been developed for the industry and transport sectors such as energy efficiency, recycling and reuse of waste, renewable energy generation for self-consumption, promotion of low-emission urban mobility and public transport, intercity railroad restoration and efficiency improvements in road and railway freight transportation. Some of these actions are being implemented (for example, the initial implementation of hybrid and electric buses in large cities and the use of alternative fuels in cement kilns), while some other actions are behind schedule. In relation to agriculture, forestry and land-use, the key sectors for Argentina in relation to their contribution to GDP and to GHG emissions, sectoral plans have been presented with policies and measures such as conservation and restoration of native forests, sustainable forest management and fire prevention, increasing the forested area and promoting bioenergy from different biomasses. In addition to the measures proposed, Argentina urgently needs to revise the technologies and practices it has been using for decades in agricultural production to avoid further soil degradation and the impact on health of rural and suburban populations caused by using agrochemicals (Instituto National de Tecnología Agropecuaria (n.d).; Panigatti 2010). It also needs to provide the due amount of funding to finance the law that protects native forests and keep under control the rate of deforestation that increased in 2017 after several years of declination (Argentina, Ministerio de Ambiente y Desarrollo Sustentable 2018).

Australia

Unconditional NDC target projection: Emissions 0–15 per cent above target

With the re-election of Australia's conservative Government in May, there has been no recent material change in Australian climate policy. This will make achieving its NDC of a 26 per cent to 28 per cent emissions reduction below 2005 levels by 2030 challenging. However, it appears that the Australian Government intends to use carry-over permits from the Kyoto Protocol to do so, and uses a carbon budget approach that accounts for cumulative emissions between 2021 and 2030 in order to assess progress against its NDC (Australia, Department of the Environment and Energy 2018). The dropping of the proposed National Energy Guarantee in 2018 and that the renewable energy target will not be raised for years after 2020 up to 2030 (Clean Energy Regulator 2018) leaves Australia with no major policy tool to encourage emission reductions from the electricity sector in the short to medium term. There has been a 1.4 billion Australian dollar commitment to a 2 GW expansion of the Snowy Mountains hydroelectric project; however, the emission reductions stemming from this project are not expected to occur until well after 2030 (Marsden Jacob Associates 2018). In 2017, the Government's advisory body, the Climate Change Authority, concluded that other policies would be needed to deliver the structural changes necessary for Australia to decarbonize (Climate Change Authority 2017).

The latest projection published by the Government shows that emissions would remain largely unchanged up to 2030 (Australia, Department of the Environment and Energy 2018; Climate Action Tracker, 2019a). To date, much of the support from the Government's signature climate policy, the recently renamed "Climate Solutions Fund", has gone to LUC projects (Clean Energy Regulator 2017). The current Government decided earlier in 2019 to provide an additional 2 billion Australian dollars to the Climate Solutions Fund. The Australian Government estimates that these measures will contribute to an additional 100 $MtCO_2e$ of emissions reductions by 2030 (Australia, Department of the Environment and Energy 2019).

Brazil

Unconditional NDC target projection: Emissions at least 15 per cent above target

After the strong reduction in deforestation rates from 2004 (18,900 km²) to 2012 (4,656 km²), the deforestation rate grew again to 7,900 km² in 2018 (+70 per cent). Preliminary numbers indicate that in the first semester of 2019 deforestation rates continued to grow relative to the same period of 2018. President Bolsonaro significantly reduced the Ministry of Environment's budget for climate-change related activities; transferred the body responsible for identifying, defining, and registering Indigenous Territory to the Ministry of Agriculture; relaxed the rules for converting environmental fines into alternative compensations; extended deadlines for adequacy to registries that supported enforcement measures; and abolished most committees and commissions for civil participation and social control in the Federal Government (Climate Action Tracker 2019b).

Given the key role of the LULUCF sector in Brazil's NDC, which aims to reduce the country's GHG emissions by 37 per cent below 2005 levels by 2025 and to an indicative level of 43 per cent below 2005 levels by 2030, and given the huge global importance of its forests for environmental services, biodiversity and carbon sequestration, the Brazilian Government urgently needs to strengthen mitigation action in this sector. Official projections still show a decreasing trend (Programa Despoluição de Bacias Hidrográficas [PRODES] 2019), which is contrary to the observed trend. If environmental regulations and deforestation control policies are reversed or suspended, net emissions from deforestation could increase by 850-1,500 $MtCO_2e$/year by 2030 (Rochedo *et al.* 2018).

Despite the negative developments in climate policy and emissions regarding the forestry sector, Brazil has made progress in the energy sector. Market developments between 2015 and September 2019 seem to favour renewable energy over fossil fuels. Although fossil capacity was eligible in the latest auctions, no coal and only 4 GW of gas-fired power generation have been contracted since 2015 in comparison to 10 GW of renewables per cent. Wind has been the most competitive technology with concessions of 4 GW, followed by solar (3.3 GW), hydro (1.6 GW), and biomass (1.0 GW) (Brazil, Brazilian Electricity Regulatory Agency [ANEEL] 2019).

In the transport sector, the Government has launched the RenovaBio programme (Decree No. 9.308) that aims to increase the amount of biofuel in the national energy mix and has already led to an additional production of 31.9 million m^3 in 2016 and 2017 (Brazil, Ministry of Science, Technology, Innovation and Communications 2019); therefore the biofuel production in the country will probably meet the indicative targets mentioned in Brazil's NDC. President Bolsonaro also signed the first concession for the rail transport sector in 10 years. The project allows cargo to be transported from the Midwest and flow through both the Port of Itaqui (in the north) and the Port of Santos (in the southeast) (Brazil, Investment Partnerships Program 2019). The Federal Government plans to significantly increase the share that railway transport constitutes in the next eight years (from 15 per cent to 29 per cent).

Canada

Unconditional NDC target projection: Emissions at least 15 per cent above target

In its NDC, Canada pledged to reduce its GHG emissions by 30 per cent below 2005 levels by 2030. With Royal Assent of the Greenhouse Gas Pollution Pricing Act in December 2018, carbon pricing will be in place across all Canadian provinces and territories by September 2019, except the Province of Alberta, but is facing court challenges from a number of provinces (Climate Action Tracker 2019c). Alberta repealed its carbon tax in May 2019, however the federal carbon price will be applied to that Province in January 2020 (Province of Alberta Queen's Printer 2019; Vigliotti 2019). The adoption of performance standards on coal and gas-fired power stations at the end of 2018 means Canada is on track to meet its 2030 coal phase-out commitment, although it is expected that many coal-fired plants will be replaced with natural gas variants, creating a risk of future stranded assets (Climate Action Tracker 2017; Government of Canada, 2018b; 2018a). The 2019 federal budget included a 300 million Canadian dollar investment in zero-emission vehicles, while the Government has set sales targets of 10 per cent by 2025, 30 per cent by 2030, and 100 per cent by 2040 (Canada, Transport Canada 2019). According to Canada's Greenhouse Gas and Air Pollutant Emissions Projections (2018), when taking into account currently announced federal, provincial and territorial policies and measures, Canada's emissions in 2030 are projected at 592 Mt – or 223 Mt lower than what was projected before the adoption of the Pan-Canadian Framework for Clean Growth and Climate Change.

China

Unconditional NDC target projection: Overachievement of the target by less than 15 per cent

China's NDC targets include capping CO_2 emissions around 2030 and making an effort to cap them earlier, as well as a 20 per cent share of non-fossil fuels in the total primary energy demand (based on the conversion factor of the Chinese National Bureau of Statistics for renewable energy and nuclear power generation). Further targets include reducing the carbon intensity of its GDP by 60 per cent to 65 per cent below 2005 by 2030 and increasing forestry stock by 4.5 billion m^3 by 2030 compared to the 2005 level.

Since 2017, China's National Energy Administration (NEA) has developed a warning system for investment in coal power plants, which evaluates the risks of new coal power projects based on investment returns, electricity demand and environmental concerns. The system rates the feasibility of coal power projects in 38 regions as bad, moderate or good. New coal investment is banned, in principle, in regions with a bad rating. In April 2019, the NEA published the latest risk rating, which reduces the number of regions that ban new coal investment from 24 to 21 (NEA of China 2019). The change may encourage coal power development and slow down power sector decarbonization.

China's renewable energy and new energy vehicle (NEV) has experienced exponential growth in the past decade, in part thanks to generous subsidies. As the costs of the technologies fall and markets mature, China has started to phase down relevant subsidies. The Government suspended the approval of all new subsidized solar PV projects in May 2018 (NEA, National Development and Reform Commission [NDRC]; Ministry of Finance [MOF] of China 2019) and issued new regulations to reduce subsidies for solar and wind projects in 2019 (NDRC of China 2019a; 2019b.). The country also slashed the subsidy standard of 50 per cent for new energy cars in 2019 and plans to stop subsidies by the end of 2020 (He and Cui 2019). In the short-term, the efforts would result in a rush to develop renewable power projects or purchase new energy cars before phase-out of subsidies. In the midterm, utility-scale solar PV and onshore wind power can reach grid-parity by 2021 (Hang 2019; Tu *et al.* 2019). In fact, China has already approved 21 GW of wind and solar projects without subsidy (Hill 2019). The new policy will also accelerate the marketization of the NEV industry in China (Xiao 2019). In summary, the recent subsidy reform is a necessary step for the large-scale adoption of renewable energy and NEV in China.

EU28

Unconditional NDC target projection: Overachievement of the target by less than 15 per cent

The EU has adopted climate legislation to implement its NDC target of a 40 per cent reduction below 1990 levels by 2030. It has reviewed its EU emission trading system and increased its annual reduction of the cap. It has set national emission reduction targets for Member States for the sectors not covered in the EU emissions trading system. It has put in place legislation that ensures accounted LULUCF emissions are not resulting in a decrease of the EU's sink. Combined, these legislations meets the at least

40 per cent greenhouse gas reduction target of the NDC. In recent months, the EU has implemented a number of important accompanying measures that would lead to an overachievement of its NDC target. The adoption of the new renewable energy directive (Directive 2018/2002; RED II) and the new energy efficiency directive (Directive 2018/2002) (European Commission 2018c) with the respective goals of increasing the share of renewables in the energy mix and improving energy efficiency – if effectively implemented – would lead to emissions reductions of at least 45 per cent by 2030 relative to 1990 (European Commission 2018a). These two directives were parts of the package of measures called Clean Energy for all Europeans presented by the European Commission in November 2016. With the adoption of the Electricity Regulation and Electricity Directive by the Council in May 2019, European institutions finalized the work on this package, which also included a directive focusing on energy efficiency in the building sector (adopted in May 2018), and a Governance Regulation which obligates Member States to present National Energy and Climate Plans (NECPs) describing measures they are going to implement to contribute to meeting the EU's energy and climate goals. Collectively, the current draft NECPs are projected to fall short of both renewable and energy efficiency targets (European Commission 2019b). Final NECPs, taking on-board recommendations by the European Commission and featuring greater ambition where necessary, are due by the end of 2019.

Significant progress has also been made in the transport sector in which the adoption of CO_2 emissions standards for passenger cars and vans in December 2018 was followed by standards for new heavy-duty vehicles in early 2019. According to the legislation, average emissions from passenger vehicles sold by each manufacturer in 2030 will have to be 37.5 per cent lower for new cars and 31 per cent lower for new vans compared to 2021 levels (European Council 2019). Emissions from new heavy-duty vehicles should decrease by 15 per cent in the second half of the next decade and by 30 per cent in 2030 and beyond – in both cases in comparison to 2019 (European Commission 2019a). These regulations, however, may need to be strengthened after 2030 if net zero GHG emissions by 2050 as proposed by the European Commission (European Commission 2018a) are to be achieved.

Furthermore, an increasing number of countries are committing to the phase-out of coal-fired power plants; Finland has agreed on a phase-out of coal-fired power plants by 2029 (Europe Beyond Coal 2019) and Germany is discussing a phase-out (a commission advised it to do so by 2038) (Germany, Federal Ministry for Economic Affairs and Energy [BMWi] 2019). Other Member States that committed to, or announced coal phase-outs, include Austria (2025), Denmark (2030), France (2021), Ireland (2025), Italy (2025), the Netherlands (2030), Portugal (2030), Sweden (2022) and the United Kingdom (2025) (Europe Beyond Coal 2019).

India

Unconditional NDC target projection: Overachievement of the target by more than 15 per cent, suggesting a weak target

India's NDC has three numeric targets for 2030: reduce emissions intensity by 33 per cent to 35 per cent from 2005 levels, achieve an installed power capacity of 40 per cent from non-fossil fuel sources and create an additional carbon sink of 2.5–3.0 $GtCO_2e$ from forest and tree cover. India has continued its efforts towards achieving its renewable and intensity targets, though the previous year saw no substantial course change. In 2018, renewable deployment exceeded conventional fuels (Buckley and Shah 2019), though is projected to remain short of the 175 GW target by 2022 (Vembadi, Das and Gambhir 2018; Buckley and Shah 2019). The deployment of renewables has been let down by unclear, inconsistent taxation and import duty norms (Buckley and Garg 2019; Buckley and Shah 2019). Interrelated factors have stymied India's uptake of fossil fuel infrastructure, including a financial crisis that has led multiple coal power plants to be deemed as non-performing or stressed assets (India, Parliamentary Standing Committee on Energy 2018). In addition, the National Clean Air Programme released in 2019 aims to reduce $PM_{2.5}$ and PM_{10} concentrations by 25 per cent to 30 per cent, and provides additional motivation to shut down old coal power plants (India, Ministry of Environment, Forest and Climate Change [MoEFCC] 2019b).

India has simultaneously continued its efforts to broaden energy access. India reported the 100 per cent electrification of households in early 2019 (India, Ministry of Power 2019), with likely implications for the future of India's energy demand. The Kisan Urja Suraksha evam Utthaan Mahabhiyan (KUSUM) scheme launched in early 2019 is aimed at promoting solar energy in rural areas with the target to install 26 GW of solar agricultural pumps by 2022 (India, Cabinet Committee on Economic Affairs 2018). India also released an India Cooling Action Plan in 2019 to provide cooling services while keeping their GWP minimal by reducing energy and refrigerant demand (MoEFCC 2019a).

India has also begun deliberating policies to electrify public and private modes of transport. The second phase of the Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME) was launched in 2019, aiming to support the uptake of electric two-wheelers, three-wheelers, four-wheelers and buses, with projected cumulative savings of 7.2 $MtCO_2e$ (India, Cabinet on Economic Affairs 2018). India is also deliberating upon targets to ban sales of all fossil fuel powered two-, three- and four-wheeler vehicles in the next decade. India also aims to electrify all its broad gauge railway routes by 2021–2022 (India, Cabinet Committee on Economic Affairs 2018).

Indonesia

Unconditional NDC target projection: Uncertain or insufficient information

Indonesia's NDC sets an unconditional 29 per cent and a conditional 41 per cent (with sufficient international support)

reduction target on the country's GHG emissions below business-as-usual by 2030. The National Energy Policy referred to in Indonesia's NDC aims to increase the share of renewable energy in the total primary energy supply to 23 per cent by 2025 from the current 6.5 per cent (Republic of Indonesia, Ministry of Energy and Mineral Resources [MEMR] 2017), but this target will likely not be met and the country's heavy reliance on coal-fired power will likely continue under current policy measures (Climate Action Tracker 2019e). The new Electricity Supply Business Plan (RUPTL) 2019–2028 adopted in January 2019 (Republic of Indonesia 2019) also envisages the installation of almost 40 GW of fossil-fired power plants, about 27 GW of which being coal-fired, in the next 10 years. It is estimated that this 27 GW of coal-fired power alone would annually emit up to 200 $MtCO_2e$ over the next 40 years, unless they are decommissioned before the end of their lifetime.

In the land-use sector, Presential Instruction No 8 of 2018 (President of the Republic of Indonesia 2018) presents a three-year moratorium on the entire licensing process for palm oil plantations and an order for the relevant central Government ministries and regional governments to conduct a massive review of oil palm licensing data (Mongabay 2018). A recent Presidential Instruction also made the temporary moratorium on forest-clearing permits for logging and plantations issued in 2011 permanent, but the historical development of land-use GHG emissions casts doubt on the effectiveness of these measures (Jong 2019). Although the Global Forest Watch (2018) reported in 2017 that Indonesia was one of the few tropical nations to reduce its deforestation rates in 2017, this was likely due, in part, to the national peat drainage moratorium (Norway, Ministry of Climate and Environment 2016), in effect since 2016.

Japan

Unconditional NDC target projection: Emissions 0–15 per cent above target

Under its NDC, Japan aims to reduce its GHG emissions by 26 per cent by 2030 from 2013 levels. Japan's total GHG emissions seem to have peaked in the fiscal year (FY) of 2013 before decreasing for four consecutive years. In the power sector, decarbonization efforts are being strengthened only incrementally. In March 2019, the Ministry of the Environment (MOE) announced three new actions to accelerate decarbonization progress in the power sector (MOE 2019), among which is stricter enforcement of environmental impact assessments on planned coal-fired power plants. However, the downsides are the overall limited effectiveness of the measures, as the MOE cannot veto the plans, and that coal-fired power plants already under construction will be unaffected by this action.

As for renewables, the Environmental Impact Assessment Act will apply from April 2020 and will also be applicable to large-scale solar PV projects with capacities greater than 40 MW (or greater than 30 MW following a screening process based on the current status of land-use on the project site) (Ministry of Economy, Trade and Industry [METI] 2019b). The Government has also started reviewing the scope of renewable projects to be supported under the feed-in tariff (FIT) scheme, which contributed to the large increase of solar PV capacity in the last years, to control the increasing surcharge (METI 2019c). These new rules are likely to secure proper business disciplines for solar PV in Japan, despite curbing the speed at which large-scale solar projects can be deployed after the full installation of capacity with FIT approval. For wind power, the new law put into effect on 1 April 2019 (METI 2019a) allows offshore wind power developers to occupy a registered area up to 30 years after consultation with relevant ministries and local stakeholders. This will promote the development of offshore wind farms.

For the transport sector, a panel under the METI published an interim report on the long-term strategy for car manufacturing (METI 2018), which establishes a long-term goal to reduce tank-to-wheel CO_2 emissions by 80 per cent below 2010 levels by 2050 for all new vehicles produced by Japanese car manufacturers and by 90 per cent by 2050 for new passenger vehicles. The goal for new passenger vehicles assumes a near 100 per cent share of electrified vehicles (including hybrids, plug-in hybrids, battery electric vehicles and fuel cell electric vehicles). With CEOs of major car manufacturers such as Toyota, Nissan and Honda all being members of the panel, the development of these long-term goals can be considered an important step towards decarbonization of Japan's transport sector.

Mexico

Unconditional NDC target projection: Overachievement of the target by less than 15 per cent

Mexico's NDC makes an unconditional commitment to reduce GHG emissions by 22 per cent below business-as-usual in 2030, implying a net emissions peak from 2026, and a conditional commitment to reduce emissions by 36 per cent below business-as-usual in 2030. Mexico's new Administration has stalled years of progress in the energy sector with decisions that threaten to reverse progress made towards enhanced climate action through, for example, Mexico's General Climate Change law of 2012 (Mexico, Cámara de Diputados del H. Congreso de la Unión 2012) or its Energy Transition law of 2015 (Mexico, Cámara de Diputados del H. Congreso de la Unión 2015). The National Electricity Outlook (PRODESEN) 2019–2033 adopted in June 2019 (Mexico, Ministry of Energy 2019) limits deeper deployment of clean energy (including efficient cogeneration) beyond the 35.1 per cent by 2024 target (24.12 per cent in June 2018) by increasing fossil fuel-fired generation, reducing wind power and not increasing solar power growth rates. Furthermore, the Ministry has cancelled the 2018 long-term power auction and cut-off the transmission lines to evacuate renewable energy. There have been no announcements of further

auctions. Despite the recognition of the importance of reducing GHG emissions and increasing renewable energy deployment, the National Development Plan adopted in June 2019 (Mexico, Diario Oficial de la Federación 2019) adds a new additional refinery with the aim to increase gasoline, diesel and fuel oil production.

After postponing Mexico's 2018 long-term energy auction round – a policy scheme introduced in 2015 after the country's energy reform that aimed to increase its clean energy share – President Lopez Obrador cancelled the fourth auction round in January 2019 Mexico, Centro Nacional de Control de Energía 2018). Although the first three rounds of electricity auctions had led to a substantial amount of new renewable energy projects (Notimex 2019), President Lopez Obrador's plans for the power sector include the modernization of gas and coal-fired power plants previously planned for retirement and the construction of a 700 MW coal-fired plant in the short and midterm (Solís 2018a, 2018b).

President Obrador has also presented a National Refining Plan aimed at "rescuing" Mexico's oil industry and achieving energy independence through the rehabilitation of six oil refineries and the construction of a new one in Dos Bocas, Tabasco, and a plan for constructing a railroad in the Yucatan peninsula (known as the Maya Train project) (Government of Mexico 2019). These three infrastructure projects have faced national and international criticism (see, for example, Gurría (2019)).

Republic of Korea

Unconditional NDC target projection: Emissions at least 15 per cent above target

Dynamic discussions are taking place in the Republic of Korea in relation to the adequacy of its 2030 power sector emissions target. In its NDC, the Republic of Korea has committed to reducing its GHG emissions to 37 per cent below business-as-usual or to 536 $MtCO_2e$ per year by 2030 (UNFCCC 2018), and initially set up a road map in 2016 to achieve this target. However, the plan in the initial road map to procure 96 $MtCO_2e$ per year of international credits was subject to environmental integrity and economic feasibility-related criticism. In July 2018, the road map was amended, stating that 16 $MtCO_2e$ per year will be reduced by international credits rather than 96 $MtCO_2e$ per year (Republic of Korea, Ministry of Environment 2018).

Another important change to the road map was that contemplated emission reductions from the power sector were reduced from 64.5 $MtCO_2e$ per year to 23.7 $MtCO_2e$ per year (Republic of Korea, Ministry of Environment 2018), which is mainly attributable to the Moon Jae-In Administration's nuclear policy, under which 8.8 GW of new nuclear power plant construction projects were cancelled. The amended GHG road map stated that an additional emission reduction requirement of 34.1 $MtCO_2e$ per year may be imposed on the power sector depending on further discussions, which mostly relates to how ambitiously the country will decommission its operational coal power plant fleet by 2030. The additional 34.1 $MtCO_2e$ per year reduction issue has become the centre of national climate and energy policy discussions and was one of most contentious topics when establishing the Third Energy Framework Plan, under which the country aims to increase its renewables share in total electricity generation from 7.6 per cent in 2017 to 35 per cent by 2040 and to phase down coal and nuclear power (KBS 2019).

Air pollution concerns, originating from the South Chungcheong Province, where approximately 18 GW of coal power plants (half of the Republic of Korea's coal power fleet) are located, may expedite the speed of coal power plant retirements and lead to more ambitious reductions from the country's power sector. In early 2019, opposition from this Province led to the suspension of retrofits of 4.5 GW of coal power plants (Chosunilbo 2019; Chung 2019). If the retrofits were implemented, the life period of these power plants would have extended to until around 2040. The Governor of South Chungcheong Province has also committed to decommissioning coal power plants that are older than 25 years, which, if successful, will result in 14 units being decommissioned by 2026 (Powering Past Coal Alliance 2018).

Russia

Unconditional NDC target projection: Overachievement of the target by more than 15 per cent, suggesting a weak target

Russia pledged to limit GHG emissions by 15–25 per cent below 1990 levels by 2020 and by 25–30 per cent below 1990 levels by 2030, and recently announced that it will ratify the Paris Agreement (United Nations 2019). While the ratification date is uncertain, a draft Decree of the President on a new 2030 emission reduction target is to be prepared by December 2019, with a draft implementation plan to achieve the 2030 target expected in the first half of 2020 (UNFCCC 2019b). The Russian Action Plan mandates the drafting of a "low-carbon strategy until 2050" by the end of 2019 (Sauer and Collett-White 2019). However, no mention of the preparation of this draft has yet been made. The fact that only draft documents are expected provides a weak basis for tracking and assessing progress, as they may just contain principles and approaches without concrete mitigation measures and GHG targets. In December 2018, the Government introduced new draft legislation that would establish a cap-and-trade system for major carbon emitters by 2025 (Sauer and Collett-White 2019).

Saudi Arabia

Unconditional NDC target projection: Uncertain or insufficient information

In its NDC, Saudi Arabia commits to reducing emissions by up to 130 $MtCO_2e$ per year below business-as-usual

by 2030 through actions that contribute to economic diversification and adaptation. The country's actions to mitigate climate change are driven by its motive to diversify its economy (Al-Sarihi 2019). In 2016, Saudi Arabia published its Vision 2030, which included a renewable energy target of 9.5 GW by 2023 and a phase-out of fossil fuel subsidies (Kingdom of Saudi Arabia 2016). However, the implementation of this vision has been delayed for both renewable energy and the fossil fuel price reform (Nereim 2017; Krane 2019). Most recently, in March 2018, Saudi Arabia and the SoftBank Group signed a memorandum of understanding to build a 200 GW solar plant, the largest single solar project worldwide, as part of Vision 2030 (Nereim and Cunningham 2018). However, the expected tenders to implement the plan have been delayed since January 2019 (Bellini 2019). Outside the power sector, the Public Investment Fund announced in October 2018 its intention to locate an electric vehicle industry in Saudi Arabia, following an agreement to invest more than US$1 billion in an United States of America-based electric vehicle manufacturer (Torchia *et al.* 2018).

South Africa

Unconditional NDC target projection: Emissions 0–15 per cent above target

In its Cancun Pledge, South Africa aims to reduce its GHG emissions by 34 per cent below business-as-usual in 2020, and commits to achieving a peak, plateau and decline of GHG emissions in its NDC, with emissions peaking between 2020 and 2025, before plateauing at 398–614 $MtCO_2e$ per year between 2025 and 2030.

The South African Government released the long-awaited draft of its Integrated Resource Plan (Republic of South Africa, Department of Energy 2018) in August 2018. The revised plan aims to decommission 35 GW of Eskom's currently operational coal generation capacity (42 GW) by 2050, with 12 GW of this decommissioned by 2030, another 16 GW by 2040, and a further 7 GW by 2050 (Republic of South Africa, Department of Energy 2018). The 5.7 GW of coal capacity currently under construction would be completed and another 1 GW of new coal capacity would be commissioned by 2030. The significant volume of coal capacity to be decommissioned by 2030 and beyond marks a significant shift away from previous planning. The Government has not yet communicated a timeline for the Integrated Resource Plan (IRP) update's final adoption as of September 2019.

South Africa approved a carbon tax in February 2019, which covers fossil fuel combustion emissions, industrial processes and product-use emissions, and fugitive emissions (Reuters 2019). The tax has been implemented since June 2019, but a basic tax-free threshold for around 60 per cent of emissions and additional allowances for specific sectors means that tax exemptions will apply for up to 95 per cent of emissions during the first phase until 2022 (KPMG 2019).

In addition, South Africa released a draft climate change bill in June 2018 for public comment (Republic of South Africa, Department of Environmental Affairs 2018), but the Government has not yet communicated a timeline for the law's final adoption as of July 2019. The draft law aims to establish a Ministerial Committee on Climate Change to oversee and coordinate activities across all sector departments. Under the proposed legislation, the Minister of Environmental Affairs together with the Ministerial Committee on Climate Change would have to set sectoral emission targets for each GHG emitting sector in line with the national emission target every five years.

Turkey

Unconditional NDC target projection: Overachievement of the target by more than 15 per cent, suggesting a weak target

In its Intended Nationally Determined Contribution (INDC), Turkey aims to limit its GHG emissions to 21 per cent below business-as-usual or to 959 $MtCO_2e$ per year in 2030 (excluding LULUCF). Turkey's current emissions are on this trajectory. The energy sector is at the centre of the country's low-carbon transition debate, representing more than 85 per cent of its total GHG emissions in 2017, with 40 per cent of all energy sectors emissions resulting from electricity generation.

At the start of 2018, Turkey put in place an ambitious National Energy Efficiency Action Plan (NEEAP) for the 2017–2023 period, which aims to reduce the its total energy demand (in primary terms) by 14 per cent compared with the 2017 level. The six-year plan includes the six sectors that supply and demand energy, covering a comprehensive list of 55 actions. The renewable energy FIT mechanism that will still be available for new projects until the end of 2020 was successful in raising the wind and solar PV share in total electricity demand to 10 per cent (and around a third of the total demand supplied from renewables). Following the global trend, Turkey is diversifying its policy portfolio. Since 2017, three rounds of auctions have taken place for onshore wind (twice) and solar PV with favourable prices and local content requirements. The Government has indicated that auctions will be the key mechanism for renewable energy investments in the coming decade.

The Government has set an ambitious plan for new coal-fired power plants, with purchase guarantees and subsidies to investors. Among the G20 members, Turkey ranks third for new coal-fired power plant capacity being planned (37 GW), following China and India (as at January 2019). This is twice as much as Turkey's current operational capacity. However, planned capacities are not being constructed due to a lack of financing, with around only 1 GW currently under construction. More than 40 GW in planned coal-fired power plant capacity was cancelled over the 2010–2018 period. Nuclear energy has been on Turkey's agenda as an alternative source for many years. The country's first nuclear power plant is planned to have four 1.2 GW reactors, with the first reactor planned to start operation by 2023.

United States of America

Unconditional NDC target projection: Emissions at least 15 per cent above target

The current NDC target for the United States of America is to reduce emissions by 26–28 per cent from 2005 levels by 2025. However, President Trump's Government is taking actions to move the country's emissions trajectory in the opposite direction, cutting environmental regulations in favour of giving more freedom to industry. The Trump Administration recently issued the final Affordable Clean Energy (ACE) rule, its replacement for the Obama Administration's Clean Power Plan, which was meant to reduce emissions from power plants in order to achieve the country's NDC target. While the Clean Power Plan would have reduced power sector emissions by roughly 32 per cent, the ACE rule is expected to reduce them by roughly 1 per cent (Natural Resources Defense Council [NRDC] 2018).

The Trump Administration has also frozen the vehicle emissions and fuel economy standards for cars and light trucks until 2026, meaning that the average fuel economy will remain at 35 miles per gallon (mpg), rather than rising to 54 mpg. According to analysis by the Rhodium Group, this will increase emissions from the transportation sector by 28–83 $MtCO_2e$ per year by 2030, with the ultimate amount dependent upon the effect of oil prices on consumption (Larsen *et al.* 2019). However, a group of automakers recently struck a deal with the state of California to strengthen standards for gas mileage and emissions from their vehicles (Van Sant 2019).

However, despite the Trump Administration's actions, market trends have resulted in a significant drop in emissions over the past decade. The country's energy-related CO_2 emissions fell by 14 per cent between 2005 and 2017, while the economy grew by 20 per cent (U.S. Energy Information Administration [EIA] 2018). Action at state and local levels has also grown significantly since President Trump's announcement that the United States of America would leave the Paris Agreement. A group of 25 governors representing over half of the country's population and US$11.7 trillion in GDP have joined the U.S. Climate Alliance, a coalition committed to reducing GHG emissions in line with the goals of the Paris Agreement (U.S. Climate Alliance 2019).

2.5 Preparation of long-term strategies and the way forward

Another important ongoing policy process is the preparation of long-term low emissions development strategies under the Paris Agreement. As of October 2019, only seven G20 members (Canada, France, Germany, Japan, Mexico, the United Kingdom and the United States of America) had submitted their strategies to the UNFCCC and another two (the EU28 and South Africa) had published their draft strategies (UNFCCC 2019a). Of the seven long-term strategies submitted by G20 members to the UNFCCC, only Japan committed to achieving long-term net zero GHG emissions as early as possible in the second half of this century, though France and the United Kingdom have passed bills that commit to net zero GHG emissions by 2050. A few other members, including the EU28, are in the process of revising their domestic and international long-term goals. For non-annex I G20 members, there have been some indications to suggest that they would establish long-term strategies that contain timelines for achieving net zero GHG emissions. For comparison, to keep warming below 1.5°C in 2100 with a 66 per cent chance, global total net CO_2 emissions would need to be reduced to zero by around 2050 (IPCC 2018). There is an increasing number of countries that have set or are in the process of setting net zero emissions targets domestically (Energy & Climate Intelligence Unit 2019).

More long-term strategies are expected to be submitted to the UNFCCC in the coming months, which will provide a better understanding of the level of collective long-term ambition and how it will affect the pathways towards achieving the Paris Agreement's long-term temperature goals. It will also be important to scrutinize the consistency between the (revised) NDCs and long-term strategies to ensure that countries' long-term low-carbon development pathways are feasible.



Annex 489

"A global challenge, universal solidarity", *Multilateral Fund for the Implementation of the Montreal Protocol,* May 2023

INTRODUCTION

A global challenge, universal solidarity

Since 1991, the Multilateral Fund for the Implementation of the Montreal Protocol has collaborated with partners worldwide to address one of humanity's most pressing environmental challenges: the depletion of the ozone layer.

Working side-by-side with international agencies, the **UN Environment Programme (UNEP)**, **UN Development Programme (UNDP), UN Industrial Development Organization (UNIDO)** and the **World Bank**, the Multilateral Fund has supported developing nations in phasing out the production and consumption of hazardous ozone-depleting substances (ODS) for more than three decades. In doing so, not only has the Fund helped protect the Earth's ozone layer, but it has also made significant strides in climate change mitigation by eliminating a wide range of greenhouse gases responsible for a global rise in temperature.

A shining example of solidarity, the Multilateral Fund is a beacon of hope and a model of how international cooperation can successfully drive positive change.

MAY 2023

Multilateral Fund for the Implementation of the Montreal Protocol



SECTION 1

Funding for good: the Multilateral Fund's investment in developing countries

$4 Bn
in grant funding

9,321
approved projects

144
developing countries assisted

In close collaboration with its partners, the Multilateral Fund has invested billions of dollars in targeted ozone-recovery projects over the past thirty years. Through the establishment of national ozone offices, development of regulatory frameworks, advancement of energy-efficient technologies, and training of technicians and customs officers, the Fund has helped developing countries around the world dramatically decrease the consumption and trade of ODS.



GENERAL SUMMARY

FUNDS	CUMULATIVE SINCE 1991
Funds pledged (US$)	**5,255,700,000**
Funds approved (US$)	**3,961,232,879**
Funds disbursed (US$)	**3,612,820,207**
Funds approved to LVCs (US$)	**272,629,805**
Funds approved to non-LVCs (US$)	**3,329,806,351**

LVC – low volume consuming country

SUMMARY OF PROJECTS APPROVED

Latin America and the Caribbean
2,290
640,356,673

Other
343
331,918,026

Europe
605
122,024,291



Africa
2,428
382,586,632

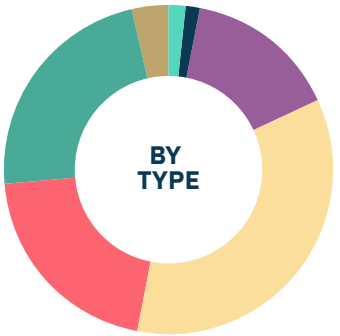
Asia and the Pacific
3,655
2,484,347,258

TOTAL 9,321 3,961,232,879

Training
324
28,443,734

Technical assistance
2,116
553,472,591

Preparation
1,923
112,256,499



Country programme
165
7,953,870

Demonstration
134
66,079,501

Institutional strengthening
1,405
177,459,877

Investment
3,254
3,015,566,807

Number of projects approved since 1991
Total funds approved since 1991 (US$)

SECTION 2

A win-win: protecting the ozone layer, cooling the planet



The Challenge

Phasing out ODS used in refrigeration, air-conditioning, aerosols, agriculture, and other sectors which contribute to the depletion of the ozone layer and global temperature rise.

The Goal

Provide financial resources for projects aimed at eliminating ODS in developing (Article 5) countries via knowledge-sharing, training, and the introduction of more sustainable non-ODS alternatives.

The Success

The phase out of CFCs, CTC, halons, methyl bromide and methyl chloroform has already been achieved, while that of HCFCs in Article 5 countries is expected by 2030. Phasing out ODS chemicals is one of the most important steps ever taken to curb climate change.

A Cooler Future

The Kigali Amendment continues the legacy of the Montreal Protocol by decreasing the use of hydrofluorocarbons (HFCs) whose global warming potentials (GWPs) range from 53 to 14,800. Under the Amendment, limiting use of HFCs will prevent the equivalent of approximately 105 billion tonnes in carbon dioxide emissions, helping avert a global temperature rise of up to 0.5 degrees Celsius by 2100. The Fund contributes to meeting this critical goal.

756,013

metric tonnes ODS baseline consumption phased out

CO_2

2.2 Bn

CO_2 equivalent tonnes

SUBSTANCES PHASED OUT	BASELINE CONSUMPTION metric tonnes	BASELINE CONSUMPTION CO_2-eq tonnes
Chlorofluorocarbons (CFCs)	**156,504**	**1,272,184,163**
Carbon tetrachloride (CTC)	**59,492**	**83,289,409**
Halons	**12,165**	**27,008,314**
Hydochlorofluorocarbos (HCFCs)	**498,778**	**813,063,888**
Methyl bromide	**15,571**	**77,855**
1,1,1-Trichloroethane (methyl chloroform)	**13,503**	**1,971,445**
Grand Total	**756,013**	**2,197,595,074**

SECTION 3

Sustainable financing, strategic partnerships

Through innovative financing mechanisms and ongoing collaboration, the Multilateral Fund and its implementing partners have enabled Article 5 governments to successfully coordinate national activities and roll out targeted programs to phase out ODS. To minimise risk and maximise impact, the Fund rigorously monitors project implementation to resolve delays and identify potential risks, measures progress against planned objectives to improve efficiency, and ensures data is reported in full compliance with the Montreal Protocol. Thanks to this sustained and collective approach, in which every dollar, policy and procedure is meticulously reviewed and approved by the Executive Committee, the Fund actively contributes to the recovery of the ozone layer projected for the middle of this century.



SUMMARY OF PROJECTS APPROVED BY AGENCY

AGENCY	TOTAL NUMBER OF PROJECTS APPROVED SINCE 1991	TOTAL FUNDS APPROVED SINCE 1991 (US$)
Bilateral	**738**	**187,431,652**
WORLD BANK	**1,112**	**1,313,582,465**
UNDP	**2,646**	**1,017,664,342**
UNEP	**2,800**	**425,855,080**
UNIDO	**2,025**	**1,016,699,340**
Total	**9,321**	**3,961,232,879**



79%

of business plans approved

PROJECTS APPROVED SINCE 1991

9,600 Total approved projects

85.3% Completed



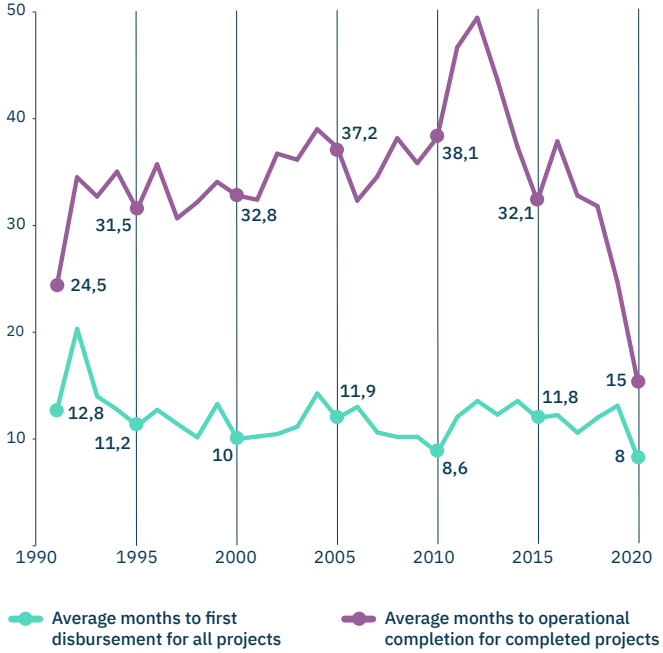
11.1% Ongoing



4% Cancelled and transferred



NUMBER OF MONTHS TO FIRST DISBURSEMENT AND PROJECT COMPLETION



SECTION 4

Empowering people, transforming economies

The Multilateral Fund's investments in technology transfer, training, and capacity building have led to tangible actions to protect the environment and transition towards more sustainable practices. By promoting the use of ozone and climate-friendly alternatives, the Fund and its partners have helped create new business opportunities and spur technological innovation in developing nations across the globe. The result? New jobs and improved livelihoods, plus a growing market for non-ODS low-carbon products that benefit the planet and human health.



FUNDS APPROVED FOR CAPACITY BUILDING AND SUPPORT (US $)

$181 M
Compliance Assistance Programme

$111 M
Core Unit Costs for agencies

$177 M
Institutional Strengthening funding for countries

REAL-LIFE IMPACT OF HCFC PHASE-OUT PROJECTS SINCE 2010

4,651
enterprises assisted

262,293
technicians trained

64,745
customs officers trained

265,969
technicians and trainers trained

233
technical institutions implementing training programmes

802
training institutions / centres of excellence implementing training programmes

133
certification systems for technicians (under development and/or implementation)

232
recovery and recycling programmes

SECTION 5

Connecting the dots: the real-world impact of protecting the ozone layer

What began as a strategic initiative to protect the ozone layer has grown into one of the world's most powerful financial drivers of social and environmental progress. In fact, the Multilateral Fund's work has a wide-ranging impact on the global Sustainable Development Goals (SDGs), from climate action to sustainable innovation, global well-being to equal opportunities, and many more.



SDG 5 Gender Equality

Since the adoption of a comprehensive gender mainstreaming policy in 2019, the Multilateral Fund has amplified its investments in projects that advance gender equality and support the empowerment of women. By facilitating fair access to training and employment opportunities, the Fund fosters women's economic independence and their role in the global transition away from ODS.



148

Gender-responsive activities submitted since 2019

SDG 13 Climate Action

Emissions avoided by eliminating ODS has a positive social and economic impact, saving trillions of dollars in recovery efforts by averting potential storms, heatwaves, wildfires, droughts, and other climate-related natural disasters.

TOTAL AVOIDED EMISSIONS FROM ARTICLE 5 COUNTRIES BETWEEN 1995 AND 2021

51.1 gigatonnes of CO_2-eq = **$2 Tn** savings to society*

This is approximately **1.4 TIMES** the global 2022 carbon dioxide emissions from energy combustion and industrial processes or **87%** of the total global anthropogenic greenhouse gas emissions in 2019.

This is equivalent to the cumulative public domestic health spending of all developing countries between **1995 - 2004**

*Based on a social price of carbon of US $40/$CO_2$-eq tonne

Based on the Multilateral Fund's aggregated disbursements of US

$3.63 Bn

through 2021

IT COST THE FUND

$0.07

TO REMOVE

1 CO_2-eq tonne

FROM THE ATMOSPHERE

A testament to the Fund's unparalleled efficiency.

SDG 3 Good Health and Well-Being

A thinning ozone layer can increase the risk of skin cancer and cataracts and cause damage to crops, severe drought, and extreme weather events. Ozone recovery improves people's overall well-being, especially those living in vulnerable communities in developing countries.

SDG 8 Decent Work and Economic Growth

The Multilateral Fund's support for the phase out of ODS positively impacts industries and economies, opening new markets for sustainable products and creating jobs founded on innovative solutions to environmental challenges.

CONCLUSION

Decade after decade, the Multilateral Fund has worked in partnership with developing countries and international stakeholders to advance solutions to one of humanity's greatest environmental challenges. Today, its momentous impact resounds around the world, empowering social, economic and environmental progress in developing countries and helping build a safer and more sustainable future for all.

For more information about the Multilateral Fund for the Implementation of the Montreal Protocol, please visit our website.



Multilateral Fund for the Implementation of the Montreal Protocol

Annex 489 bis

"Report of the World Commission on Environment and Development - Our Common Future", *Brundtland Commission, 1987*, Annex 1, pages 1, 20-24

UNITED NATIONS

A

General Assembly

Distr.
GENERAL

A/42/427
4 August 1987
ENGLISH
ORIGINAL: ARABIC/CHINESE/ENGLISH/
FRENCH/RUSSIAN/SPANISH

Forty-second session
Item 83 (e) of the provisional agenda*

DEVELOPMENT AND INTERNATIONAL ECONOMIC CO-OPERATION: ENVIRONMENT

Report of the World Commission on Environment and Development

Note by the Secretary-General

1. The General Assembly, in its resolution 38/161 of 19 December 1983, inter alia, welcomed the establishment of a special commission that should make available a report on environment and the global problématique to the year 2000 and beyond, including proposed strategies for sustainable development. The commission later adopted the name World Commission on Environment and Development. In the same resolution, the Assembly decided that, on matters within the mandate and purview of the United Nations Environment Programme, the report of the special commission should in the first instance be considered by the Governing Council of the Programme, for transmission to the Assembly together with its comments, and for use as basic material in the preparation, for adoption by the Assembly, of the Environmental Perspective to the Year 2000 and Beyond.

2. At its fourteenth session, held at Nairobi from 8 to 19 June 1987, the Governing Council of the United Nations Environment Programme adopted decision 14/14 of 16 June 1987, entitled "Report of the World Commission on Environment and Development" and, inter alia, decided to transmit the Commission's report to the General Assembly together with a draft resolution annexed to the decision for consideration and adoption by the Assembly.

3. The report of the World Commission on Environment and Development, entitled "Our Common Future", is hereby transmitted to the General Assembly. Decision 14/14 of the Governing Council, the proposed draft resolution and the comments of the Governing Council on the report of the Commission can be found in the report of the Governing Council on the work of its fourteenth session. 1/

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* A/42/150.

perspective that encompasses the factors underlying world poverty and international inequality.

9. These concerns were behind the establishment in 1983 of the World Commission on Environment and Development by the UN General Assembly. The Commission is an independent body, linked to but outside the control of governments and the UN system. The Commission's mandate gave it three objectives: to re-examine the critical environment and development issues and to formulate realistic proposals for dealing with them; to propose new forms of international cooperation on these issues that will influence policies and events in the direction of needed changes; and to raise the levels of understanding and commitment to action of individuals, voluntary organizations, businesses, institutes, and governments.

10. Through our deliberations and the testimony of people at the public hearings we held on five continents, all the commissioners came to focus on one central theme: many present development trends leave increasing numbers of people poor and vulnerable, while at the same time degrading the environment. How can such development serve next century's world of twice as many people relying on the same environment? This realization broadened our view of development. We came to see it not in its restricted context of economic growth in developing countries. We came to see that a new development path was required, one that sustained human progress not just in a few places for a few years, but for the entire planet into the distant future. Thus 'sustainable development' becomes a goal not just for the 'developing' nations, but for industrial ones as well.

2. The Interlocking Crises

11. Until recently, the planet was a large world in which human activities and their effects were neatly compartmentalized within nations, within sectors (energy, agriculture, trade), and within broad areas of concern (environment, economics, social). These compartments have begun to dissolve. This applies in particular to the various global 'crises' that have seized public concern, particularly over the past decade. These are not separate crises: an environmental crisis, a development crisis, an energy crisis. They are all one.

12. The planet is passing through a period of dramatic growth and fundamental change. Our human world of 5 billion must make room in a finite environment for another human world. The population could stabilize at between 8 and 14 billion sometime next century, according to UN projections. More than 90 per cent of the increase will occur in the poorest countries, and 90 per cent of that growth in already bursting cities.

13. Economic activity has multiplied to create a $13 trillion world economy, and this could grow five- or tenfold in the coming half-century. Industrial production has grown more than fiftyfold over the past century, four-fifths of this growth since 1950. Such figures reflect and presage profound impacts upon the

The World Commission on Environment and Development first met in October 1984, and published its Report 900 days later, in April 1987. Over those few days:

* The drought-triggered, environment-development crisis in Africa peaked, putting 35 million people at risk, killing perhaps a million.

* A leak from a pesticides factory in Bhopal, India, killed more than 2,000 people and blinded and injured over 200,000 more.

* Liquid gas tanks exploded in Mexico City, killing 1,000 and leaving thousands more homeless.

* The Chernobyl nuclear reactor explosion sent nuclear fallout across Europe, increasing the risks of future human cancers.

* Agricultural chemicals, solvents, and mercury flowed into the Rhine River during a warehouse fire in Switzerland, killing millions of fish and threatening drinking water in the Federal Republic of Germany and the Netherlands.

* An estimated 60 million people died of diarrhoeal diseases related to unsafe drinking water and malnutrition; most of the victims were children.

biosphere, as the world invests in houses, transport, farms, and industries. Much of the economic growth pulls raw material from forests, soils, seas, and waterways.

14. A mainspring of economic growth is new technology, and while this technology offers the potential for slowing the dangerously rapid consumption of finite resources, it also entails high risks, including new forms of pollution and the introduction to the planet of new variations of life forms that could change evolutionary pathways. Meanwhile, the industries most heavily reliant on environmental resources and most heavily polluting are growing most rapidly in the developing world, where there is both more urgency for growth and less capacity to minimize damaging side effects.

15. These related changes have locked the global economy and global ecology together in new ways. We have in the past been concerned about the impacts of economic growth upon the environment. We are now forced to concern ourselves with the impacts of ecological stress - degradation of soils, water regimes, atmosphere, and forests - upon our economic prospects. We have in the more recent past been forced to face up to a sharp increase in economic interdependence among nations. We are now forced to accustom ourselves to an accelerating ecological interdependence among nations. Ecology and economy are becoming ever more interwoven - locally, regionally, nationally, and globally - into a seamless net of causes and effects.

16. Impoverishing the local resource base can impoverish wider areas: deforestation by highland farmers causes flooding on lowland farms; factory pollution robs local fishermen of their catch. Such grim local cycles now operate nationally and regionally. Dryland degradation sends environmental refugees in their millions across national borders. Deforestation in Latin America and Asia is causing more floods, and more destructive floods, in downhill, downstream nations. Acid precipitation and nuclear fallout have spread across the borders of Europe. Similar phenomena are emerging on a global scale, such as global warming and loss of ozone. Internationally traded hazardous chemicals entering foods are themselves internationally traded. In the next century, the environmental pressure causing population movements may be increase sharply, while barriers to that movement may be even firmer than they are now.

17. Over the past few decades, life-threatening environmental concerns have surfaced in the developing world. Countrysides are coming under pressure from increasing numbers of farmers and the landless. Cities are filling with people, cars, and factories. Yet at the same time these developing countries must operate in a world in which the resources gap between most developing and industrial nations is widening, in which the industrial world dominates in the rule-making of some key international bodies, and in which the industrial world has already used much of the planet's ecological capital. This inequality is the planet's main 'environmental' problem; it is also its main 'development' problem.

18. International economic relationships pose a particular problem for environmental management in many developing countries. Agriculture, forestry, energy production, and mining generate at least half the gross national product of many developing countries and account for even larger shares of livelihoods and employment. Exports of natural resources remain a large factor in their economies, especially for the least developed. Most of these countries face enormous economic pressures, both international and domestic, to overexploit their environmental resource base.

19. The recent crisis in Africa best and most tragically illustrates the ways in which economics and ecology can interact destructively and trip into disaster. Triggered by drought, its real causes lie deeper. They are to be found in part in national policies that gave too little attention, too late, to the needs of smallholder agriculture and to the threats posed by rapidly rising populations. Their roots extend also to a global economic system that takes more out of a poor continent than it puts in. Debts that they cannot pay force African nations relying on commodity sales to overuse their fragile soils, thus turning good land to desert. Trade barriers in the wealthy nations - and in many developing nations - make it hard for African nations to sell their goods for reasonable returns, putting yet more pressure on ecological systems. Aid from donor nations has not only been inadequate in scale, but too often has reflected the priorities of the nations giving the aid, rather than the needs of the recipients.

The Commission has sought ways in which global development can be put on a sustainable path into the 21st Century. Some 5,000 days will elapse between the publication of our report and the first day of the 21st Century. What environmental crises lie in store over those 5,000 days?

During the 1970s, twice as many people suffered each year from 'natural' disasters as during the 1960s. The disasters most directly associated with environment/development mismanagement - droughts and floods - affected the most people and increased most sharply in terms of numbers affected. Some 18.5 million people were affected by drought annually in the 1960s, 24.4 million in the 1970s. There were 5.2 million flood victims yearly in the 1960s, 15.4 million in the 1970s. Numbers of victims of cyclones and earthquakes also shot up as growing numbers of poor people built unsafe houses on dangerous ground.

The results are not in for the 1980s. But we have seen 35 million afflicted by drought in Africa alone and tens of millions affected by the better managed and thus less-publicized Indian drought. Floods have poured off the deforested Andes and Himalayas with increasing force. The 1980s seem destined to sweep this dire trend on into a crisis-filled 1990s.

20. The production base of other developing world areas suffers similarly from both local failures and from the workings of international economic systems. As a consequence of the 'debt crisis' of Latin America, that continent's natural resources are now being used not for development but to meet financial obligations to creditors abroad. This approach to the debt problem is short-sighted from several standpoints: economic, political, and environmental. It requires relatively poor countries simultaneously to accept growing poverty while exporting growing amounts of scarce resources.

21. A majority of developing countries now have lower per capita incomes than when the decade began. Rising poverty and unemployment have increased pressure on environmental resources as more people have been forced to rely more directly upon them. Many governments have cut back efforts to protect the environment and to bring ecological considerations into development planning.

22. The deepening and widening environmental crisis presents a threat to national security - and even survival - that may be greater than well-armed, ill-disposed neighbours and unfriendly alliances. Already in parts of Latin America, Asia, the Middle East, and Africa, environmental decline is becoming a source of political unrest and international tension. The recent destruction of much of Africa's dryland agricultural production was more severe than if an invading army had pursued a scorched-earth policy. Yet most of the affected governments still spend far more to protect their people from invading armies than from the invading desert.

23. Globally, military expenditures total about $1 trillion a year and continue to grow. In many countries, military spending consumes such a high proportion of GNP that it itself does great damage to these societies' development efforts. Governments tend to base their approaches to 'security' on traditional definitions. This is most obvious in the attempts to achieve security through the development of potentially planet-destroying nuclear weapons systems. Studies suggest that the cold and dark nuclear winter following even a limited nuclear war could destroy plant and animal ecosystems and leave any human survivors occupying a devastated planet very different from the one they inherited.

24. The arms race - in all parts of the world - pre-empts resources that might be used more productively to diminish the security threats created by environmental conflict and the resentments that are fuelled by widespread poverty.

25. Many present efforts to guard and maintain human progress, to meet human needs, and to realize human ambitions are simply unsustainable - in both the rich and poor nations. They draw too heavily, too quickly, on already overdrawn environmental resource accounts to be affordable far into the future without bankrupting those accounts. They may show profits on the balance sheets of our generation, but our children will inherit the losses. We borrow environmental capital from future generations with no intention or prospect of repaying. They may damn us for our spendthrift ways, but they can never collect on our debt to them. We act as we do because we can get away with it: future generations do not vote; they have no political or financial power; they cannot challenge our decisions.

26. But the results of the present profligacy are rapidly closing the options for future generations. Most of today's decision makers will be dead before the planet feels the heavier effects of acid precipitation, global warming, ozone depletion, or widespread desertification and species loss. Most of the young voters of today will still be alive. In the Commission's hearings it was the young, those who have the most to lose, who were the harshest critics of the planet's present management.

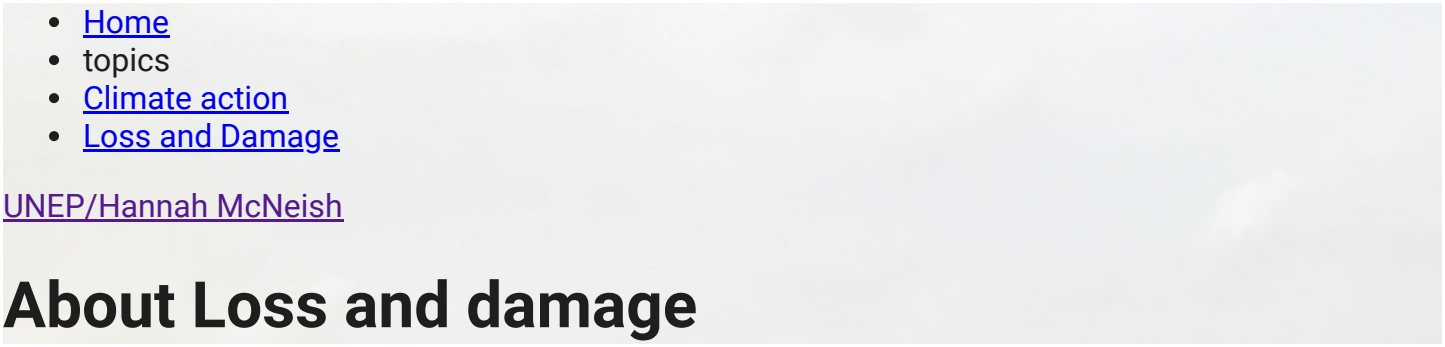
3. Sustainable Development

27. Humanity has the ability to make development sustainable - to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs. The concept of sustainable development does imply limits - not absolute limits but limitations imposed by the present state of technology and social organization on environmental resources and by the ability of the biosphere to absorb the effects of human activities. But technology and social organization can be both managed and improved to make way for a new era of economic growth. The Commission believes that widespread poverty is no longer inevitable. Poverty is not only an evil in itself, but sustainable development requires meeting the basic needs of all and extending to all the opportunity to

Annex 490

"About loss and damage", *UN Environment Programme*, 2024

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About Loss and damage

In Climate Action

What is Loss & Damage?

Loss and damage refers to the negative effects of climate change that occur despite mitigation and adaptation efforts. While mitigation addresses the causes of climate change (like reducing greenhouse gas emissions) and adaptation addresses its impacts (like building sea walls to prevent flooding), loss and damage is concerned with the unavoidable and irreversible impacts of the climate crisis.

Climate change impacts and risks are becoming more complex and difficult to manage. Scientific evidence suggests that loss and damage is unequally distributed and not comprehensively addressed by current adaptation and mitigation, particularly in vulnerable developing countries. Multiple climate hazards will occur simultaneously and interact, resulting in compounding risks across sectors and regions.

Hard limits to adaptation have already been reached in some ecosystems. One clear example of this is seen in various low-lying islands that may become uninhabitable due to sea-level rise. Vulnerable islands have experienced losses in biodiversity, ecosystems, property, cultural heritage, and livelihoods. In some cases, there will be limits to what communities can do to adapt, with many subject to displacement, migration, and relocation.

A 2023 analysis found that, between 2000 and 2019, the world suffered at least $2.8 trillion in loss and damage from climate change – costing around $16 million per hour.

The concept often falls into two categories:

- Economic loss and damage refers to negative impacts where the costs are quantifiable, such as damage to infrastructure or reduced crop yields.
- Non-economic loss and damage refers to negative impacts that are not easily traded in markets, and typically harder to measure in monetary terms, such as loss of culture, displacement and way of life. These tends to be more irreparable and irreversible.

Loss and damage is a subject closely related to the concept of climate justice and equity because the world's most climate-vulnerable countries are often the lowest emitters of greenhouse gases. This raises the question of who exactly should pay for loss and damage in poorer countries where resources are limited.

The term 'loss and damage' was formally recognised in 2013 at the 19th Conference of the Parties (Cop19) in Warsaw, where the world saw the establishment of the Warsaw International Mechanism

for Loss and Damage. Since then, interest has only grown and an increasing number of countries are discussing loss and damage in their Nationally Determined Contributions.

Loss & Damage Funding Arrangements

At Cop27 in 2022 countries agreed to establish a Loss and Damage Fund, which would provide financial assistance to climate-vulnerable countries. The fund was officially operationalized at Cop28 in November 2023.

Whilst progress in recognising and addressing loss and damage is increasingly urgent, it is widely acknowledged that such efforts should not detract from tackling the root causes of climate change and building global resilience to its impacts. The best method for reducing loss and damage is still – and will always be – climate adaptation and mitigation.

What is UNEP doing on Loss & Damage?

“The absolute necessity of a Loss and Damage Fund has come to the fore.” – Inger Andersen, Executive Director of UNEP.

Driving Action through Science and Research

UNEP is at the forefront of producing up-to-date, accurate science on the impacts of climate change. The Adaptation Gap Reports quantify the level of adaptation finance needed to avert loss and damage, while the Emissions Gap Reports examine the extent to which greenhouse gas emissions will need to fall to limit global warming to 1.5 degrees above pre-industrial levels.

Through its compilation of climate vulnerability assessments, developed from its portfolio of climate adaptation projects around the world, UNEP produces the scientific basis that informs the understanding of extreme weather events impact, and how solutions can be designed to avert and minimise loss and damage. UNEP’s research also covers key emerging loss and damage issues, such as how governments will respond to and integrate refugees displaced by climate impacts.

Technical Assistance and Strategic Advocacy

UNEP extends its expertise to the Transitional Committee on Loss and Damage and the Glasgow Dialogue, providing technical assistance to help members states make progress on addressing loss and damage, to support the creation of new loss and damage funding arrangements, and to identify possible financing solutions like carbon pricing, taxes levies, and ‘cap-and-trade’ systems. Through programme development, written submissions, technical presentations, and the sharing of best practices, UNEP’s contributions have a particular emphasis on ecosystem restoration, recovery and implementation of nature-based solutions.

Furthermore, UNEP crafts its advocacy to drive reforms within the world’s financial institutions and banks to be better able to provide finance, and calls for simplicity and expediency for the institutional arrangements of the structure of the Loss and Damage Fund, arguing that countries will need to have access to the fund with a degree of predictability. This closely ties in with the kind of financial reforms needed to deliver on the 1.5 degree goal, doubling investment by 2025 and eliminating nature-negative finance flows (see UNEP State of Finance for Nature).

Climate Adaptation & Mitigation

UNEP underscores the importance of averting and minimising loss and damage through scaled-up, expedient and accelerated climate adaptation and mitigation strategies. Prioritising ecosystem-based approaches, the implementation of National Adaptation Plans, and expanding Early Warning Systems



Limiting global warming to 2°C and 1.5°C requires Nationally Determined Contributions (NDCs) to reduce global emissions by 30 and 45 per cent, respectively, by 2030. UNEP has supported partner countries to translate these NDCs into concrete sector strategies and actions ready for financing and implementation, and to increase the their ambition. On climate mitigation, UNEP takes a multifaceted approach to help countries move towards low-emissions strategies, particularly through the Six Sector Solutions – a roadmap for reducing greenhouse gas emissions to limit global warming to 1.5 degree above pre-industrial temperatures by 2030.
In Climate Action

Topics

- Climate Action

Related Sustainable Development Goals



Annex 491

"International liability for injurious consequences arising out of acts not prohibited by international law", Report of the Commission to the General Assembly on the work of its forty-seven session, Yearbook of the International Law Commission, A/CN.4/SER.A/1995/Add.1 (Part 1), *International Law Commission,* 23 June 1995, pages 51, 89-92

A/CN.4/SER.A/1995/Add.1 (Part 1)

YEARBOOK OF THE INTERNATIONAL LAW COMMISSION

1995

Volume II
Part One

Documents of the forty-seventh session

UNITED NATIONS
New York and Geneva, 2006

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

References to the *Yearbook of the International Law Commission* are abbreviated to *Yearbook ...*, followed by the year (for example, *Yearbook ... 1994*).

The *Yearbook* for each session of the International Law Commission comprises two volumes:

Volume I: summary records of the meetings of the session;

Volume II (Part One): reports of special rapporteurs and other documents considered during the session;

Volume II (Part Two): report of the Commission to the General Assembly.

All references to these works and quotations from them relate to the final printed texts of the volumes of the *Yearbook* issued as United Nations publications.

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The reports of the special rapporteurs and other documents considered by the Commission during its forty-seventh session, which were originally issued in mimeographed form, are reproduced in the present volume, incorporating the corrigenda issued by the Secretariat and the editorial changes required for the presentation of the final text.

A/CN.4/SER.A/1995/Add.1 (Part 1)

UNITED NATIONS PUBLICATION
Sales No. E.97.V.2 (Part 1) ISBN-13: 978-92-1-133518-7
Complete set of two volumes: ISBN 92-1-133520-5
ISSN 0082-8289

INTERNATIONAL LIABILITY FOR INJURIOUS CONSEQUENCES ARISING OUT OF ACTS NOT PROHIBITED BY INTERNATIONAL LAW

[Agenda item 5]

DOCUMENT A/CN.4/468

Eleventh report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur

[*Original: Spanish*]
[*25 May 1995*]

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	Source
International Convention on Civil Liability for Oil Pollution Damage (Brussels, 29 November 1969)	United Nations, *Treaty Series*, vol. 973, p. 3.
and the Protocols thereto of 1976, 1984 and 1992 modifying the Convention (London, 19 November 1976, 25 May 1984 and 27 November 1992)	IMO (Sales No. 457.85.15.E) and *International Environmental Law: Multilateral Treaties*, Anni Lukács and R. Michels, eds. (London, The Hague, Boston, Kluwer Law International, 1995), vol. III.
Convention on Long Range Transboundary Air Pollution (Geneva, 13 November 1979)	United Nations, *Treaty Series*, vol. 1302, p. 118.
Convention on the Regulation of Antarctic Mineral Resource Activities (Wellington, 2 June 1988)	*International Legal Materials* (Washington, D.C.), vol. XXVII (1988), p. 868.
Convention on Civil Liability for Damage Caused during Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD) (Geneva, 10 October 1989)	United Nations publication (Sales No. E.90.II.E.39).

171. Finally, the United Nations Convention on the Law of the Sea provides in article 139 that States parties to the Convention shall ensure that activities in the "Area" (meaning, underwater areas and seabeds beyond national jurisdictions), whether carried out by the State or its nationals, are in conformity with the Convention. When a State party fails to carry out its obligation, it will be liable for damage. The same liability is imposed upon an international organization for activities in the "Area". In this case, States members of international organizations acting together bear joint and several liability. States members of international organizations involved in activities in the "Area" must ensure the implementation of the requirements of the Convention with respect to those international organizations.[146]

172. Similarly, article 263 of the Convention provides that States and international organizations shall be liable for damage caused by pollution of the marine environment arising out of marine scientific research undertaken by them or on their behalf.

2. Judicial decisions and State practice outside treaties

173. Judicial decisions, official correspondence and inter-State relations show that, in certain circumstances, States are held accountable for the private activities conducted within their territorial jurisdiction and for the activities they themselves conduct within or beyond the limits of their territorial border. Even when States have refused to accept liability as a legal principle, they have nevertheless acted as though they accepted such liability, whatever the terms used to describe their position. Most of the cases and incidents examined in this section relate to activities conducted by States.

174. In its judgment of 9 April 1949 in the *Corfu Channel* case (merits), ICJ imposed liability upon Albania for failure to notify British shipping of a dangerous situation in its territorial waters, whether or not that situation had been caused by the Government of Albania. ICJ found that it was the obligation of Albania to notify, for the benefit of shipping in general, the existence of mines in its territorial waters, not only by virtue of the Hague Convention No. VIII of 1907, but also of "certain general and well recognized principles, namely: elementary considerations of humanity, even more exacting in peace than in war, … and every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States".[147] The Court found that no attempt had been made by Albania to prevent the disaster and it therefore held Albania "responsible under international law for the explosions … and for the damage and loss of human life".[148]

175. In its claim against the USSR in 1979 following the accidental crash on Canadian territory of the nuclear-powered Soviet satellite, Cosmos-954, Canada sought to impose "absolute liability" on the Soviet Union by reason of the damage caused by the accident. In arguing the liability of the Soviet Union, Canada invoked not only "relevant international agreements", including the Convention on International Liability for Damage Caused by Space Objects, but also "general principles of international law".[149]

176. In connection with the construction of a highway in Mexico, in proximity to the border with the United States of America, the United States Government, considering that, notwithstanding the technical changes that had been made in the project at its request, the highway did not offer sufficient guarantees for the security of property situated in United States territory, reserved its rights in the event of damage resulting from the construction of the highway. In a note addressed on 29 July 1959 to the Minister of Foreign Relations of Mexico, the United States Ambassador to Mexico concluded:

> In view of the foregoing, I am instructed to reserve all the rights that the United States may have under international law in the event that damage in the United States results from the construction of the highway.[150]

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ganization and those of its members which are States Parties to this Convention shall be jointly and severally liable; provided, however, that:

"(*a*) any claim for compensation in respect of such damage shall be first presented to the organization;

"(*b*) only where the organization has not paid, within a period of six months, any sum agreed or determined to be due as compensation for such damage, may the claimant State invoke the liability of the members which are States Parties to this Convention for the payment of that sum.

"4. Any claim, pursuant to the provision of this Convention, for compensation is respect of damage caused to an organization which has made a declaration in accordance with paragraph 1 of this article shall be presented by a State member of the organization which is a State Party to this Convention."

[146] Article 139 of the Convention (Responsibility to ensure compliance and liability for damage) reads:

"1. States Parties shall have the responsibility to ensure that activities in the Area, whether carried out by States Parties, or state enterprises or natural or juridical persons which possess the nationality of States Parties or are effectively controlled by them or their nationals, shall be carried out in conformity with this Part. The same responsibility applies to international organizations for activities in the Area carried out by such organizations.

"2. Without prejudice to the rules of international law and Annex III, article 22, damage caused by the failure of a State Party or international organization to carry out its responsibilities under this Part shall entail liability; States Parties or international organizations acting together shall bear joint and several liability. A State Party shall not however be liable for damage caused by any failure to comply with this part by a person whom it has sponsored under article 153, paragraph 2 (*b*), if the State Party has taken all necessary and appropriate measures to secure effective compliance under article 153, paragraph 4, and annex III, article 4, paragraph 4.

"3. States Parties that are members of international organizations shall take appropriate measures to ensure the implementation of this article with respect to such organizations."

[147] *I.C.J. Reports 1949*, p. 22.

[148] Ibid., p. 36. For diverse views as regards whether this judgment establishes strict liability for States, see paras. 96 and 97 above.

[149] See footnote 96 above.

[150] See *Digest of International Law* (Washington, D.C.), Marjorie M. Whiteman, ed., vol. 6, 1968, p. 262.

177. In the case of the Rose Street Canal, both the United States and Mexico reserved the right to invoke the accountability of the State whose construction activities might cause damage in the territory of the other State.[151]

178. In the correspondence between Canada and the United States regarding the United States Cannikin underground nuclear tests on Amchitka, Canada reserved its rights to compensation in the event of damage.[152]

179. The series of United States nuclear tests on Eniwetok Atoll on 1 March 1954 caused injuries extending far beyond the danger area: they injured Japanese fishermen on the high seas and contaminated a great part of the atmosphere and a considerable quantity of fish, thus seriously disrupting the Japanese fish market. Japan demanded compensation. In a note dated 4 January 1955, the United States Government, completely avoiding any reference to legal liability, agreed to pay compensation for injury caused by the tests:

> ... The Government of the United States of America has made clear that it is prepared to make monetary compensation as an additional expression of its concern and regret over the injuries sustained.
>
> ... The United States of America hereby tenders, ex gratia, to the Government of Japan, without reference to the question of legal liability, the sum of two million dollars for purposes of compensation for the injuries or damages sustained as a result of nuclear tests in the Marshall Islands in 1954.
>
> …
>
> It is the understanding of the Government of the United States of America that the Government of Japan, in accepting the tendered sum of two million dollars, does so in full settlement of any and all claims against the United States of America or its agents, nationals or juridical entities for any and all injuries, losses or damages arising out of the said nuclear tests.[153]

180. In the case of the injuries sustained in 1954 by the inhabitants of the Marshall Islands, then a Trust Territory administered by the United States of America, the latter agreed to pay compensation. A report of the Committee on Interior and Insular Affairs of the United States Senate stated that, owing to an unexpected wind shift immediately following the nuclear explosion, the 82 inhabitants of the Rongelap Atoll had been exposed to heavy radioactive fallout. After describing the injuries to persons and property suffered by the inhabitants and the immediate and extensive medical assistance provided by the United States, the report concluded: "It cannot be said, however, that the compensatory measures heretofore taken are fully adequate …" The report disclosed that in February 1960 a complaint against the United States had been lodged with the high court of the Trust Territory with a view to obtaining US$ 8,500,000 as compensation for property damage, radiation sickness, burns, physical and mental agony, loss of consortium and medical expenses. The suit had been dismissed for lack of jurisdiction. The report indicated, however, that bill No. 1988 (on payment of compensation) presented in the House of Representatives was "needed to permit the United States to do justice to these people". On 22 August 1964, President Johnson signed into law an act under which the United States assumed "compassionate responsibility" to compensate inhabitants of the Rongelap Atoll, in the Trust Territory of the Pacific Islands, for radiation exposures sustained by them as a result of a thermonuclear detonation at Bikini Atoll in the Marshall Islands on 1 March 1954 and authorized US$ 950,000 to be paid in equal amounts to the affected inhabitants of Rongelap.[154] According to another report, in June 1982 the Reagan Administration was prepared to pay US$ 100 million to the Government of the Marshall Islands in settlement of all claims against the United States by islanders whose health and property had been affected by United States nuclear weapons tests in the Pacific between 1946 and 1963.[155]

181. The arbitral award rendered on 27 September 1968 in the Gut Dam case also bears on State liability. In 1874, a Canadian engineer had proposed to his Government the construction of a dam between Adam Island, in Canadian territory, and Les Galops Island, in the United States, in order to improve navigation on the St. Lawrence River. Following investigations and the exchange of many reports, as well as the adoption of legislation by the United States Congress approving the project, the Canadian Government undertook the construction of the dam in 1903. However, it soon became clear that the dam was too low to serve the desired purposes and, with United States permission, Canada increased its height. Between 1904 and 1951, several man-made changes affected the flow of water in the Great Lakes-St. Lawrence River Basin. While the dam itself was not altered in any way, the level of the waters in the river and in nearby Lake Ontario increased. In 1951-1952, the waters reached unprecedented levels which, in combination with storms and other natural phenomena, resulted in extensive flooding and erosion, causing injuries on both the north and south shores of the lakes. In 1953, Canada removed the dam as part of the construction of the St. Lawrence Seaway, but the United States claims for damages allegedly resulting from the presence of the Gut Dam continued to fester for some years.[156]

182. The Lake Ontario Claims Tribunal, established in 1965 to resolve the matter, recognized the liability of Canada, without finding any fault or negligence on the part of Canada. The Tribunal, of course, relied a great deal on the terms of the second condition stipulated in the instrument signed on 18 August 1903 and 10 October 1904, whereby the United States Secretary of War had approved construction of the dam, as well as on Canada's unilateral acceptance of liability. Furthermore, the Tribunal found Canada liable not only towards the inhabitants of Les

[151] Ibid., pp. 263 *et seq*.

[152] See *International Canada* (Toronto), vol. 2, 1971, p. 97.

[153] *Department of State Bulletin* (Washington, D.C.), vol. 32, No. 812, 17 January 1955, pp. 90–91.

[154] See *Digest of International Law* (footnote 150 above), vol. 4, 1965, p. 567.

[155] See *International Herald Tribune*, 15 June 1982, p. 5, col. 2.

[156] See the report of the United States agent before the Lake Ontario Claims Tribunals, "Canada-United States Settlement of Gut Dam Claims (September 27, 1968)", ILM, vol. 8, 1969, pp. 128–138.

Galops in connection with the injuries caused by the dam, but also towards all United States citizens. Such responsibility was, moreover, found not to be limited in time to some initial testing period. The Tribunal concluded that the only questions remaining to be settled were whether the Gut Dam had caused the damage for which claims had been filed and the amount of compensation.

183. Other transboundary incidents have occurred owing to activities carried out by Governments within their territories, with effects on a neighbouring State, but they have not given rise to official demands for compensation. These incidents have of course been minor and of an accidental nature.

184. In 1949, Austria made a formal protest to the Hungarian Government for installing mines in its territory close to the Austrian border, and demanded their removal, but it did not claim compensation for injuries caused by the explosion of some of the mines on its territory. Hungary had apparently laid the mines to prevent illegal passage across the border. Austria was concerned that during a flood the mines might be washed into Austrian territory and endanger the lives of its nationals resident near the border. These protests, however, did not prevent Hungary from maintaining its minefields. In 1966, a Hungarian mine exploded in Austrian territory, causing extensive damage. The Austrian Ambassador lodged a strong protest with the Hungarian Foreign Ministry, accusing Hungary of violating the uncontested international legal principle according to which measures taken in the territory of one State must not endanger the lives, health and property of citizens of another State. Following a second accident, occurring shortly after, Austria again protested to Hungary, stating that the absence of a public commitment by Hungary to take all measures to prevent such accidents in the future was totally inconsistent with the principle of "good neighbourliness". Hungary subsequently removed or relocated all minefields away from the Austrian border.[157]

185. In October 1968, during a shooting exercise, a Swiss artillery unit erroneously fired four shells into the territory of Liechtenstein. The facts concerning this incident are difficult to ascertain. However, the Swiss Government, in a note to the Government of Liechtenstein, expressed regret for the involuntary violation of the frontier. The Swiss Government stated that it was prepared to compensate all damage caused and that it would take all necessary measures to prevent a recurrence of such incidents.[158]

186. Judicial decisions and official correspondence demonstrate that States have agreed to assume liability for the injurious impact of activities by private entities operating within their territory. The legal basis for such State liability appears to derive from the principle of territorial sovereignty, a concept investing States with exclusive rights within certain portions of the globe. This concept of the function of territorial sovereignty was emphasized in the *Island of Palmas* case (4 April 1958).[159] The arbitrator in that case stated that territorial sovereignty:

> … cannot limit itself to its negative side, i.e. to excluding the activities of other States; for it serves to divide between nations the space upon which human activities are employed, in order to assure them at all points the minimum of protection of which international law is the guardian.[160]

187. This concept was later formulated in a more realistic way, namely, that actual physical control is the sound basis for State liability and responsibility. ICJ, in its advisory opinion of 21 June 1971 concerning Namibia, stated:

> … Physical control of a territory, and not sovereignty or legitimacy of title, is the basis of State liability for acts affecting other States.[161]

188. From this perspective, the liability of States for extraterritorial damage caused by private persons under their control is an important issue to be examined in the context of this study. The following are examples of State practice touching upon this source of State liability.

189. In 1948, a munitions factory in Arcisate, in Italy, near the Swiss frontier, exploded and caused varying degrees of damage in several Swiss communes. The Swiss Government demanded reparation from the Italian Government for the damage sustained; it invoked the principle of good neighbourliness and argued that Italy was liable since it tolerated the existence of an explosives factory, with all its attendant hazards, in the immediate vicinity of an international border.[162]

190. In 1956, the River Mura, forming the international boundary between the former Yugoslavia and Austria, was extensively polluted by the sediments and mud which several Austrian hydroelectric facilities had released by partially draining their reservoirs in order to forestall major flooding. Yugoslavia claimed compensation for the economic loss incurred by two paper mills and for damage to fisheries. In 1959, the two States agreed on a settlement, pursuant to which Austria paid monetary compensation and delivered a certain quantity of paper to Yugoslavia.[163] Although the settlement was reached in the framework of the Permanent Austro-Yugoslavian Commission for the River Mura, this is a case in which the injured State invoked the direct liability of the controlling State and the controlling State accepted the claim to pay compensation.

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[157] G. Handl, "Conduct of abnormally dangerous activities in frontier areas: the case of nuclear power plant siting" , *Ecology Law Quarterly* (Berkeley, Calif.), vol. 7, 1978, pp. 23–24.

[158] *Annuaire suisse de droit international, 1969-1970* (Zurich), vol. 26, p. 158.

[159] *Netherlands* v. *United States of America*, UNRIAA, vol. II, p. 829.

[160] Ibid., p. 839.

[161] *Legal Consequences for States of the Continued Presence of South Africa in Namibia (South West Africa) notwithstanding Security Council Resolution 276 (1970), Advisory Opinion, I.C.J. Reports 1971*, p. 54, para. 118.

[162] P. Guggenheim, "La pratique suisse (1956)", *Annuaire suisse de droit international, 1957* (Zurich), vol. 14, p. 169.

191. In 1971, the Liberian tanker *Juliana* ran aground and split apart off Niigata, on the west coast of the Japanese island of Honshu. The oil of the tanker washed ashore and extensively damaged local fisheries. The Liberian Government (the flag State) offered 200 million yen to the fishermen for damage, which they accepted.[164] In this affair, the Liberian Government accepted the claims for damage caused by the act of a private person. It seems that no allegations of wrongdoing on the part of Liberia were made at an official diplomatic level.

192. Following the accidental spill of 45,000 litres of crude oil into the sea at Cherry Point, in the State of Washington, and the resultant pollution of Canadian beaches (see para. 159 above), the Canadian Government addressed a note to the United States Department of State in which it expressed its grave concern about this "ominous incident" and noted that "the Government wishe[d] to obtain firm assurances that full compensation for all damages, as well as the cost of clean-up operations, w[ould] be paid by those legally responsible".[141] Reviewing the legal implications of the incident before the Canadian Parliament, the Canadian Secretary of State for External Affairs stated:

> We are especially concerned to ensure observance of the principle established in the 1938 *Trail Smelter* arbitration between Canada and the United States. This has established that one country may not permit the use of its territory in such a manner as to cause injury to the territory of another and shall be responsible to pay compensation for any injury so suffered. Canada accepted this responsibility in the *Trail Smelter* case and we would expect that the same principle would be implemented in the present situation. Indeed, this principle has already received acceptance by a considerable number of States and hopefully it will be adopted at the Stockholm Conference as a fundamental rule of international environmental law.[165]

193. Canada, referring to the precedent of the *Trail Smelter* case, claimed that the United States was responsible for the extraterritorial damage caused by acts occurring under its territorial control, regardless of whether the United States was at fault. The final resolution of the dispute did not involve the legal principle invoked by Canada; the private company responsible for the pollution offered to pay the costs of the clean-up operations; the official United States response to the Canadian claim remains unclear.

194. In 1973, a major contamination occurred in the Swiss canton of Bâle-Ville owing to the production of insecticides by a French chemical factory across the border. The contamination caused damage to the agriculture and environment of that canton and destroyed some 10,000 litres of milk production per month.[166] The facts about the case and the diplomatic negotiations that followed are difficult to ascertain. The Swiss Government apparently intervened and negotiated with the French authorities in order to halt the pollution and obtain compensation for the damage. The reaction of the French authorities is unclear; it appears, however, that persons injured brought charges in French courts.

195. During negotiations between the United States and Canada regarding a plan for oil prospection in the Beaufort Sea, near the Alaskan border, the Canadian Government undertook to guarantee payment of any damage that might be caused in the United States by the activities of the private corporation that was to undertake the prospection. It should be noted that, although the private corporation was to furnish a bond covering compensation for potential victims in the United States, the Canadian Government accepted liability on a subsidiary basis for payment of the cost of transfrontier damage should the bonding arrangement prove to be inadequate.

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[165] *Canadian Yearbook* … (footnote 141 above), p. 334.

[163] See G. Handl, "State liability for accidental transnational environmental damage by private persons", AJIL, vol. 74, 1980, pp. 545–546; *The Times*, London, 2 December 1971, p. 8, col. 1.

[164] *The Times*, London, 1 October 1974; *Revue générale de droit international public* (Paris), vol. 80, 1975, p. 842.

[166] L. Caflisch, "La pratique suisse en matière de droit international public, 1973", *Annuaire suisse de droit international, 1974* (Zurich), vol. XXX, p. 147.

CHAPTER III

Exoneration from liability

196. In domestic laws, some grounds for exoneration from liability have been anticipated. For example, in the United States of America, section 2703 (*a*) of OPA provides for "complete defence", meaning that a responsible party is not liable if it shows by a preponderance of evidence that:

> The discharge and resulting damage or removal costs were caused solely by:
>
> 1. An act of God;
>
> 2. An act of war;
>
> 3. An act or omission of a third party: other than an employee or agent of the responsible party or a third party whose act or omission occurs in connection with any contractual relationship with the responsible party ... But a "third party" defense is available only if the responsible party establishes by a preponderance of the evidence that it:
>
> A. Exercised due care with respect to the oil concerned, taking into consideration the characteristics of the oil and in light of all relevant facts and circumstances; and
>
> B. Took precautions against foreseeable acts or omissions of any such third party and the foreseeable consequences of those acts or omissions.

Annex 492

Third Report on State responsibility by James Crawford, Special Rapporteur, A/CN.4/507, *International Law Commission,* 15 March 2000, pages 37-42

United Nations A/CN.4/507

General Assembly

Distr.: General
15 March 2000

Original: English

International Law Commission
Fifty-second session
Geneva, 1 May-9 June and 10 July-18 August 2000

Third report on State responsibility

by Mr. James Crawford, Special Rapporteur

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(b) Some preliminary issues

82. Before turning to the possible ways in which these concerns may be resolved, it is necessary to analyse article 40 in more detail. Four issues may be mentioned.

The identification of legal interest and subjective right

83. An initial question is the identification for all purposes of responsibility with the subjective rights of an injured State or States. This was rooted in earlier theories of State responsibility (especially Anzilotti's), based on the paradigm of bilateral relations as characteristic of international law. At the time of his Second Report (issued in the same year as the Court's dictum in *Barcelona Traction*), Special Rapporteur Ago had only just begun to formulate the idea of responsibility to the international community as a whole. For this purpose it matters little whether we use the language of article 19 ("international crimes") or that of the Court itself when it referred to an obligation held towards the international community as a whole (*erga omnes*).[162] In either case, there is a problem in the immediate identification of that responsibility with the "subjective" rights of particular States.

84. The term "subjective" may be used here only to make the point that the "secondary" legal relations arising from a breach of an international obligation are, necessarily, legal relations between the author of the breach and other persons or entities. There is no such thing as "responsibility in the air"; responsibility is always responsibility to persons, and is in that sense "subjective".[163] But this does not mean that obligations of a collective or communitarian character are reduced forthwith to bilateral relations. In discussing the strict correlation between obligation and rights, implicit reliance was laid on the work of W. N. Hohfeld and his "jural correlatives".[164] But Hohfeld stressed the variety of legal relations, and was certainly not concerned to reduce legal relations to a single form. In the field of international relations there is no longer (if there ever was) any a priori reason to reduce all relations of responsibility to the form of a bilateral right-duty relation of two States, as under a bilateral treaty.

85. For example, Ethiopia and Liberia were not themselves the beneficiaries of the obligation they invoked in the *Second South West Africa* cases.[165] The beneficiaries were the people of South West Africa itself; it was their "subjective" right to have the Territory administered on their behalf and in their interest which was at stake.[166]

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[162] For the reasons given in his First Report, the Special Rapporteur prefers the use of the Court's terminology of obligations to the international community as a whole. This is certainly the case in the context of article 40, which is concerned with the right to invoke responsibility rather than for the consequences of doing so: see First Report, A/CN.4/490/Add.3, para. 98.

[163] In the Special Rapporteur's view, the possible confusion between a very unusual sense of the term "subjective" and its more usual sense is a sufficient reason for avoiding it altogether. In its ordinary sense, there can be no "non-subjective" obligation or right; the term is therefore unnecessary as well as potentially misleading. See Second Report, A/CN.4/498, para. 6, and to similar effect, de Hoogh, *Obligations Erga Omnes and International Crimes*, p. 20.

[164] See W. N. Hohfeld, *Fundamental Legal Conceptions* (Yale UP, New Haven, 1923, reprinted in 1964).

[165] *I.C.J. Reports*, 1966, p. 6.

[166] In the *Namibia Opinion*, *I.C.J. Reports, 1971*, p. 16 at p. 56 (para. 127), the Court emphasized that in the case of South West Africa "the injured entity is a people", and not a State or group of States. Cf. Riphagen, Preliminary Report, *Yearbook … 1980*, vol. II, Part One, p. 118 (paras. 56-57).

Ethiopia and Liberia claimed an adjectival or procedural right, to seek to ensure that South Africa complied with its obligations to the people of the Territory. There is no analytical reason for disallowing such a legal relation,[167] and Hohfeld would have had no difficulty in fitting it into his scheme.[168] A legal system which seeks to reduce the legal relations between South Africa, the people of the Territory and the two applicant States to a bilateral form is deficient. Yet this is what article 40 appears to do, with its "exact" equivalents.[169]

The treatment of human rights obligations

86. A second question involves the treatment of human rights obligations. Under article 40 (2) (e) (iii), every State bound by a human rights obligation is injured by its breach.[170] Indeed, on the face of it every State is considered as injured even by an individual and comparatively minor breach of the fundamental right of one person (not its national). According to the commentary, "it is clear that not every one of the rights enumerated in these instruments, nor every single act or omission attributable to a State which could be considered as incompatible with the respect of such rights … must necessarily be qualified as giving rise to the application of the present provision".[171] But this protestation is not reflected in the text of paragraph (2) (e) (iii). Nor is any attempt made (e.g., by reference to the notion of systematic or gross breaches) to distinguish between cases where all States are injured and those where the individual beneficiary of the human right is injured and States parties to the human rights obligation have a general interest in compliance.

87. Even in the case of well-attested, gross or systematic violations of human rights, it is suggested that a distinction should still be drawn between the rights of the victims and the responses of States. Otherwise the effect of article 40 (2) (e) (iii) is to translate human rights into States' rights, and this seems no more justified when one is dealing with systematic violations than with individual ones. It may be that third States are considered as having more extensive rights to intervene or to

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[167] A narrow majority of the Court in 1966 held that the applicant States had no individual legal interests in the due administration of the Mandate, which they could vindicate under the compromissory clause. But the "majority" did not deny that the Mandate *could* have recognized the right of all States Members of the League to enforce the obligations of the mandatory by proceedings before the Court: see, e.g., *I.C.J. Reports, 1996*, p. 6, at p. 23 (para. 16). The result was reached by restrictive interpretation of the compromissory clause. In any event the decision was strongly criticized and must now be read in the light of the Court's dictum in the *Barcelona Traction* case, *I.C.J. Reports, 1970*, p. 3 at pp. 32-33.

[168] There are certainly cases (e.g., articles 45 and 48 of the European Convention on Human Rights, 1950; or the successor provision, article 33 of the Eleventh Protocol, 1994) in which such a general interest has been recognized, without equating the rights of the States taking action to the substantive rights they are seeking to protect.

[169] In *Barcelona Traction* itself, the Court noted that "Responsibility is the necessary corollary of a right" (*I.C.J. Reports, 1970*, p. 3 at p. 33 (para. 36)). But it did so after first drawing a distinction between the rights of States vis-à-vis other States (e.g., in the field of diplomatic protection) and obligations *erga omnes* which all States have a "legal interest" in protecting. It was not saying that the only cases of responsibility are cases where a State's individual rights are infringed.

[170] As drafted, para. (e) (iii) applies to any "right … created or … established for the protection of human rights and fundamental freedoms". It is odd to speak about a right established for the protection of a right: though this seems to be merely a drafting problem, it raises further doubts as to the scope of the subparagraph.

[171] Commentary to article 40 [5], para. (22), in *supra*, footnote 133, p. 27.

respond to systematic breaches of human rights than they might have in cases of individual breach, though the International Covenants of 1966 do not say so.[172] But even if the rights of third States are more extensive, they do not seem to change in character. The States concerned may be representing the victims, but they are not to be identified with them, and they do not become the right-holders because they are recognized as having a legal interest in the author State's compliance with its human rights obligations.

88. Paragraph (2) (e) (iii) also raises the question why human rights are singled out as a category for special treatment. According to the commentary:

> "The interests protected by [human rights] provisions are not allocatable to a particular State. Hence the necessity to consider in the first instance every other State party to the multilateral convention, or bound by the relevant rule of customary law, as an injured State."[173]

But just because human rights obligations under multilateral treaties or general international law are not "allocatable" or owed to any particular State does not make it necessary that all States concerned should be considered as obligees, and certainly not "in the first instance". Moreover, human rights obligations are not the only class of international obligations whose performance cannot be considered as affecting any "particular State" considered alone. This is also true of some obligations in such fields as human development, world heritage and environmental protection, which could also have been mentioned in article 40.

89. What does seem to be special about human rights obligations (as compared with these other fields) is that they are specifically formulated in terms of the rights of individuals, whereas, for example, international environmental instruments speak of the obligations of States. By contrast, international law rules relating to the treatment of aliens in the field of diplomatic protection were deliberately articulated as involving the rights of States, as the Permanent Court stressed in *Mavrommatis Palestine Concessions*.[174] The use of the language of human rights in the Charter of the United Nations and in human rights texts since 1948 has involved a considered and consistent change in terminology. It must have legal significance. But it provides no reason for treating human rights obligations as "allocatable" to States "in the first instance".

Other cases of injury arising from multilateral legal relations

90. Apart from "international crimes", two other cases are given in article 40 of the recognition of multilateral rights. One case, not identified in article 40, also calls for consideration.

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[172] Different rules of admissibility apply to inter-State complaints of systematic violations of human rights than to individual ones: see e.g. the judgement of the European Court of Human Rights in *Ireland v. United Kingdom*, ECHR Series A, No. 25 (1978), p. 64 (para. 159).

[173] Commentary to article 40 [5], para. (20), in *supra*, footnote 133, p. 27.

[174] *PCIJ*, Series A, No. 2 (1924), p. 12. The same principle was affirmed by the International Court in *Reparations for Injuries suffered in the Service of the United Nations, I.C.J. Reports, 1949* p. 174 at pp. 181-182, and also in *Barcelona Traction (Second Phase) I.C.J. Reports, 1970*, p. 3 at pp. 32-33.

(a) Integral obligations

91. In accordance with article 40 (2) (e) (ii), every State party to a multilateral treaty, or bound by a rule of general international law, is injured by a breach of an "integral obligation".[175] This is defined as a breach which "necessarily affects the enjoyment of the rights or the performance of the obligations of" the other States parties. The commentary says little more than that the paragraph "deals with a situation of fact recognized as a special one also in the Vienna Convention on the Law of Treaties insofar as multilateral treaties are concerned (see, e.g., article 41, para. 1 (*b*) (i), article 58, para. 1 (*b*) (i), and, in a somewhat different context and wording, article 60, para. 2 (*c*))".[176] But of the three provisions of the Vienna Convention mentioned in the commentary,[177] only article 60 (2) (c) actually deals with questions which are cognate to responsibility.[178] Article 60 (2) (c) is concerned with any treaty which is "of such a character that a material breach of its provisions by one party radically changes the position of every party with respect to the further performance of its obligations". This is narrower than draft article 40 (2) (e) (ii). While applying an a priori test of effect upon other States, it applies to the treaty as a whole and not to the particular obligation breached. Probably this difference can be explained by the difference in context. The Vienna Convention is concerned with the treaty instrument as a whole, whereas the draft articles are concerned with particular obligations. Thus there seems to be no difficulty in transposing the notion of integral obligations to the law of State responsibility, and correspondingly no difficulty in treating each State as individually injured by a breach of an integral obligation.

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[175] The notion of "integral" obligations was developed by Fitzmaurice as Special Rapporteur on the law of treaties: see *Yearbook ... 1957*, vol. II, p. 54, and see also K. Sachariew, "State Responsibility for Multilateral Treaty Violations: Identifying the 'Injured State' and its Legal Status" (1988) 35 *NILR* 273 at p. 281.

[176] Commentary to article 40 [5], para. (19), in *supra*, footnote 133, pp. 26-27.

[177] Article 41 (1) (b) is concerned with the modification *inter se* of a multilateral treaty by only some of its parties. Such a modification is permissible if it is not prohibited by the treaty and "does not affect the enjoyment by the other parties of their rights under the treaty or the performance of their obligations". The test of permissibility here depends on whether the particular modification in fact affects the position of the other parties to the convention. It is not an a priori test, and it is not limited to modifications which "necessarily affect" the other parties. Rather it extends to those modifications which in fact affect them in the particular case. There is no requirement that it affect *all* the other parties: a modification which affected some or perhaps any of them would be excluded. Article 58 (1) (b) is concerned with the suspension of operation of a multilateral treaty between only some of its parties: quite properly it applies the same test as does article 41 of the Vienna Convention for modifications *inter se*.

[178] Article 60 provides as follows:

"2. A material breach of a multilateral treaty by one of the parties entitles:

(a) the other parties by unanimous agreement to suspend the operation of the treaty in whole or in part or to terminate it either:

(i) in the relations between themselves and the defaulting State, or

(ii) as between all the parties;

(b) a party specially affected by the breach to invoke it as a ground for suspending the operation of the treaty in whole or in part in the relations between itself and the defaulting State;

(c) any party other than the defaulting State to invoke the breach as a ground for suspending the operation of the treaty in whole or in part with respect to itself if the treaty is of such a character that a material breach of its provisions by one party radically changes the position of every party with respect to the further performance of its obligations under the treaty."

(b) Obligations erga omnes partes

92. In addition, article 40 (2) (f) defines as injured all other States parties to a multilateral treaty "if the right infringed … has been expressly stipulated in that treaty for the protection of the collective interests of the States parties". These may be referred to as obligations *erga omnes partes*. They concern obligations in the performance of which all the States parties are recognized as having a common interest, over and above any individual interest that may exist in a given case. The commentary gives as an example "the concept of a 'common heritage of mankind', as recently accepted in respect of the mineral resources of the seabed and subsoil beyond national jurisdiction".[179] This suggests that the requirement of express stipulation is to be interpreted with some flexibility. Nonetheless, the commentary notes that "in the present stage of development of the international community of States as a whole, the recognition or establishment of a collective interest of States is still limited in application", and it is textually limited in two ways, first to express stipulations, and second to such stipulations in multilateral treaties.[180] As to the first, there is a wide diversity of modern multilateral treaties concerned to vindicate collective interests, and to require an express stipulation seems too narrow. As to the second, the draft articles proceed on the basis that obligations under treaties and under general international law are to be treated as equivalent,[181] and it may well be the case that general international law parallels and reinforces a multilateral treaty provision in the public interest. Moreover, there is no reason to limit the category of "protection of collective interests" to the collective interests of States, narrowly conceived. Human rights treaties are plainly (even if not always explicitly) designed to protect a general common interest. Paragraph 2 (e) (iii) is therefore better regarded as cognate to article 2 (f).[182]

(c) Specially affected States

93. While recognizing the possibility that all States, or a broad group of States, may be legally interested in the performance of an obligation, article 40 (2) conspicuously fails to recognize the case of a State or States "specially affected" by a breach. In this respect it fails to follow the logic of article 60 (2) of the Vienna Convention. It would be odd if a State specially affected by a breach was entitled to suspend the underlying obligation but not to insist on its performance. Indeed the suspension of the obligation may actually be *convenient* so far as the State in breach is concerned. Even if it does not release that State from secondary obligations

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These provisions are subject to a contrary provision in the treaty itself (art. 60 (4)), and do not apply to certain cases such as humanitarian treaties which should be kept in full force irrespective of breaches (art. 60 (5)). The term "specially affected" is not defined, and the commentary to article 60 does not take matters further. See *Yearbook … 1966* vol. II p. 255, para. (7). In the *Namibia Opinion* the Court expressed the view that article 60 was "in most respects" declaratory of existing international law: *I.C.J. Reports, 1971*, p. 16, at p. 47 (para. 94).

179 Commentary to article 40 [5], para. (23), in *supra*, footnote 133, p. 27.

180 Commentary to article 40 [5], para. (24), ibid. This is said, however, not to "exclude the development of customary rules of international law to the same effect": ibid., para. (25).

181 See draft article 16 (as provisionally adopted on second reading, A/CN.4/L.574 and Corr.1-4); Crawford, Second Report, A/CN.4/498, paras. 16-26.

182 As a general matter, human rights obligations are either obligations *erga omnes partes* or obligations *erga omnes*, depending on their universality and significance.

already accrued,[183] it will have the effect of releasing it from any obligation of cessation (so far as relations with the suspending State are concerned), and of any legal consequences of what would otherwise be a continuing wrongful act. Suspension of treaty relations is no substitute for an adequate regime of State responsibility.

Consequences of identifying multiple "injured States"

94. Under article 40, all "injured States" are apparently treated in exactly the same way. Each State injured by an internationally wrongful act is entitled to seek cessation and reparation[184] and to take countermeasures if cessation and reparation are not provided.[185] This may be appropriate where the "subjective" or individual rights of States are concerned. A State whose right has been breached is entitled to protest, to insist on restitution or (even where restitution may be possible) to decide that it would prefer compensation. It may insist on the vindication of its right or decide in the circumstances to overlook it and waive the breach. But the position where the obligation is a multilateral one may well be different. For example, the particular beneficiary of a substantive obligation (e.g., the individual whose right has been violated contrary to a human rights obligation, the people whose right to self-determination has been denied or even the State actually harmed by a breach of an obligation *erga omnes*) may validly prefer compensation to restitution. By what right could others, even with a recognized legal interest in compliance, countermand that preference?

95. Again there is a contrast with article 60 (2) of the Vienna Convention on the Law of Treaties, which is at pains to define the steps that "specially affected" or "integrally affected" States can take against the responsible State. These steps affect only the relations of the affected State vis-à-vis the responsible State, and allow only suspension of treaty relations. More drastic measures require the unanimous agreement of the other States parties.

Conclusion on article 40

96. As the present account shows, those aspects of article 40 which relate to multilateral obligations, including obligations *erga omnes*, have never been thoroughly considered. In particular, the Commission never returned to consider that definition in the light of the consequences dealt with further on in Part Two. In the Special Rapporteur's view, many of the criticisms of article 40, made by members during its drafting, by Governments since its adoption, as well as in the literature, are justified. Article 40 is defective in a number of respects:

- In its premature conversion from the language of obligation (the key concept in Part One) to the language of right;
- In its apparent assumption that all responsibility relations are to be assimilated to classical bilateral right-duty relations (an assumption contradicted by the International Court in the *Barcelona Traction* case), or alternatively in its

183 Cf. Vienna Convention on the Law of Treaties, article 72 (1).

184 See articles 41, 42.

185 See article 47. The only (indirect) qualification is provided by article 48, with its requirement that countermeasures "shall not be out of proportion to the degree of gravity of the internationally wrongful act and the effects thereof on the injured State".

Annex 493

"Draft Articles on Prevention of Transboundary Harm from Hazardous Activities", Report of the Commission to the General Assembly on the work of its fifty-third session, Yearbook of the International Law Commission, A/CN.4/SER.A/2001/Add.1 (Part 2), *International Law Commission,* 10 August 2001, pages 146-148

A/CN.4/SER.A/2001/Add.1 (Part 2)

YEARBOOK OF THE INTERNATIONAL LAW COMMISSION

2001

Volume II
Part Two

Report of the Commission
to the General Assembly
on the work
of its fifty-third session

UNITED NATIONS
New York and Geneva, 2007

NOTE

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A/CN.4/SER.A/2001/Add.1 (Part 2)

UNITED NATIONS PUBLICATION

Sales No. E.04.V.17 (Part 2)
ISBN 978-92-1-133591-0

ISSN 0082-8289

"The International Law Commission,

"Having adopted the draft preamble and draft articles on prevention of transboundary harm from hazardous activities,

"Expresses to the Special Rapporteur, Mr. Pemmaraju Sreenivasa Rao, its deep appreciation and warm congratulations for the outstanding contribution he has made to the preparation of the draft preamble and draft articles through his tireless efforts and devoted work, and for the results achieved in the elaboration of the draft preamble and draft articles on prevention of transboundary harm from hazardous activities."

96. The Commission also expressed its deep appreciation to the previous Special Rapporteurs, Robert Q. Quentin-Baxter and Julio Barboza, for their outstanding contribution to the work on the topic.

E. Draft articles on prevention of transboundary harm from hazardous activities

1. Text of the draft articles

97. The text of the draft preamble and draft articles adopted by the Commission at its fifty-third session is reproduced below.

PREVENTION OF TRANSBOUNDARY HARM FROM HAZARDOUS ACTIVITIES

The States Parties,

Having in mind **Article 13, paragraph 1 (a), of the Charter of the United Nations, which provides that the General Assembly shall initiate studies and make recommendations for the purpose of encouraging the progressive development of international law and its codification,**

Bearing in mind **the principle of permanent sovereignty of States over the natural resources within their territory or otherwise under their jurisdiction or control,**

Bearing also in mind **that the freedom of States to carry on or permit activities in their territory or otherwise under their jurisdiction or control is not unlimited,**

Recalling **the Rio Declaration on Environment and Development of 13 June 1992,**

Recognizing **the importance of promoting international cooperation,**

Have agreed **as follows:**

Article 1. Scope

The present articles apply to activities not prohibited by international law which involve a risk of causing significant transboundary harm through their physical consequences.

Article 2. Use of terms

For the purposes of the present articles:

(*a*) "Risk of causing significant transboundary harm" includes risks taking the form of a high probability of causing significant transboundary harm and a low probability of causing disastrous transboundary harm;

(*b*) "Harm" means harm caused to persons, property or the environment;

(*c*) "Transboundary harm" means harm caused in the territory of or in other places under the jurisdiction or control of a State other than the State of origin, whether or not the States concerned share a common border;

(*d*) "State of origin" means the State in the territory or otherwise under the jurisdiction or control of which the activities referred to in article 1 are planned or are carried out;

(*e*) "State likely to be affected" means the State or States in the territory of which there is the risk of significant transboundary harm or which have jurisdiction or control over any other place where there is such a risk;

(*f*) "States concerned" means the State of origin and the State likely to be affected.

Article 3. Prevention

The State of origin shall take all appropriate measures to prevent significant transboundary harm or at any event to minimize the risk thereof.

Article 4. Cooperation

States concerned shall cooperate in good faith and, as necessary, seek the assistance of one or more competent international organizations in preventing significant transboundary harm or at any event in minimizing the risk thereof.

Article 5. Implementation

States concerned shall take the necessary legislative, administrative or other action including the establishment of suitable monitoring mechanisms to implement the provisions of the present articles.

Article 6. Authorization

1. The State of origin shall require its prior authorization for:

(*a*) any activity within the scope of the present articles carried out in its territory or otherwise under its jurisdiction or control;

(*b*) any major change in an activity referred to in subparagraph (*a*);

(*c*) any plan to change an activity which may transform it into one falling within the scope of the present articles.

2. The requirement of authorization established by a State shall be made applicable in respect of all pre-existing activities within the scope of the present articles. Authorizations already issued by the State for pre-existing activities shall be reviewed in order to comply with the present articles.

3. In case of a failure to conform to the terms of the authorization, the State of origin shall take such actions as appropriate, including where necessary terminating the authorization.

Article 7. Assessment of risk

Any decision in respect of the authorization of an activity within the scope of the present articles shall, in particular, be based on an assessment of the possible transboundary harm caused by that activity, including any environmental impact assessment.

Article 8. Notification and information

1. If the assessment referred to in article 7 indicates a risk of causing significant transboundary harm, the State of origin shall provide the State likely to be affected with timely notification of the risk and the assessment and shall transmit to it the available

technical and all other relevant information on which the assessment is based.

2. The State of origin shall not take any decision on authorization of the activity pending the receipt, within a period not exceeding six months, of the response from the State likely to be affected.

Article 9. Consultations on preventive measures

1. The States concerned shall enter into consultations, at the request of any of them, with a view to achieving acceptable solutions regarding measures to be adopted in order to prevent significant transboundary harm or at any event to minimize the risk thereof. The States concerned shall agree, at the commencement of such consultations, on a reasonable time frame for the consultations.

2. The States concerned shall seek solutions based on an equitable balance of interests in the light of article 10.

3. If the consultations referred to in paragraph 1 fail to produce an agreed solution, the State of origin shall nevertheless take into account the interests of the State likely to be affected in case it decides to authorize the activity to be pursued, without prejudice to the rights of any State likely to be affected.

Article 10. Factors involved in an equitable balance of interests

In order to achieve an equitable balance of interests as referred to in paragraph 2 of article 9, the States concerned shall take into account all relevant factors and circumstances, including:

(*a*) the degree of risk of significant transboundary harm and of the availability of means of preventing such harm, or minimizing the risk thereof or repairing the harm;

(*b*) the importance of the activity, taking into account its overall advantages of a social, economic and technical character for the State of origin in relation to the potential harm for the State likely to be affected;

(*c*) the risk of significant harm to the environment and the availability of means of preventing such harm, or minimizing the risk thereof or restoring the environment;

(*d*) the degree to which the State of origin and, as appropriate, the State likely to be affected are prepared to contribute to the costs of prevention;

(*e*) the economic viability of the activity in relation to the costs of prevention and to the possibility of carrying out the activity elsewhere or by other means or replacing it with an alternative activity;

(*f*) the standards of prevention which the State likely to be affected applies to the same or comparable activities and the standards applied in comparable regional or international practice.

Article 11. Procedures in the absence of notification

1. If a State has reasonable grounds to believe that an activity planned or carried out in the State of origin may involve a risk of causing significant transboundary harm to it, it may request the State of origin to apply the provision of article 8. The request shall be accompanied by a documented explanation setting forth its grounds.

2. In the event that the State of origin nevertheless finds that it is not under an obligation to provide a notification under article 8, it shall so inform the requesting State within a reasonable time, providing a documented explanation setting forth the reasons for such finding. If this finding does not satisfy that State, at its request, the two States shall promptly enter into consultations in the manner indicated in article 9.

3. During the course of the consultations, the State of origin shall, if so requested by the other State, arrange to introduce appropriate and feasible measures to minimize the risk and, where appropriate, to suspend the activity in question for a reasonable period.

Article 12. Exchange of information

While the activity is being carried out, the States concerned shall exchange in a timely manner all available information concerning that activity relevant to preventing significant transboundary harm or at any event minimizing the risk thereof. Such an exchange of information shall continue until such time as the States concerned consider it appropriate even after the activity is terminated.

Article 13. Information to the public

States concerned shall, by such means as are appropriate, provide the public likely to be affected by an activity within the scope of the present articles with relevant information relating to that activity, the risk involved and the harm which might result and ascertain their views.

Article 14. National security and industrial secrets

Data and information vital to the national security of the State of origin or to the protection of industrial secrets or concerning intellectual property may be withheld, but the State of origin shall cooperate in good faith with the State likely to be affected in providing as much information as possible under the circumstances.

Article 15. Non-discrimination

Unless the States concerned have agreed otherwise for the protection of the interests of persons, natural or juridical, who may be or are exposed to the risk of significant transboundary harm as a result of an activity within the scope of the present articles, a State shall not discriminate on the basis of nationality or residence or place where the injury might occur, in granting to such persons, in accordance with its legal system, access to judicial or other procedures to seek protection or other appropriate redress.

Article 16. Emergency preparedness

The State of origin shall develop contingency plans for responding to emergencies, in cooperation, where appropriate, with the State likely to be affected and competent international organizations.

Article 17. Notification of an emergency

The State of origin shall, without delay and by the most expeditious means, at its disposal, notify the State likely to be affected of an emergency concerning an activity within the scope of the present articles and provide it with all relevant and available information.

Article 18. Relationship to other rules of international law

The present articles are without prejudice to any obligation incurred by States under relevant treaties or rules of customary international law.

Article 19. Settlement of disputes

1. Any dispute concerning the interpretation or application of the present articles shall be settled expeditiously through peaceful means of settlement chosen by mutual agreement of the parties to the dispute, including negotiations, mediation, conciliation, arbitration or judicial settlement.

2. Failing an agreement on the means for the peaceful settlement of the dispute within a period of six months, the parties to the

dispute shall, at the request of any of them, have recourse to the establishment of an impartial fact-finding commission.

3. The Fact-finding Commission shall be composed of one member nominated by each party to the dispute and in addition a member not having the nationality of any of the parties to the dispute chosen by the nominated members who shall serve as Chairperson.

4. If more than one State is involved on one side of the dispute and those States do not agree on a common member of the Commission and each of them nominates a member, the other party to the dispute has the right to nominate an equal number of members of the Commission.

5. If the members nominated by the parties to the dispute are unable to agree on a Chairperson within three months of the request for the establishment of the Commission, any party to the dispute may request the Secretary-General of the United Nations to appoint the Chairperson who shall not have the nationality of any of the parties to the dispute. If one of the parties to the dispute fails to nominate a member within three months of the initial request pursuant to paragraph 2, any other party to the dispute may request the Secretary-General of the United Nations to appoint a person who shall not have the nationality of any of the parties to the dispute. The person so appointed shall constitute a single-member Commission.

6. The Commission shall adopt its report by a majority vote, unless it is a single-member Commission, and shall submit that report to the parties to the dispute setting forth its findings and recommendations, which the parties to the dispute shall consider in good faith.

2. Text of the draft articles with commentaries thereto

98. The text of the draft articles adopted by the Commission at its fifty-third session with commentaries thereto is reproduced below.

PREVENTION OF TRANSBOUNDARY HARM FROM HAZARDOUS ACTIVITIES

General commentary

(1) The articles deal with the concept of prevention in the context of authorization and regulation of hazardous activities which pose a significant risk of transboundary harm. Prevention in this sense, as a procedure or as a duty, deals with the phase prior to the situation where significant harm or damage might actually occur, requiring States concerned to invoke remedial or compensatory measures, which often involve issues concerning liability.

(2) The concept of prevention has assumed great significance and topicality. The emphasis upon the duty to prevent as opposed to the obligation to repair, remedy or compensate has several important aspects. Prevention should be a preferred policy because compensation in case of harm often cannot restore the situation prevailing prior to the event or accident. Discharge of the duty of prevention or due diligence is all the more required as knowledge regarding the operation of hazardous activities, materials used and the process of managing them and the risks involved is steadily growing. From a legal point of view, the enhanced ability to trace the chain of causation, i.e. the physical link between the cause (activity) and the effect (harm), and even the several intermediate links in such a chain of causation, makes it also imperative for operators of hazardous activities to take all steps necessary to prevent harm. In any event, prevention as a policy is better than cure.

(3) Prevention of transboundary harm arising from hazardous activities is an objective well emphasized by principle 2 of the Rio Declaration on Environment and Development (Rio Declaration)[857] and confirmed by ICJ in its advisory opinion on the *Legality of the Threat or Use of Nuclear Weapons*[858] as now forming part of the corpus of international law.

(4) The issue of prevention, therefore, has rightly been stressed by the Experts Group on Environmental Law of the World Commission on Environment and Development (Brundtland Commission). Article 10 recommended by the Group in respect of transboundary natural resources and environmental interferences thus reads: "States shall, without prejudice to the principles laid down in articles 11 and 12, prevent or abate any transboundary environmental interference or a significant risk thereof which causes substantial harm—i.e. harm which is not minor or insignificant."[859] It must be further noted that the well-established principle of prevention was highlighted in the arbitral award in the *Trail Smelter* case[860] and was reiterated not only in principle 21 of the Declaration of the United Nations Conference on the Human Environment (Stockholm Declaration)[861] and principle 2 of the Rio Declaration, but also in General Assembly resolution 2995 (XXVII) of 15 December 1972 on cooperation between States in the field of the environment. This principle is also reflected in principle 3 of the Principles of conduct in the field of the environment for the guidance of States in the conservation and harmonious utilization of natural resources shared by two or more States, adopted by the Governing Council of UNEP in 1978, which provided that States must:

> avoid to the maximum extent possible and ... reduce to the minimum extent possible the adverse environmental effects beyond its jurisdiction of the utilization of a shared natural resource so as to protect the environment, in particular when such utilization might:
>
> (*a*) cause damage to the environment which could have repercussions on the utilization of the resource by another sharing State;
>
> (*b*) threaten the conservation of a shared renewable resource;
>
> (*c*) endanger the health of the population of another State.[862]

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[857] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3–14 June 1992* (United Nations publication, Sales No. E.93.I.8 and corrigenda), vol. I: *Resolutions adopted by the Conference*, resolution 1, annex I.

[858] *Legality of the Threat or Use of Nuclear Weapons* (see footnote 54 above), pp. 241–242, para. 29; see also A/51/218, annex.

[859] *Environmental Protection and Sustainable Development: Legal Principles and Recommendations* (London, Graham and Trotman/Martinus Nijhoff, 1987), p. 75, adopted by the Experts Group. It was also noted that the duty not to cause substantial harm could be deduced from the non-treaty-based practice of States, and from the statements made by States individually and/or collectively. See J. G. Lammers, *Pollution of International Watercourses* (The Hague, Martinus Nijhoff, 1984), pp. 346–347 and 374–376.

[860] *Trail Smelter* (see footnote 253 above), pp. 1905 et seq.

[861] *Report of the United Nations Conference on the Human Environment, Stockholm, 5–16 June 1972* (United Nations publication, Sales No. E.73.II.A.14 and corrigendum), part one, chap. I.

[862] UNEP, *Environmental Law: Guidelines and Principles*, No. 2, *Shared Natural Resources* (Nairobi, 1978), p. 2. The principles are re-

Annex 494

"Draft Articles on Responsibility of States for Internationally Wrongful Acts", Report of the Commission to the General Assembly on the work of its fifty-third session, Yearbook of the International Law Commission, A/CN.4/SER.A/2001/Add.1 (Part 2), *International Law Commission,* 10 August 2001

A/CN.4/SER.A/2001/Add.1 (Part 2)

YEARBOOK OF THE INTERNATIONAL LAW COMMISSION

2001

Volume II
Part Two

Report of the Commission
to the General Assembly
on the work
of its fifty-third session

UNITED NATIONS
New York and Geneva, 2007

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

References to the *Yearbook of the International Law Commission* are abbreviated to *Yearbook* …, followed by the year (for example, *Yearbook … 2000*).

The *Yearbook* for each session of the International Law Commission comprises two volumes:

Volume I: summary records of the meetings of the session;

Volume II (Part One): reports of special rapporteurs and other documents considered during the session;

Volume II (Part Two): report of the Commission to the General Assembly.

All references to these works and quotations from them relate to the final printed texts of the volumes of the *Yearbook* issued as United Nations publications.

A/CN.4/SER.A/2001/Add.1 (Part 2)

UNITED NATIONS PUBLICATION

Sales No. E.04.V.17 (Part 2)
ISBN 978-92-1-133591-0

ISSN 0082-8289

E. Draft articles on responsibility of States for internationally wrongful acts

1. Text of the draft articles

76. The text of the draft articles adopted by the Commission at its fifty-third session is reproduced below.

RESPONSIBILITY OF STATES FOR INTERNATIONALLY WRONGFUL ACTS

Part One

THE INTERNATIONALLY WRONGFUL ACT OF A STATE

Chapter I

GENERAL PRINCIPLES

Article 1. Responsibility of a State for its internationally wrongful acts

Every internationally wrongful act of a State entails the international responsibility of that State.

Article 2. Elements of an internationally wrongful act of a State

There is an internationally wrongful act of a State when conduct consisting of an action or omission:

(*a*) is attributable to the State under international law; and

(*b*) constitutes a breach of an international obligation of the State.

Article 3. Characterization of an act of a State as internationally wrongful

The characterization of an act of a State as internationally wrongful is governed by international law. Such characterization is not affected by the characterization of the same act as lawful by internal law.

Chapter II

ATTRIBUTION OF CONDUCT TO A STATE

Article 4. Conduct of organs of a State

1. The conduct of any State organ shall be considered an act of that State under international law, whether the organ exercises legislative, executive, judicial or any other functions, whatever position it holds in the organization of the State, and whatever its character as an organ of the central Government or of a territorial unit of the State.

2. An organ includes any person or entity which has that status in accordance with the internal law of the State.

Article 5. Conduct of persons or entities exercising elements of governmental authority

The conduct of a person or entity which is not an organ of the State under article 4 but which is empowered by the law of that State to exercise elements of the governmental authority shall be considered an act of the State under international law, provided the person or entity is acting in that capacity in the particular instance.

Article 6. Conduct of organs placed at the disposal of a State by another State

The conduct of an organ placed at the disposal of a State by another State shall be considered an act of the former State under international law if the organ is acting in the exercise of elements of the governmental authority of the State at whose disposal it is placed.

Article 7. Excess of authority or contravention of instructions

The conduct of an organ of a State or of a person or entity empowered to exercise elements of the governmental authority shall be considered an act of the State under international law if the organ, person or entity acts in that capacity, even if it exceeds its authority or contravenes instructions.

Article 8. Conduct directed or controlled by a State

The conduct of a person or group of persons shall be considered an act of a State under international law if the person or group of persons is in fact acting on the instructions of, or under the direction or control of, that State in carrying out the conduct.

Article 9. Conduct carried out in the absence or default of the official authorities

The conduct of a person or group of persons shall be considered an act of a State under international law if the person or group of persons is in fact exercising elements of the governmental authority in the absence or default of the official authorities and in circumstances such as to call for the exercise of those elements of authority.

Article 10. Conduct of an insurrectional or other movement

1. The conduct of an insurrectional movement which becomes the new Government of a State shall be considered an act of that State under international law.

2. The conduct of a movement, insurrectional or other, which succeeds in establishing a new State in part of the territory of a pre-existing State or in a territory under its administration shall be considered an act of the new State under international law.

3. This article is without prejudice to the attribution to a State of any conduct, however related to that of the movement concerned, which is to be considered an act of that State by virtue of articles 4 to 9.

Article 11. Conduct acknowledged and adopted by a State as its own

Conduct which is not attributable to a State under the preceding articles shall nevertheless be considered an act of that State under international law if and to the extent that the State acknowledges and adopts the conduct in question as its own.

Chapter III

BREACH OF AN INTERNATIONAL OBLIGATION

Article 12. Existence of a breach of an international obligation

There is a breach of an international obligation by a State when an act of that State is not in conformity with what is required of it by that obligation, regardless of its origin or character.

Article 13. International obligation in force for a State

An act of a State does not constitute a breach of an international obligation unless the State is bound by the obligation in question at the time the act occurs.

Article 14. Extension in time of the breach of an international obligation

1. The breach of an international obligation by an act of a State not having a continuing character occurs at the moment when the act is performed, even if its effects continue.

2. The breach of an international obligation by an act of a State having a continuing character extends over the entire period during which the act continues and remains not in conformity with the international obligation.

3. The breach of an international obligation requiring a State to prevent a given event occurs when the event occurs and extends over the entire period during which the event continues and remains not in conformity with that obligation.

Article 15. Breach consisting of a composite act

1. The breach of an international obligation by a State through a series of actions or omissions defined in aggregate as wrongful occurs when the action or omission occurs which, taken with the other actions or omissions, is sufficient to constitute the wrongful act.

2. In such a case, the breach extends over the entire period starting with the first of the actions or omissions of the series and lasts for as long as these actions or omissions are repeated and remain not in conformity with the international obligation.

CHAPTER IV

RESPONSIBILITY OF A STATE IN CONNECTION WITH THE ACT OF ANOTHER STATE

Article 16. Aid or assistance in the commission of an internationally wrongful act

A State which aids or assists another State in the commission of an internationally wrongful act by the latter is internationally responsible for doing so if:

(*a*) that State does so with knowledge of the circumstances of the internationally wrongful act; and

(*b*) the act would be internationally wrongful if committed by that State.

Article 17. Direction and control exercised over the commission of an internationally wrongful act

A State which directs and controls another State in the commission of an internationally wrongful act by the latter is internationally responsible for that act if:

(*a*) that State does so with knowledge of the circumstances of the internationally wrongful act; and

(*b*) the act would be internationally wrongful if committed by that State.

Article 18. Coercion of another State

A State which coerces another State to commit an act is internationally responsible for that act if:

(*a*) the act would, but for the coercion, be an internationally wrongful act of the coerced State; and

(*b*) the coercing State does so with knowledge of the circumstances of the act.

Article 19. Effect of this chapter

This chapter is without prejudice to the international responsibility, under other provisions of these articles, of the State which commits the act in question, or of any other State.

CHAPTER V

CIRCUMSTANCES PRECLUDING WRONGFULNESS

Article 20. Consent

Valid consent by a State to the commission of a given act by another State precludes the wrongfulness of that act in relation to the former State to the extent that the act remains within the limits of that consent.

Article 21. Self-defence

The wrongfulness of an act of a State is precluded if the act constitutes a lawful measure of self-defence taken in conformity with the Charter of the United Nations.

Article 22. Countermeasures in respect of an internationally wrongful act

The wrongfulness of an act of a State not in conformity with an international obligation towards another State is precluded if and to the extent that the act constitutes a countermeasure taken against the latter State in accordance with chapter II of Part Three.

Article 23. **Force majeure**

1. The wrongfulness of an act of a State not in conformity with an international obligation of that State is precluded if the act is due to *force majeure*, that is the occurrence of an irresistible force or of an unforeseen event, beyond the control of the State, making it materially impossible in the circumstances to perform the obligation.

2. Paragraph 1 does not apply if:

(*a*) the situation of *force majeure* is due, either alone or in combination with other factors, to the conduct of the State invoking it; or

(*b*) the State has assumed the risk of that situation occurring.

Article 24. Distress

1. The wrongfulness of an act of a State not in conformity with an international obligation of that State is precluded if the author of the act in question has no other reasonable way, in a situation of distress, of saving the author's life or the lives of other persons entrusted to the author's care.

2. Paragraph 1 does not apply if:

(*a*) the situation of distress is due, either alone or in combination with other factors, to the conduct of the State invoking it; or

(*b*) the act in question is likely to create a comparable or greater peril.

Article 25. Necessity

1. Necessity may not be invoked by a State as a ground for precluding the wrongfulness of an act not in conformity with an international obligation of that State unless the act:

(*a*) is the only way for the State to safeguard an essential interest against a grave and imminent peril; and

(*b*) does not seriously impair an essential interest of the State or States towards which the obligation exists, or of the international community as a whole.

2. In any case, necessity may not be invoked by a State as a ground for precluding wrongfulness if:

(*a*) the international obligation in question excludes the possibility of invoking necessity; or

(*b*) the State has contributed to the situation of necessity.

Article 26. Compliance with peremptory norms

Nothing in this chapter precludes the wrongfulness of any act of a State which is not in conformity with an obligation arising under a peremptory norm of general international law.

Article 27. Consequences of invoking a circumstance precluding wrongfulness

The invocation of a circumstance precluding wrongfulness in accordance with this chapter is without prejudice to:

(*a*) compliance with the obligation in question, if and to the extent that the circumstance precluding wrongfulness no longer exists;

(*b*) the question of compensation for any material loss caused by the act in question.

PART TWO

CONTENT OF THE INTERNATIONAL RESPONSIBILITY OF A STATE

CHAPTER I

GENERAL PRINCIPLES

Article 28. Legal consequences of an internationally wrongful act

The international responsibility of a State which is entailed by an internationally wrongful act in accordance with the provisions of Part One involves legal consequences as set out in this Part.

Article 29. Continued duty of performance

The legal consequences of an internationally wrongful act under this Part do not affect the continued duty of the responsible State to perform the obligation breached.

Article 30. Cessation and non-repetition

The State responsible for the internationally wrongful act is under an obligation:

(*a*) to cease that act, if it is continuing;

(*b*) to offer appropriate assurances and guarantees of non-repetition, if circumstances so require.

Article 31. Reparation

1. The responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act.

2. Injury includes any damage, whether material or moral, caused by the internationally wrongful act of a State.

Article 32. Irrelevance of internal law

The responsible State may not rely on the provisions of its internal law as justification for failure to comply with its obligations under this Part.

Article 33. Scope of international obligations set out in this Part

1. The obligations of the responsible State set out in this Part may be owed to another State, to several States, or to the international community as a whole, depending in particular on the character and content of the international obligation and on the circumstances of the breach.

2. This Part is without prejudice to any right, arising from the international responsibility of a State, which may accrue directly to any person or entity other than a State.

CHAPTER II

REPARATION FOR INJURY

Article 34. Forms of reparation

Full reparation for the injury caused by the internationally wrongful act shall take the form of restitution, compensation and satisfaction, either singly or in combination, in accordance with the provisions of this chapter.

Article 35. Restitution

A State responsible for an internationally wrongful act is under an obligation to make restitution, that is, to re-establish the situation which existed before the wrongful act was committed, provided and to the extent that restitution:

(*a*) is not materially impossible;

(*b*) does not involve a burden out of all proportion to the benefit deriving from restitution instead of compensation.

Article 36. Compensation

1. The State responsible for an internationally wrongful act is under an obligation to compensate for the damage caused thereby, insofar as such damage is not made good by restitution.

2. The compensation shall cover any financially assessable damage including loss of profits insofar as it is established.

Article 37. Satisfaction

1. The State responsible for an internationally wrongful act is under an obligation to give satisfaction for the injury caused by that act insofar as it cannot be made good by restitution or compensation.

2. Satisfaction may consist in an acknowledgement of the breach, an expression of regret, a formal apology or another appropriate modality.

3. Satisfaction shall not be out of proportion to the injury and may not take a form humiliating to the responsible State.

Article 38. Interest

1. Interest on any principal sum due under this chapter shall be payable when necessary in order to ensure full reparation. The interest rate and mode of calculation shall be set so as to achieve that result.

2. Interest runs from the date when the principal sum should have been paid until the date the obligation to pay is fulfilled.

Article 39. Contribution to the injury

In the determination of reparation, account shall be taken of the contribution to the injury by wilful or negligent action or omission of the injured State or any person or entity in relation to whom reparation is sought.

Chapter III

SERIOUS BREACHES OF OBLIGATIONS UNDER PEREMPTORY NORMS OF GENERAL INTERNATIONAL LAW

Article 40. Application of this chapter

1. This chapter applies to the international responsibility which is entailed by a serious breach by a State of an obligation arising under a peremptory norm of general international law.

2. A breach of such an obligation is serious if it involves a gross or systematic failure by the responsible State to fulfil the obligation.

Article 41. Particular consequences of a serious breach of an obligation under this chapter

1. States shall cooperate to bring to an end through lawful means any serious breach within the meaning of article 40.

2. No State shall recognize as lawful a situation created by a serious breach within the meaning of article 40, nor render aid or assistance in maintaining that situation.

3. This article is without prejudice to the other consequences referred to in this Part and to such further consequences that a breach to which this chapter applies may entail under international law.

Part Three

THE IMPLEMENTATION OF THE INTERNATIONAL RESPONSIBILITY OF A STATE

Chapter I

INVOCATION OF THE RESPONSIBILITY OF A STATE

Article 42. Invocation of responsibility by an injured State

A State is entitled as an injured State to invoke the responsibility of another State if the obligation breached is owed to:

(*a*) that State individually; or

(*b*) a group of States including that State, or the international community as a whole, and the breach of the obligation:

(i) specially affects that State; or

(ii) is of such a character as radically to change the position of all the other States to which the obligation is owed with respect to the further performance of the obligation.

Article 43. Notice of claim by an injured State

1. An injured State which invokes the responsibility of another State shall give notice of its claim to that State.

2. The injured State may specify in particular:

(*a*) the conduct that the responsible State should take in order to cease the wrongful act, if it is continuing;

(*b*) what form reparation should take in accordance with the provisions of Part Two.

Article 44. Admissibility of claims

The responsibility of a State may not be invoked if:

(*a*) the claim is not brought in accordance with any applicable rule relating to the nationality of claims;

(*b*) the claim is one to which the rule of exhaustion of local remedies applies and any available and effective local remedy has not been exhausted.

Article 45. Loss of the right to invoke responsibility

The responsibility of a State may not be invoked if:

(*a*) the injured State has validly waived the claim;

(*b*) the injured State is to be considered as having, by reason of its conduct, validly acquiesced in the lapse of the claim.

Article 46. Plurality of injured States

Where several States are injured by the same internationally wrongful act, each injured State may separately invoke the responsibility of the State which has committed the internationally wrongful act.

Article 47. Plurality of responsible States

1. Where several States are responsible for the same internationally wrongful act, the responsibility of each State may be invoked in relation to that act.

2. Paragraph 1:

(*a*) does not permit any injured State to recover, by way of compensation, more than the damage it has suffered;

(*b*) is without prejudice to any right of recourse against the other responsible States.

Article 48. Invocation of responsibility by a State other than an injured State

1. Any State other than an injured State is entitled to invoke the responsibility of another State in accordance with paragraph 2 if:

(*a*) the obligation breached is owed to a group of States including that State, and is established for the protection of a collective interest of the group; or

(*b*) the obligation breached is owed to the international community as a whole.

2. Any State entitled to invoke responsibility under paragraph 1 may claim from the responsible State:

(*a*) cessation of the internationally wrongful act, and assurances and guarantees of non-repetition in accordance with article 30; and

(*b*) performance of the obligation of reparation in accordance with the preceding articles, in the interest of the injured State or of the beneficiaries of the obligation breached.

3. The requirements for the invocation of responsibility by an injured State under articles 43, 44 and 45 apply to an invocation of responsibility by a State entitled to do so under paragraph 1.

CHAPTER II

COUNTERMEASURES

Article 49. Object and limits of countermeasures

1. An injured State may only take countermeasures against a State which is responsible for an internationally wrongful act in order to induce that State to comply with its obligations under Part Two.

2. Countermeasures are limited to the non-performance for the time being of international obligations of the State taking the measures towards the responsible State.

3. Countermeasures shall, as far as possible, be taken in such a way as to permit the resumption of performance of the obligations in question.

Article 50. Obligations not affected by countermeasures

1. Countermeasures shall not affect:

(*a*) the obligation to refrain from the threat or use of force as embodied in the Charter of the United Nations;

(*b*) obligations for the protection of fundamental human rights;

(*c*) obligations of a humanitarian character prohibiting reprisals;

(*d*) other obligations under peremptory norms of general international law.

2. A State taking countermeasures is not relieved from fulfilling its obligations:

(*a*) under any dispute settlement procedure applicable between it and the responsible State;

(*b*) to respect the inviolability of diplomatic or consular agents, premises, archives and documents.

Article 51. Proportionality

Countermeasures must be commensurate with the injury suffered, taking into account the gravity of the internationally wrongful act and the rights in question.

Article 52. Conditions relating to resort to countermeasures

1. Before taking countermeasures, an injured State shall:

(*a*) call upon the responsible State, in accordance with article 43, to fulfil its obligations under Part Two;

(*b*) notify the responsible State of any decision to take countermeasures and offer to negotiate with that State.

2. Notwithstanding paragraph 1 (*b*), the injured State may take such urgent countermeasures as are necessary to preserve its rights.

3. Countermeasures may not be taken, and if already taken must be suspended without undue delay if:

(*a*) the internationally wrongful act has ceased; and

(*b*) the dispute is pending before a court or tribunal which has the authority to make decisions binding on the parties.

4. Paragraph 3 does not apply if the responsible State fails to implement the dispute settlement procedures in good faith.

Article 53. Termination of countermeasures

Countermeasures shall be terminated as soon as the responsible State has complied with its obligations under Part Two in relation to the internationally wrongful act.

Article 54. Measures taken by States other than an injured State

This chapter does not prejudice the right of any State, entitled under article 48, paragraph 1, to invoke the responsibility of another State, to take lawful measures against that State to ensure cessation of the breach and reparation in the interest of the injured State or of the beneficiaries of the obligation breached.

PART FOUR

GENERAL PROVISIONS

Article 55. **Lex specialis**

These articles do not apply where and to the extent that the conditions for the existence of an internationally wrongful act or the content or implementation of the international responsibility of a State are governed by special rules of international law.

Article 56. Questions of State responsibility not regulated by these articles

The applicable rules of international law continue to govern questions concerning the responsibility of a State for an internationally wrongful act to the extent that they are not regulated by these articles.

Article 57. Responsibility of an international organization

These articles are without prejudice to any question of the responsibility under international law of an international organization, or of any State for the conduct of an international organization.

Article 58. Individual responsibility

These articles are without prejudice to any question of the individual responsibility under international law of any person acting on behalf of a State.

Article 59. Charter of the United Nations

These articles are without prejudice to the Charter of the United Nations.

2. TEXT OF THE DRAFT ARTICLES WITH COMMENTARIES THERETO

77. The text of the draft articles with commentaries thereto adopted by the Commission at its fifty-third session is reproduced below:

Annex 495

"Draft Articles on Responsibility of States for Internationally Wrongful Acts with commentaries", Report of the Commission to the General Assembly on the work of its fifty-third session, Yearbook of the International Law Commission, A/CN.4/SER.A/2001/Add.1 (Part 2), *International Law Commission,* 10 August 2001, pages 34-36, 42-43, 126-128

A/CN.4/SER.A/2001/Add.1 (Part 2)

YEARBOOK OF THE INTERNATIONAL LAW COMMISSION

2001

Volume II
Part Two

Report of the Commission
to the General Assembly
on the work
of its fifty-third session

UNITED NATIONS
New York and Geneva, 2007

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

References to the *Yearbook of the International Law Commission* are abbreviated to *Yearbook* …, followed by the year (for example, *Yearbook … 2000*).

The *Yearbook* for each session of the International Law Commission comprises two volumes:

Volume I: summary records of the meetings of the session;

Volume II (Part One): reports of special rapporteurs and other documents considered during the session;

Volume II (Part Two): report of the Commission to the General Assembly.

All references to these works and quotations from them relate to the final printed texts of the volumes of the *Yearbook* issued as United Nations publications.

A/CN.4/SER.A/2001/Add.1 (Part 2)

UNITED NATIONS PUBLICATION

Sales No. E.04.V.17 (Part 2)
ISBN 978-92-1-133591-0

ISSN 0082-8289

conduct may be attributable to several States at the same time. Under chapter IV, one State may be responsible for the internationally wrongful act of another, for example if the act was carried out under its direction and control. Nonetheless the basic principle of international law is that each State is responsible for its own conduct in respect of its own international obligations.

(7) The articles deal only with the responsibility of States. Of course, as ICJ affirmed in the *Reparation for Injuries* case, the United Nations "is a subject of international law and capable of possessing international rights and duties … it has capacity to maintain its rights by bringing international claims".[55] The Court has also drawn attention to the responsibility of the United Nations for the conduct of its organs or agents.[56] It may be that the notion of responsibility for wrongful conduct is a basic element in the possession of international legal personality. Nonetheless, special considerations apply to the responsibility of other international legal persons, and these are not covered in the articles.[57]

(8) As to terminology, the French term *fait internationalement illicite* is preferable to *délit* or other similar expressions which may have a special meaning in internal law. For the same reason, it is best to avoid, in English, such terms as "tort", "delict" or "delinquency", or in Spanish the term *delito*. The French term *fait internationalement illicite* is better than *acte internationalement illicite*, since wrongfulness often results from omissions which are hardly indicated by the term *acte*. Moreover, the latter term appears to imply that the legal consequences are intended by its author. For the same reasons, the term *hecho internacionalmente ilícito* is adopted in the Spanish text. In the English text, it is necessary to maintain the expression "internationally wrongful act", since the French *fait* has no exact equivalent; nonetheless, the term "act" is intended to encompass omissions, and this is made clear in article 2.

Article 2. Elements of an internationally wrongful act of a State

There is an internationally wrongful act of a State when conduct consisting of an action or omission:

(*a*) is attributable to the State under international law; and

(*b*) constitutes a breach of an international obligation of the State.

Commentary

(1) Article 1 states the basic principle that every internationally wrongful act of a State entails its international responsibility. Article 2 specifies the conditions required to establish the existence of an internationally wrongful act of the State, i.e. the constituent elements of such an act. Two elements are identified. First, the conduct in question must be attributable to the State under international law. Secondly, for responsibility to attach to the act of the State, the conduct must constitute a breach of an international legal obligation in force for that State at that time.

(2) These two elements were specified, for example, by PCIJ in the *Phosphates in Morocco* case. The Court explicitly linked the creation of international responsibility with the existence of an "act being attributable to the State and described as contrary to the treaty right[s] of another State".[58] ICJ has also referred to the two elements on several occasions. In the *United States Diplomatic and Consular Staff in Tehran* case, it pointed out that, in order to establish the responsibility of the Islamic Republic of Iran:

> [f]irst, it must determine how far, legally, the acts in question may be regarded as imputable to the Iranian State. Secondly, it must consider their compatibility or incompatibility with the obligations of Iran under treaties in force or under any other rules of international law that may be applicable.[59]

Similarly in the *Dickson Car Wheel Company* case, the Mexico-United States General Claims Commission noted that the condition required for a State to incur international responsibility is "that an unlawful international act be imputed to it, that is, that there exist a violation of a duty imposed by an international juridical standard".[60]

(3) The element of attribution has sometimes been described as "subjective" and the element of breach as "objective", but the articles avoid such terminology.[61] Whether there has been a breach of a rule may depend on the intention or knowledge of relevant State organs or agents and in that sense may be "subjective". For example, article II of the Convention on the Prevention and Punishment of the Crime of Genocide states that: "In the present Convention, genocide means any of the following acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group, as such …" In other cases, the standard for breach of an obligation may be "objective", in the sense that the advertence or otherwise of relevant State organs or agents may be irrelevant. Whether responsibility is "objective" or "subjective" in this sense depends on the circumstances, including the content of the primary obligation in question. The articles lay down no general rule in that regard. The same is true of other standards, whether they involve some degree of fault, culpability, negligence or want of due diligence. Such standards vary from one context to another for reasons which essentially relate to the object and purpose of the treaty provision or other rule giving rise to the primary obligation. Nor do the articles lay down any presumption in this regard as between the different

[55] *Reparation for Injuries* (see footnote 38 above), p. 179.

[56] *Difference Relating to Immunity from Legal Process of a Special Rapporteur of the Commission on Human Rights, Advisory Opinion, I.C.J. Reports 1999*, p. 62, at pp. 88–89, para. 66.

[57] For the position of international organizations, see article 57 and commentary.

[58] See footnote 34 above.

[59] *United States Diplomatic and Consular Staff in Tehran, Judgment, I.C.J. Reports 1980*, p. 3, at p. 29, para. 56. Cf. page 41, para. 90. See also *Military and Paramilitary Activities in and against Nicaragua* (footnote 36 above), pp. 117–118, para. 226; and *Gabčíkovo-Nagymaros Project* (footnote 27 above), p. 54, para. 78.

[60] See footnote 42 above.

[61] Cf. *Yearbook ... 1973*, vol. II, p. 179, document A/9010/Rev.1, paragraph (1) of the commentary to article 3.

possible standards. Establishing these is a matter for the interpretation and application of the primary rules engaged in the given case.

(4) Conduct attributable to the State can consist of actions or omissions. Cases in which the international responsibility of a State has been invoked on the basis of an omission are at least as numerous as those based on positive acts, and no difference in principle exists between the two. Moreover, it may be difficult to isolate an "omission" from the surrounding circumstances which are relevant to the determination of responsibility. For example, in the *Corfu Channel* case, ICJ held that it was a sufficient basis for Albanian responsibility that it knew, or must have known, of the presence of the mines in its territorial waters and did nothing to warn third States of their presence.[62] In the *United States Diplomatic and Consular Staff in Tehran* case, the Court concluded that the responsibility of the Islamic Republic of Iran was entailed by the "inaction" of its authorities which "failed to take appropriate steps", in circumstances where such steps were evidently called for.[63] In other cases it may be the combination of an action and an omission which is the basis for responsibility.[64]

(5) For particular conduct to be characterized as an internationally wrongful act, it must first be attributable to the State. The State is a real organized entity, a legal person with full authority to act under international law. But to recognize this is not to deny the elementary fact that the State cannot act of itself. An "act of the State" must involve some action or omission by a human being or group: "States can act only by and through their agents and representatives."[65] The question is which persons should be considered as acting on behalf of the State, i.e. what constitutes an "act of the State" for the purposes of State responsibility.

(6) In speaking of attribution to the State what is meant is the State as a subject of international law. Under many legal systems, the State organs consist of different legal persons (ministries or other legal entities), which are regarded as having distinct rights and obligations for which they alone can be sued and are responsible. For the purposes of the international law of State responsibility the position is different. The State is treated as a unity, consistent with its recognition as a single legal person in international law. In this as in other respects the attribution of conduct to the State is necessarily a normative operation. What is crucial is that a given event is sufficiently connected to conduct (whether an act or omission) which is attributable to the State under one or other of the rules set out in chapter II.

(7) The second condition for the existence of an internationally wrongful act of the State is that the conduct attributable to the State should constitute a breach of an international obligation of that State. The terminology of breach of an international obligation of the State is long established and is used to cover both treaty and non-treaty obligations. In its judgment on jurisdiction in the *Factory at Chorzów* case, PCIJ used the words "breach of an engagement".[66] It employed the same expression in its subsequent judgment on the merits.[67] ICJ referred explicitly to these words in the *Reparation for Injuries* case.[68] The arbitral tribunal in the *"Rainbow Warrior"* affair referred to "any violation by a State of any obligation".[69] In practice, terms such as "non-execution of international obligations", "acts incompatible with international obligations", "violation of an international obligation" or "breach of an engagement" are also used.[70] All these formulations have essentially the same meaning. The phrase preferred in the articles is "breach of an international obligation" corresponding as it does to the language of Article 36, paragraph 2 (*c*), of the ICJ Statute.

(8) In international law the idea of breach of an obligation has often been equated with conduct contrary to the rights of others. PCIJ spoke of an act "contrary to the treaty right[s] of another State" in its judgment in the *Phosphates in Morocco* case.[71] That case concerned a limited multilateral treaty which dealt with the mutual rights and duties of the parties, but some have considered the correlation of obligations and rights as a general feature of international law: there are no international obligations of a subject of international law which are not matched by an international right of another subject or subjects, or even of the totality of the other subjects (the international community as a whole). But different incidents may attach to a right which is held in common by all other subjects of international law, as compared with a specific right of a given State or States. Different States may be beneficiaries of an obligation in different ways, or may have different interests in respect of its performance. Multilateral obligations may thus differ from bilateral ones, in view of the diversity of legal rules and institutions and the wide variety of interests sought to be protected by them. But whether any obligation has been breached still raises the two basic questions identified in article 2, and this is so whatever the character or provenance of the obligation breached. It is a separate question who may invoke the responsibility arising from the breach of an obligation: this question is dealt with in Part Three.[72]

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[62] *Corfu Channel, Merits* (see footnote 35 above), pp. 22–23.

[63] *United States Diplomatic and Consular Staff in Tehran* (see footnote 59 above), pp. 31–32, paras. 63 and 67. See also *Velásquez Rodríguez* v. *Honduras* case, Inter-American Court of Human Rights, Series C, No. 4, para. 170 (1988): "under international law a State is responsible for the acts of its agents undertaken in their official capacity and for their omissions"; and *Affaire relative à l'acquisition de la nationalité polonaise*, UNRIAA, vol. I (Sales No. 1948.V.2), p. 401, at p. 425 (1924).

[64] For example, under article 4 of the Convention relative to the Laying of Automatic Submarine Contact Mines (Hague Convention VIII of 18 October 1907), a neutral Power which lays mines off its coasts but omits to give the required notice to other States parties would be responsible accordingly.

[65] *German Settlers in Poland, Advisory Opinion, 1923, P.C.I.J., Series B, No. 6*, p. 22.

[66] *Factory at Chorzów, Jurisdiction* (see footnote 34 above).

[67] *Factory at Chorzów, Merits* (*ibid.*).

[68] *Reparation for Injuries* (see footnote 38 above), p. 184.

[69] *"Rainbow Warrior"* (see footnote 46 above), p. 251, para. 75.

[70] At the Conference for the Codification of International Law, held at The Hague in 1930, the term "any failure ... to carry out the international obligations of the State" was adopted (see *Yearbook ... 1956*, vol. II, p. 225, document A/CN.4/96, annex 3, article 1).

[71] See footnote 34 above.

[72] See also article 33, paragraph 2, and commentary.

(9) Thus there is no exception to the principle stated in article 2 that there are two necessary conditions for an internationally wrongful act—conduct attributable to the State under international law and the breach by that conduct of an international obligation of the State. The question is whether those two necessary conditions are also sufficient. It is sometimes said that international responsibility is not engaged by conduct of a State in disregard of its obligations unless some further element exists, in particular, "damage" to another State. But whether such elements are required depends on the content of the primary obligation, and there is no general rule in this respect. For example, the obligation under a treaty to enact a uniform law is breached by the failure to enact the law, and it is not necessary for another State party to point to any specific damage it has suffered by reason of that failure. Whether a particular obligation is breached forthwith upon a failure to act on the part of the responsible State, or whether some further event must occur, depends on the content and interpretation of the primary obligation and cannot be determined in the abstract.[73]

(10) A related question is whether fault constitutes a necessary element of the internationally wrongful act of a State. This is certainly not the case if by "fault" one understands the existence, for example, of an intention to harm. In the absence of any specific requirement of a mental element in terms of the primary obligation, it is only the act of a State that matters, independently of any intention.

(11) Article 2 introduces and places in the necessary legal context the questions dealt with in subsequent chapters of Part One. Subparagraph (*a*)—which states that conduct attributable to the State under international law is necessary for there to be an internationally wrongful act—corresponds to chapter II, while chapter IV deals with the specific cases where one State is responsible for the internationally wrongful act of another State. Subparagraph (*b*)—which states that such conduct must constitute a breach of an international obligation—corresponds to the general principles stated in chapter III, while chapter V deals with cases where the wrongfulness of conduct, which would otherwise be a breach of an obligation, is precluded.

(12) In subparagraph (*a*), the term "attribution" is used to denote the operation of attaching a given action or omission to a State. In international practice and judicial decisions, the term "imputation" is also used.[74] But the term "attribution" avoids any suggestion that the legal process of connecting conduct to the State is a fiction, or that the conduct in question is "really" that of someone else.

(13) In subparagraph (*b*), reference is made to the breach of an international obligation rather than a rule or a norm of international law. What matters for these purposes is not simply the existence of a rule but its application in the specific case to the responsible State. The term "obligation" is commonly used in international judicial decisions and practice and in the literature to cover all the possibilities. The reference to an "obligation" is limited to an obligation under international law, a matter further clarified in article 3.

Article 3. Characterization of an act of a State as internationally wrongful

The characterization of an act of a State as internationally wrongful is governed by international law. Such characterization is not affected by the characterization of the same act as lawful by internal law.

Commentary

(1) Article 3 makes explicit a principle already implicit in article 2, namely that the characterization of a given act as internationally wrongful is independent of its characterization as lawful under the internal law of the State concerned. There are two elements to this. First, an act of a State cannot be characterized as internationally wrongful unless it constitutes a breach of an international obligation, even if it violates a provision of the State's own law. Secondly and most importantly, a State cannot, by pleading that its conduct conforms to the provisions of its internal law, escape the characterization of that conduct as wrongful by international law. An act of a State must be characterized as internationally wrongful if it constitutes a breach of an international obligation, even if the act does not contravene the State's internal law—even if, under that law, the State was actually bound to act in that way.

(2) As to the first of these elements, perhaps the clearest judicial decision is that of PCIJ in the *Treatment of Polish Nationals* case.[75] The Court denied the Polish Government the right to submit to organs of the League of Nations questions concerning the application to Polish nationals of certain provisions of the Constitution of the Free City of Danzig, on the ground that:

> according to generally accepted principles, a State cannot rely, as against another State, on the provisions of the latter's Constitution, but only on international law and international obligations duly accepted ... [C]onversely, a State cannot adduce as against another State its own Constitution with a view to evading obligations incumbent upon it under international law or treaties in force ... The application of the Danzig Constitution may ... result in the violation of an international obligation incumbent on Danzig towards Poland, whether under treaty stipulations or under general international law ... However, in cases of such a nature, it is not the Constitution and other laws, as such, but the international obligation that gives rise to the responsibility of the Free City.[76]

(3) That conformity with the provisions of internal law in no way precludes conduct being characterized as internationally wrongful is equally well settled. Interna-

[73] For examples of analysis of different obligations, see *United States Diplomatic and Consular Staff in Tehran* (footnote 59 above), pp. 30–33, paras. 62–68; *"Rainbow Warrior"* (footnote 46 above), pp. 266–267, paras. 107–110; and WTO, Report of the Panel, United States–Sections 301–310 of the Trade Act of 1974 (WT/DS152/R), 22 December 1999, paras. 7.41 et seq.

[74] See, e.g., *United States Diplomatic and Consular Staff in Tehran* (footnote 59 above), p. 29, paras. 56 and 58; and *Military and Paramilitary Activities in and against Nicaragua* (footnote 36 above), p. 51, para. 86.

[75] *Treatment of Polish Nationals and Other Persons of Polish Origin or Speech in the Danzig Territory, Advisory Opinion, 1932, P.C.I.J., Series A/B, No. 44*, p. 4.

[76] *Ibid.*, pp. 24–25. See also *"Lotus", Judgment No. 9, 1927, P.C.I.J., Series A, No. 10*, p. 24.

(10) The reasons for this position are reinforced by the fact that federal States vary widely in their structure and distribution of powers, and that in most cases the constituent units have no separate international legal personality of their own (however limited), nor any treaty-making power. In those cases where the constituent unit of a federation is able to enter into international agreements on its own account,[120] the other party may well have agreed to limit itself to recourse against the constituent unit in the event of a breach. In that case the matter will not involve the responsibility of the federal State and will fall outside the scope of the present articles. Another possibility is that the responsibility of the federal State under a treaty may be limited by the terms of a federal clause in the treaty.[121] This is clearly an exception to the general rule, applicable solely in relations between the States parties to the treaty and in the matters which the treaty covers. It has effect by virtue of the *lex specialis* principle, dealt with in article 55.

(11) *Paragraph 2* explains the relevance of internal law in determining the status of a State organ. Where the law of a State characterizes an entity as an organ, no difficulty will arise. On the other hand, it is not sufficient to refer to internal law for the status of State organs. In some systems the status and functions of various entities are determined not only by law but also by practice, and reference exclusively to internal law would be misleading. The internal law of a State may not classify, exhaustively or at all, which entities have the status of "organs". In such cases, while the powers of an entity and its relation to other bodies under internal law will be relevant to its classification as an "organ", internal law will not itself perform the task of classification. Even if it does so, the term "organ" used in internal law may have a special meaning, and not the very broad meaning it has under article 4. For example, under some legal systems the term "government" refers only to bodies at the highest level such as the Head of State and the cabinet of ministers. In others, the police have a special status, independent of the executive; this cannot mean that for international law purposes they are not organs of the State.[122] Accordingly, a State cannot avoid responsibility for the conduct of a body which does in truth act as one of its organs merely by denying it that status under its own law. This result is achieved by the use of the word "includes" in paragraph 2.

(12) The term "person or entity" is used in article 4, paragraph 2, as well as in articles 5 and 7. It is used in a broad sense to include any natural or legal person, including an individual office holder, a department, commission or other body exercising public authority, etc. The term "entity" is used in a similar sense[123] in the draft articles on jurisdictional immunities of States and their property, adopted in 1991.

(13) Although the principle stated in article 4 is clear and undoubted, difficulties can arise in its application. A particular problem is to determine whether a person who is a State organ acts in that capacity. It is irrelevant for this purpose that the person concerned may have had ulterior or improper motives or may be abusing public power. Where such a person acts in an apparently official capacity, or under colour of authority, the actions in question will be attributable to the State. The distinction between unauthorized conduct of a State organ and purely private conduct has been clearly drawn in international arbitral decisions. For example, the award of the Mexico-United States General Claims Commission in the *Mallén* case involved, first, the act of an official acting in a private capacity and, secondly, another act committed by the same official in his official capacity, although in an abusive way.[124] The latter action was, and the former was not, held attributable to the State. The French-Mexican Claims Commission in the *Caire* case excluded responsibility only in cases where "the act had no connexion with the official function and was, in fact, merely the act of a private individual".[125] The case of purely private conduct should not be confused with that of an organ functioning as such but acting *ultra vires* or in breach of the rules governing its operation. In this latter case, the organ is nevertheless acting in the name of the State: this principle is affirmed in article 7.[126] In applying this test, of course, each case will have to be dealt with on the basis of its own facts and circumstances.

Article 5. Conduct of persons or entities exercising elements of governmental authority

The conduct of a person or entity which is not an organ of the State under article 4 but which is empowered by the law of that State to exercise elements of the governmental authority shall be considered an act of the State under international law, provided the person or entity is acting in that capacity in the particular instance.

Commentary

(1) Article 5 deals with the attribution to the State of conduct of bodies which are not State organs in the sense of article 4, but which are nonetheless authorized to exercise governmental authority. The article is intended to take account of the increasingly common phenomenon of parastatal entities, which exercise elements of governmental authority in place of State organs, as well as situations where former State corporations have been privatized but retain certain public or regulatory functions.

[120] See, e.g., articles 56, paragraph 3, and 172, paragraph 3, of the Constitution of the Swiss Confederation of 18 April 1999.

[121] See, e.g., article 34 of the Convention for the Protection of the World Cultural and Natural Heritage.

[122] See, e.g., the *Church of Scientology* case, Germany, Federal Supreme Court, Judgment of 26 September 1978, case No. *VI ZR* 267/76, *Neue Juristische Wochenschrift*, No. 21 (May 1979), p. 1101; ILR, vol. 65, p. 193; and *Propend Finance Pty Ltd.* v. *Sing*, England, Court of Appeal, ILR, vol. 111, p. 611 (1997). These were State immunity cases, but the same principle applies in the field of State responsibility.

[123] See *Yearbook … 1991*, vol. II (Part Two), pp. 14–18.

[124] *Mallén* (see footnote 117 above), at p. 175.

[125] UNRIAA, vol. V (Sales No. 1952.V.3), p. 516, at p. 531 (1929). See also the *Bensley* case in Moore, *History and Digest*, vol. III, p. 3018 (1850) ("a wanton trespass … under no color of official proceedings, and without any connection with his official duties"); and the *Castelain* case *ibid.*, p. 2999 (1880). See further article 7 and commentary.

[126] See paragraph (7) of the commentary to article 7.

(2) The generic term "entity" reflects the wide variety of bodies which, though not organs, may be empowered by the law of a State to exercise elements of governmental authority. They may include public corporations, semi-public entities, public agencies of various kinds and even, in special cases, private companies, provided that in each case the entity is empowered by the law of the State to exercise functions of a public character normally exercised by State organs, and the conduct of the entity relates to the exercise of the governmental authority concerned. For example, in some countries private security firms may be contracted to act as prison guards and in that capacity may exercise public powers such as powers of detention and discipline pursuant to a judicial sentence or to prison regulations. Private or State-owned airlines may have delegated to them certain powers in relation to immigration control or quarantine. In one case before the Iran-United States Claims Tribunal, an autonomous foundation established by the State held property for charitable purposes under close governmental control; its powers included the identification of property for seizure. It was held that it was a public and not a private entity, and therefore within the tribunal's jurisdiction; with respect to its administration of allegedly expropriated property, it would in any event have been covered by article 5.[127]

(3) The fact that an entity can be classified as public or private according to the criteria of a given legal system, the existence of a greater or lesser State participation in its capital, or, more generally, in the ownership of its assets, the fact that it is not subject to executive control—these are not decisive criteria for the purpose of attribution of the entity's conduct to the State. Instead, article 5 refers to the true common feature, namely that these entities are empowered, if only to a limited extent or in a specific context, to exercise specified elements of governmental authority.

(4) Parastatal entities may be considered a relatively modern phenomenon, but the principle embodied in article 5 has been recognized for some time. For example, the replies to the request for information made by the Preparatory Committee for the 1930 Hague Conference indicated strong support from some Governments for the attribution to the State of the conduct of autonomous bodies exercising public functions of an administrative or legislative character. The German Government, for example, asserted that:

> when, by delegation of powers, bodies act in a public capacity, *e.g.*, police an area … the principles governing the responsibility of the State for its organs apply with equal force. From the point of view of international law, it does not matter whether a State polices a given area with its own police or entrusts this duty, to a greater or less extent, to autonomous bodies.[128]

The Preparatory Committee accordingly prepared the following basis of discussion, though the Third Committee of the Conference was unable in the time available to examine it:

> A State is responsible for damage suffered by a foreigner as the result of acts or omissions of such … autonomous institutions as exercise public functions of a legislative or administrative character, if such acts or omissions contravene the international obligations of the State.[129]

(5) The justification for attributing to the State under international law the conduct of "parastatal" entities lies in the fact that the internal law of the State has conferred on the entity in question the exercise of certain elements of the governmental authority. If it is to be regarded as an act of the State for purposes of international responsibility, the conduct of an entity must accordingly concern governmental activity and not other private or commercial activity in which the entity may engage. Thus, for example, the conduct of a railway company to which certain police powers have been granted will be regarded as an act of the State under international law if it concerns the exercise of those powers, but not if it concerns other activities (e.g. the sale of tickets or the purchase of rolling stock).

(6) Article 5 does not attempt to identify precisely the scope of "governmental authority" for the purpose of attribution of the conduct of an entity to the State. Beyond a certain limit, what is regarded as "governmental" depends on the particular society, its history and traditions. Of particular importance will be not just the content of the powers, but the way they are conferred on an entity, the purposes for which they are to be exercised and the extent to which the entity is accountable to government for their exercise. These are essentially questions of the application of a general standard to varied circumstances.

(7) The formulation of article 5 clearly limits it to entities which are empowered by internal law to exercise governmental authority. This is to be distinguished from situations where an entity acts under the direction or control of the State, which are covered by article 8, and those where an entity or group seizes power in the absence of State organs but in situations where the exercise of governmental authority is called for: these are dealt with in article 9. For the purposes of article 5, an entity is covered even if its exercise of authority involves an independent discretion or power to act; there is no need to show that the conduct was in fact carried out under the control of the State. On the other hand, article 5 does not extend to cover, for example, situations where internal law authorizes or justifies certain conduct by way of self-help or self-defence; i.e. where it confers powers upon or authorizes conduct by citizens or residents generally. The internal law in question must specifically authorize the conduct as involving the exercise of public authority; it is not enough that it permits activity as part of the general regulation of the affairs of the community. It is accordingly a narrow category.

Article 6. Conduct of organs placed at the disposal of a State by another State

The conduct of an organ placed at the disposal of a State by another State shall be considered an act of the former State under international law if the organ is

[127] *Hyatt International Corporation* v. *The Government of the Islamic Republic of Iran*, Iran-U.S. C.T.R., vol. 9, p. 72, at pp. 88–94 (1985).

[128] League of Nations, Conference for the Codification of International Law, *Bases of Discussion …* (see footnote 88 above), p. 90. The German Government noted that these remarks would extend to the situation where "the State, as an exceptional measure, invests private organisations with public powers and duties or authorities [*sic*] them to exercise sovereign rights, as in the case of private railway companies permitted to maintain a police force", *ibid.*

[129] *Ibid.*, p. 92.

Article 48. Invocation of responsibility by a State other than an injured State

1. Any State other than an injured State is entitled to invoke the responsibility of another State in accordance with paragraph 2 if:

(*a*) the obligation breached is owed to a group of States including that State, and is established for the protection of a collective interest of the group; or

(*b*) the obligation breached is owed to the international community as a whole.

2. Any State entitled to invoke responsibility under paragraph 1 may claim from the responsible State:

(*a*) cessation of the internationally wrongful act, and assurances and guarantees of non-repetition in accordance with article 30; and

(*b*) performance of the obligation of reparation in accordance with the preceding articles, in the interest of the injured State or of the beneficiaries of the obligation breached.

3. The requirements for the invocation of responsibility by an injured State under articles 43, 44 and 45 apply to an invocation of responsibility by a State entitled to do so under paragraph 1.

Commentary

(1) Article 48 complements the rule contained in article 42. It deals with the invocation of responsibility by States other than the injured State acting in the collective interest. A State which is entitled to invoke responsibility under article 48 is acting not in its individual capacity by reason of having suffered injury, but in its capacity as a member of a group of States to which the obligation is owed, or indeed as a member of the international community as a whole. The distinction is underlined by the phrase "[a]ny State other than an injured State" in paragraph 1 of article 48.

(2) Article 48 is based on the idea that in case of breaches of specific obligations protecting the collective interests of a group of States or the interests of the international community as a whole, responsibility may be invoked by States which are not themselves injured in the sense of article 42. Indeed, in respect of obligations to the international community as a whole, ICJ specifically said as much in its judgment in the *Barcelona Traction* case.[721] Although the Court noted that "all States can be held to have a legal interest in" the fulfilment of these rights, article 48 refrains from qualifying the position of the States identified in article 48, for example by referring to them as "interested States". The term "legal interest" would not permit a distinction between articles 42 and 48, as injured States in the sense of article 42 also have legal interests.

(3) As to the structure of article 48, paragraph 1 defines the categories of obligations which give rise to the wider right to invoke responsibility. Paragraph 2 stipulates which forms of responsibility States other than injured States may claim. Paragraph 3 applies the requirements of invocation contained in articles 43, 44 and 45 to cases where responsibility is invoked under article 48, paragraph 1.

(4) *Paragraph 1* refers to "[a]ny State other than an injured State". In the nature of things, all or many States will be entitled to invoke responsibility under article 48, and the term "[a]ny State" is intended to avoid any implication that these States have to act together or in unison. Moreover, their entitlement will coincide with that of any injured State in relation to the same internationally wrongful act in those cases where a State suffers individual injury from a breach of an obligation to which article 48 applies.

(5) Paragraph 1 defines the categories of obligations, the breach of which may entitle States other than the injured State to invoke State responsibility. A distinction is drawn between obligations owed to a group of States and established to protect a collective interest of the group (paragraph 1 (*a*)), and obligations owed to the international community as a whole (paragraph 1 (*b*)).[722]

(6) Under *paragraph 1* (a), States other than the injured State may invoke responsibility if two conditions are met: first, the obligation whose breach has given rise to responsibility must have been owed to a group to which the State invoking responsibility belongs; and secondly, the obligation must have been established for the protection of a collective interest. The provision does not distinguish between different sources of international law; obligations protecting a collective interest of the group may derive from multilateral treaties or customary international law. Such obligations have sometimes been referred to as "obligations *erga omnes partes*".

(7) Obligations coming within the scope of paragraph 1 (*a*) have to be "collective obligations", i.e. they must apply between a group of States and have been established in some collective interest.[723] They might concern, for example, the environment or security of a region (e.g. a regional nuclear-free-zone treaty or a regional system for the protection of human rights). They are not limited to arrangements established only in the interest of the member States but would extend to agreements established by a group of States in some wider common interest.[724] But in any event the arrangement must transcend the sphere of bilateral relations of the States parties. As to the requirement that the obligation in question protect a collective interest, it is not the function of the articles to provide an enumeration of such interests. If they fall within paragraph 1 (*a*), their principal purpose will be to foster a common interest, over and above any interests of the States concerned individually. This would include situations in

[721] *Barcelona Traction* (see footnote 25 above), p. 32, para. 33.

[722] For the extent of responsibility for serious breaches of obligations to the international community as a whole, see Part Two, chap. III and commentary.

[723] See also paragraph (11) of the commentary to article 42.

[724] In the *S.S. "Wimbledon"* (see footnote 34 above), the Court noted "[t]he intention of the authors of the Treaty of Versailles to facilitate access to the Baltic by establishing an international regime, and consequently to keep the canal open at all times to foreign vessels of every kind" (p. 23).

which States, attempting to set general standards of protection for a group or people, have assumed obligations protecting non-State entities.[725]

(8) Under *paragraph 1* (b), States other than the injured State may invoke responsibility if the obligation in question was owed "to the international community as a whole".[726] The provision intends to give effect to the statement by ICJ in the *Barcelona Traction* case, where the Court drew "an essential distinction" between obligations owed to particular States and those owed "towards the international community as a whole".[727] With regard to the latter, the Court went on to state that "[i]n view of the importance of the rights involved, all States can be held to have a legal interest in their protection; they are obligations *erga omnes*".

(9) While taking up the essence of this statement, the articles avoid use of the term "obligations *erga omnes*", which conveys less information than the Court's reference to the international community as a whole and has sometimes been confused with obligations owed to all the parties to a treaty. Nor is it the function of the articles to provide a list of those obligations which under existing international law are owed to the international community as a whole. This would go well beyond the task of codifying the secondary rules of State responsibility, and in any event, such a list would be only of limited value, as the scope of the concept will necessarily evolve over time. The Court itself has given useful guidance: in its 1970 judgment it referred, by way of example, to "the outlawing of acts of aggression, and of genocide" and to "the principles and rules concerning the basic rights of the human person, including protection from slavery and racial discrimination".[728] In its judgment in the *East Timor* case, the Court added the right of self-determination of peoples to this list.[729]

(10) Each State is entitled, as a member of the international community as a whole, to invoke the responsibility of another State for breaches of such obligations. Whereas the category of collective obligations covered by paragraph 1 (*a*) needs to be further qualified by the insertion of additional criteria, no such qualifications are necessary in the case of paragraph 1 (*b*). All States are by definition members of the international community as a whole, and the obligations in question are by definition collective obligations protecting interests of the international community as such. Of course, such obligations may at the same time protect the individual interests of States, as the prohibition of acts of aggression protects the survival of each State and the security of its people. Similarly, individual States may be specially affected by the breach of such an obligation, for example a coastal State specially affected by pollution in breach of an obligation aimed at protection of the marine environment in the collective interest.

(11) *Paragraph 2* specifies the categories of claim which States may make when invoking responsibility under article 48. The list given in the paragraph is exhaustive, and invocation of responsibility under article 48 gives rise to a more limited range of rights as compared to those of injured States under article 42. In particular, the focus of action by a State under article 48—such State not being injured in its own right and therefore not claiming compensation on its own account—is likely to be on the very question whether a State is in breach and on cessation if the breach is a continuing one. For example, in the *S.S. "Wimbledon"* case, Japan, which had no economic interest in the particular voyage, sought only a declaration, whereas France, whose national had to bear the loss, sought and was awarded damages.[730] In the *South West Africa* cases, Ethiopia and Liberia sought only declarations of the legal position.[731] In that case, as the Court itself pointed out in 1971, "the injured entity" was a people, viz. the people of South West Africa.[732]

(12) Under *paragraph 2* (a), any State referred to in article 48 is entitled to request cessation of the wrongful act and, if the circumstances require, assurances and guarantees of non-repetition under article 30. In addition, *paragraph 2* (b) allows such a State to claim from the responsible State reparation in accordance with the provisions of chapter II of Part Two. In case of breaches of obligations under article 48, it may well be that there is no State which is individually injured by the breach, yet it is highly desirable that some State or States be in a position to claim reparation, in particular restitution. In accordance with paragraph 2 (*b*), such a claim must be made in the interest of the injured State, if any, or of the beneficiaries of the obligation breached. This aspect of article 48, paragraph 2, involves a measure of progressive development, which is justified since it provides a means of protecting the community or collective interest at stake. In this context it may be noted that certain provisions, for example in various human rights treaties, allow invocation of responsibility by any State party. In those cases where they have been resorted to, a clear distinction has been drawn between the capacity of the applicant State to raise the matter and the interests of the beneficiaries of the obligation.[733] Thus, a State invoking responsibility under article 48 and claiming anything more than a declaratory remedy and cessation may be called on to establish that it is acting in the interest of the injured party. Where the injured party is a State, its Government will be able authoritatively to represent that interest. Other cases may present greater difficulties, which the present articles

[725] Article 22 of the Covenant of the League of Nations, establishing the Mandate system, was a provision in the general interest in this sense, as were each of the Mandate agreements concluded in accordance with it. Cf., however, the much-criticized decision of ICJ in *South West Africa, Second Phase, Judgment, I.C.J. Reports 1966*, p. 6, from which article 48 is a deliberate departure.

[726] For the terminology "international community as a whole", see paragraph (18) of the commentary to article 25.

[727] *Barcelona Traction* (see footnote 25 above), p. 32, para. 33, and see paragraphs (2) to (6) of the commentary to chapter III of Part Two.

[728] *Barcelona Traction* (*ibid.*), p. 32, para. 34.

[729] See footnote 54 above.

[730] *S.S. "Wimbledon"* (see footnote 34 above), p. 30.

[731] *South West Africa, Preliminary Objections, Judgment, I.C.J. Reports 1962*, p. 319; *South West Africa, Second Phase, Judgment* (see footnote 725 above).

[732] *Namibia* case (see footnote 176 above), p. 56, para. 127.

[733] See, e.g., the observations of the European Court of Human Rights in *Denmark* v. *Turkey* (friendly settlement), judgment of 5 April 2000, Reports of Judgments and Decisions 2000-IV, pp. 7, 10 and 11, paras. 20 and 23.

cannot solve.[734] Paragraph 2 (*b*) can do no more than set out the general principle.

(13) Paragraph 2 (*b*) refers to the State claiming "[p]erformance of the obligation of reparation in accordance with the preceding articles". This makes it clear that article 48 States may not demand reparation in situations where an injured State could not do so. For example, a demand for cessation presupposes the continuation of the wrongful act; a demand for restitution is excluded if restitution itself has become impossible.

(14) *Paragraph 3* subjects the invocation of State responsibility by States other than the injured State to the conditions that govern invocation by an injured State, specifically article 43 (notice of claim), 44 (admissibility of claims) and 45 (loss of the right to invoke responsibility). These articles are to be read as applicable equally, *mutatis mutandis*, to a State invoking responsibility under article 48.

Chapter II

COUNTERMEASURES

Commentary

(1) This chapter deals with the conditions for and limitations on the taking of countermeasures by an injured State. In other words, it deals with measures that would otherwise be contrary to the international obligations of an injured State *vis-à-vis* the responsible State, if they were not taken by the former in response to an internationally wrongful act by the latter in order to procure cessation and reparation. Countermeasures are a feature of a decentralized system by which injured States may seek to vindicate their rights and to restore the legal relationship with the responsible State which has been ruptured by the internationally wrongful act.

(2) It is recognized both by Governments and by the decisions of international tribunals that countermeasures are justified under certain circumstances.[735] This is reflected in article 22 which deals with countermeasures in response to an internationally wrongful act in the context of the circumstances precluding wrongfulness. Like other forms of self-help, countermeasures are liable to abuse and this potential is exacerbated by the factual inequalities between States. Chapter II has as its aim to establish an operational system, taking into account the exceptional character of countermeasures as a response to internationally wrongful conduct. At the same time, it seeks to ensure, by appropriate conditions and limitations, that countermeasures are kept within generally acceptable bounds.

(3) As to terminology, traditionally the term "reprisals" was used to cover otherwise unlawful action, including forcible action, taken by way of self-help in response to a breach.[736] More recently, the term "reprisals" has been limited to action taken in time of international armed conflict; i.e. it has been taken as equivalent to belligerent reprisals. The term "countermeasures" covers that part of the subject of reprisals not associated with armed conflict, and in accordance with modern practice and judicial decisions the term is used in that sense in this chapter.[737] Countermeasures are to be contrasted with retorsion, i.e. "unfriendly" conduct which is not inconsistent with any international obligation of the State engaging in it even though it may be a response to an internationally wrongful act. Acts of retorsion may include the prohibition of or limitations upon normal diplomatic relations or other contacts, embargoes of various kinds or withdrawal of voluntary aid programmes. Whatever their motivation, so long as such acts are not incompatible with the international obligations of the States taking them towards the target State, they do not involve countermeasures and they fall outside the scope of the present articles. The term "sanction" is also often used as equivalent to action taken against a State by a group of States or mandated by an international organization. But the term is imprecise: Chapter VII of the Charter of the United Nations refers only to "measures", even though these can encompass a very wide range of acts, including the use of armed force (Articles 39, 41 and 42). Questions concerning the use of force in international relations and of the legality of belligerent reprisals are governed by the relevant primary rules. On the other hand, the articles are concerned with countermeasures as referred to in article 22. They are taken by an injured State in order to induce the responsible State to comply with its obligations under Part Two. They are instrumental in character and are appropriately dealt with in Part Three as an aspect of the implementation of State responsibility.

(4) Countermeasures are to be clearly distinguished from the termination or suspension of treaty relations on account of the material breach of a treaty by another State, as provided for in article 60 of the 1969 Vienna Convention. Where a treaty is terminated or suspended in accordance with article 60, the substantive legal obligations of the States parties will be affected, but this is quite different from the question of responsibility that may already have arisen from the breach.[738] Countermeasures involve conduct taken in derogation from a subsisting treaty

[734] See also paragraphs (3) to (4) of the commentary to article 33.

[735] For the substantial literature, see the bibliographies in E. Zoller, *Peacetime Unilateral Remedies: An Analysis of Countermeasures* (Dobbs Ferry, N.Y., Transnational, 1984), pp. 179–189; O. Y. Elagab, *The Legality of Non-Forcible Counter-Measures in International Law* (Oxford, Clarendon Press, 1988), pp. 227–241; L.-A. Sicilianos, *Les réactions décentralisées à l'illicite: Des contre-mesures à la légitime défense* (Paris, Librairie générale de droit et de jurisprudence, 1990), pp. 501–525; and D. Alland, *Justice privée et ordre juridique international: Etude théorique des contre-mesures en droit international public* (Paris, Pedone, 1994).

[736] See, e.g., E. de Vattel, *The Law of Nations, or the Principles of Natural Law* (footnote 394 above), vol. II, chap. XVIII, p. 342.

[737] *Air Service Agreement* (see footnote 28 above), p. 443, para. 80; *United States Diplomatic and Consular Staff in Tehran* (see footnote 59 above), p. 27, para. 53; *Military and Paramilitary Activities in and against Nicaragua* (see footnote 36 above), at p. 106, para. 201; and *Gabčíkovo-Nagymaros Project* (see footnote 27 above), p. 55, para. 82.

[738] On the respective scope of the codified law of treaties and the law of State responsibility, see paragraphs (3) to (7) of the introductory commentary to chapter V of Part One.

Annex 496

"Commentaries on the Draft articles on Prevention of Transboundary Harm from Hazardous Activities", Report of the Commission to the General Assembly on the work of its fifty-third session, Yearbook of the International Law Commission, A/CN.4/SER.A/2001/Add.1 (Part 2), *International Law Commission,* 10 August 2001, pages 159-160, 164-165

A/CN.4/SER.A/2001/Add.1 (Part 2)

YEARBOOK OF THE INTERNATIONAL LAW COMMISSION

2001

Volume II
Part Two

Report of the Commission
to the General Assembly
on the work
of its fifty-third session

UNITED NATIONS
New York and Geneva, 2007

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

References to the *Yearbook of the International Law Commission* are abbreviated to *Yearbook* …, followed by the year (for example, *Yearbook … 2000*).

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Volume I: summary records of the meetings of the session;

Volume II (Part One): reports of special rapporteurs and other documents considered during the session;

Volume II (Part Two): report of the Commission to the General Assembly.

All references to these works and quotations from them relate to the final printed texts of the volumes of the *Yearbook* issued as United Nations publications.

A/CN.4/SER.A/2001/Add.1 (Part 2)

UNITED NATIONS PUBLICATION

Sales No. E.04.V.17 (Part 2)
ISBN 978-92-1-133591-0

ISSN 0082-8289

conducting such assessment.[905] For the purposes of article 7, however, such an assessment should contain an evaluation of the possible transboundary harmful impact of the activity. In order for the States likely to be affected to evaluate the risk to which they might be exposed, they need to know what possible harmful effects that activity might have on them.

(8) The assessment should include the effects of the activity not only on persons and property, but also on the environment of other States. The importance of the protection of the environment, independently of any harm to individual human beings or property, is clearly recognized.

(9) This article does not oblige the State of origin to require risk assessment for any activity being undertaken within their territory or otherwise under their jurisdiction or control. Activities involving a risk of causing significant transboundary harm have some general characteristics which are identifiable and could provide some indication to States as to which activities might fall within the terms of these articles. For example, the type of the source of energy used in manufacturing, the location of the activity and its proximity to the border area, etc. could all give an indication of whether the activity might fall within the scope of these articles. There are certain substances that are listed in some conventions as dangerous or hazardous and their use in any activity may in itself be an indication that those activities might involve a risk of significant transboundary harm.[906] There are also certain conventions that list the activities that are presumed to be harmful and that might signal that those activities might fall within the scope of these articles.[907]

Article 8. Notification and information

1. If the assessment referred to in article 7 indicates a risk of causing significant transboundary harm, the State of origin shall provide the State likely to be affected with timely notification of the risk and the assessment and shall transmit to it the available technical and all other relevant information on which the assessment is based.

2. The State of origin shall not take any decision on authorization of the activity pending the receipt, within a period not exceeding six months, of the response from the State likely to be affected.

Commentary

(1) Article 8 deals with a situation in which the assessment undertaken by a State of origin, in accordance with article 7, indicates that the activity planned does indeed pose a risk of causing significant transboundary harm. This article, together with articles 9, 11, 12 and 13, provides for a set of procedures essential to balancing the interests of all the States concerned by giving them a reasonable opportunity to find a way to undertake the activity with satisfactory and reasonable measures designed to prevent or minimize transboundary harm.

(2) Article 8 calls on the State of origin to notify States likely to be affected by the planned activity. The activities here include both those that are planned by the State itself and those planned by private entities. The requirement of notification is an indispensable part of any system designed to prevent transboundary harm or at any event to minimize the risk thereof.

(3) The obligation to notify other States of the risk of significant harm to which they are exposed is reflected in the *Corfu Channel* case, where ICJ characterized the duty to warn as based on "elementary considerations of humanity".[908] This principle is recognized in the context of the use of international watercourses and in that context is embodied in a number of international agreements, decisions of international courts and tribunals, declarations and resolutions adopted by intergovernmental organizations, conferences and meetings, and studies by intergovernmental and international non-governmental organizations.[909]

(4) In addition to the utilization of international watercourses, the principle of notification has also been recognized in respect of other activities with transboundary effects, for example, article 3 of the Convention on Environmental Impact Assessment in a Transboundary Context[910] and articles 3 and 10 of the Convention on the Transboundary Effects of Industrial Accidents. Principle 19 of the Rio Declaration speaks of timely notification:

> States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.[911]

[905] For the format of environmental impact assessment adopted in most legislations, see M. Yeater and L. Kurukulasuriya, *loc. cit*. (footnote 901 above), p. 260.

[906] For example, the Convention for the Prevention of Marine Pollution from Land-based Sources provides in article 4 an obligation for the parties to eliminate or restrict the pollution of the environment by certain substances, and the list of those substances is annexed to the Convention. Similarly, the Convention on the Protection of the Marine Environment of the Baltic Sea Area provides a list of hazardous substances in annex I and of noxious substances and materials in annex II, deposits of which are either prohibited or strictly limited; see also the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources; and the Agreement for the Protection of the Rhine against Chemical Pollution.

[907] See footnote 864 above.

[908] *Corfu Channel* (see footnote 35 above), p. 22.

[909] For treaties dealing with prior notification and exchange of information in respect of watercourses, see paragraph (6) of the commentary to article 12 (Notification concerning planned measures with possible adverse effects), of the draft articles on the law of the non-navigational uses of international watercourses (*Yearbook ... 1994*, vol. II (Part Two), pp. 119–120).

[910] Article 3, paragraph 2, of the Convention provides for a system of notification which reads:

> "This notification shall contain, *inter alia*:
>
> "(*a*) Information on the proposed activity, including any available information on its possible transboundary impact;
>
> "(*b*) The nature of the possible decision; and
>
> "(*c*) An indication of a reasonable time within which a response under paragraph 3 of this Article is required, taking into account the nature of the proposed activity;
>
> "and may include the information set out in paragraph 5 of this Article."

[911] See footnote 857 above.

(5) The procedure for notification has been established by a number of OECD resolutions. For example, in respect of certain chemical substances, the annex to OECD resolution C(71)73 of 18 May 1971 stipulates that each member State is to receive notification prior to the proposed measures in each other member State regarding substances which have an adverse impact on man or the environment where such measures could have significant effects on the economies and trade of the other States.[912] The annex to OECD Council recommendation C(74)224 of 14 November 1974 on "Some principles concerning transfrontier pollution" in its "Principle of information and consultation" requires notification and consultation prior to undertaking an activity which may create a risk of significant transboundary pollution.[913] The principle of notification is well established in the case of environmental emergencies.[914]

(6) Where assessment reveals the risk of causing significant transboundary harm, in accordance with *paragraph 1*, the State which plans to undertake such activity has the obligation to notify the States which may be affected. The notification shall be accompanied by available technical information on which the assessment is based. The reference to "available" technical and other relevant information is intended to indicate that the obligation of the State of origin is limited to transmitting the technical and other information which was developed in relation to the activity. This information is generally revealed during the assessment of the activity in accordance with article 7. Paragraph 1 assumes that technical information resulting from the assessment includes not only what might be called raw data, namely fact sheets, statistics, etc., but also the analysis of the information which was used by the State of origin itself to make the determination regarding the risk of transboundary harm. The reference to the available data includes also other data which might become available later after transmitting the data which was initially available to the States likely to be affected.

(7) States are free to decide how they wish to inform the States that are likely to be affected. As a general rule, it is assumed that States will directly contact the other States through diplomatic channels.

(8) Paragraph 1 also addresses the situation where the State of origin, despite all its efforts and diligence, is unable to identify *all* the States which may be affected prior to authorizing the activity and gains that knowledge only after the activity is undertaken. In accordance with this paragraph, the State of origin, in such cases, is under an obligation to notify the other States likely to be affected as soon as the information comes to its knowledge and it has had an opportunity, within a reasonable time, to determine the States concerned.

(9) *Paragraph 2* addresses the need for the States likely to be affected to respond within a period not exceeding six months. It is generally a period of time that should allow these States to evaluate the data involved and arrive at their own conclusion. This is a requirement that is conditioned by cooperation and good faith.

Article 9. Consultations on preventive measures

1. The States concerned shall enter into consultations, at the request of any of them, with a view to achieving acceptable solutions regarding measures to be adopted in order to prevent significant transboundary harm or at any event to minimize the risk thereof. The States concerned shall agree, at the commencement of such consultations, on a reasonable time frame for the consultations.

2. The States concerned shall seek solutions based on an equitable balance of interests in the light of article 10.

3. If the consultations referred to in paragraph 1 fail to produce an agreed solution, the State of origin shall nevertheless take into account the interests of the State likely to be affected in case it decides to authorize the activity to be pursued, without prejudice to the rights of any State likely to be affected.

Commentary

(1) Article 9 requires the States concerned, that is, the State of origin and the States that are likely to be affected, to enter into consultations in order to agree on the measures to prevent significant transboundary harm, or at any event to minimize the risk thereof. Depending upon the time at which article 9 is invoked, consultations may be prior to authorization and commencement of an activity or during its performance.

(2) There is a need to maintain a balance between two equally important considerations in this article. First, the article deals with activities that are not prohibited by international law and that, normally, are important to the economic development of the State of origin. Secondly, it would be unfair to other States to allow those activities to be conducted without consulting them and taking appropriate preventive measures. Therefore, the article does not provide a mere formality which the State of origin has to go through with no real intention of reaching a solution acceptable to the other States, nor does it provide a right of veto for the States that are likely to be affected. To maintain a balance, the article relies on the manner in which, and purpose for which, the parties enter into consultations. The parties must enter into consultations in good faith and must take into account each other's legitimate interests. The parties should consult each other with a view to arriving at an acceptable solution regarding the measures to be adopted to prevent significant transboundary harm, or at any event to minimize the risk thereof.

(3) The principle of good faith is an integral part of any requirement of consultations and negotiations. The obligation to consult and negotiate genuinely and in good faith was recognized in the *Lake Lanoux* award where the tribunal stated that:

[912] OECD, *OECD and the Environment* (see footnote 875 above), annex, p. 91, para. 1.

[913] *Ibid*., p. 142.

[914] See paragraph (1) of the commentary to article 17.

(13) According to *subparagraph* (f), States should also take into account the standards of prevention applied to the same or comparable activities in the State likely to be affected, other regions or, if they exist, the international standards of prevention applicable for similar activities. This is particularly relevant when, for example, the States concerned do not have any standard of prevention for such activities, or they wish to improve their existing standards.

Article 11. Procedures in the absence of notification

1. If a State has reasonable grounds to believe that an activity planned or carried out in the State of origin may involve a risk of causing significant transboundary harm to it, it may request the State of origin to apply the provision of article 8. The request shall be accompanied by a documented explanation setting forth its grounds.

2. In the event that the State of origin nevertheless finds that it is not under an obligation to provide a notification under article 8, it shall so inform the requesting State within a reasonable time, providing a documented explanation setting forth the reasons for such finding. If this finding does not satisfy that State, at its request, the two States shall promptly enter into consultations in the manner indicated in article 9.

3. During the course of the consultations, the State of origin shall, if so requested by the other State, arrange to introduce appropriate and feasible measures to minimize the risk and, where appropriate, to suspend the activity in question for a reasonable period.

Commentary

(1) Article 11 addresses the situation in which a State, although it has received no notification about an activity in accordance with article 8, becomes aware that an activity is being carried out in the State of origin, either by the State itself or by a private operator, and believes, on reasonable grounds, that the activity carries a risk of causing it significant harm.

(2) The expression "a State" is not intended to exclude the possibility that more than one State could entertain the belief that a planned activity could adversely affect them in a significant way. The words "apply the provision of article 8" should not be taken as suggesting that the State which intends to authorize or has authorized an activity has necessarily failed to comply with its obligations under article 8. In other words, the State of origin may have made an assessment of the potential of the planned activity for causing significant transboundary harm and concluded in good faith that no such effects would result therefrom. *Paragraph 1* allows a State to request that the State of origin take a "second look" at its assessment and conclusion, and does not prejudge the question whether the State of origin initially complied with its obligations under article 8.

(3) The State likely to be affected could make such a request, however, only upon satisfaction of two conditions. The first is that the requesting State must have "reasonable grounds to believe" that the activity in question may involve a risk of causing significant transboundary harm. The second is that the requesting State must provide a "documented explanation setting forth its grounds". These conditions are intended to require that the requesting State have more than a vague and unsubstantiated apprehension. A serious and substantiated belief is necessary, particularly in view of the possibility that the State of origin may be required to suspend implementation of its plans under paragraph 3 of article 11.

(4) The first sentence of *paragraph 2* deals with the case in which the planning State concludes, after taking a "second look" as described in paragraph (2) of the present commentary, that it is not under an obligation to provide a notification under article 8. In such a situation, paragraph 2 seeks to maintain a fair balance between the interests of the States concerned by requiring the State of origin to provide the same kind of justification for its finding as was required of the requesting State under paragraph 1. The second sentence of paragraph 2 deals with the case in which the finding of the State of origin does not satisfy the requesting State. It requires that, in such a situation, the State of origin promptly enter into consultations with the other State (or States), at the request of the latter. The consultations are to be conducted in the manner indicated in paragraphs 1 and 2 of article 9. In other words, their purpose is to achieve "acceptable solutions" regarding measures to be adopted in order to prevent significant transboundary harm or at any event to minimize the risk thereof, and that the solutions to be sought should be "based on an equitable balance of interests". These phrases are discussed in the commentary to article 9.

(5) *Paragraph 3* requires the State of origin to introduce appropriate and feasible measures to minimize the risk and, where appropriate, to suspend the activity in question for a reasonable period, if it is requested to do so by the other State during the course of consultations. States concerned could also agree otherwise.

(6) Similar provisions have been provided for in other legal instruments. Article 18 of the Convention on the Law of the Non-navigational Uses of International Watercourses, and article 3, paragraph 7, of the Convention on Environmental Impact Assessment in a Transboundary Context also contemplate a procedure whereby a State likely to be affected by an activity can initiate consultations with the State of origin.

Article 12. Exchange of information

While the activity is being carried out, the States concerned shall exchange in a timely manner all available information concerning that activity relevant to preventing significant transboundary harm or at any event minimizing the risk thereof. Such an exchange of information shall continue until such time as the States concerned consider it appropriate even after the activity is terminated.

Commentary

(1) Article 12 deals with steps to be taken after an activity has been undertaken. The purpose of all these steps is the same as previous articles, viz. to prevent significant transboundary harm or at any event to minimize the risk thereof.

(2) Article 12 requires the State of origin and the States likely to be affected to exchange information regarding the activity after it has been undertaken. The phrase "concerning that activity" after the words "all available information" is intended to emphasize the link between the information and the activity and not any information. The duty of prevention based on the concept of due diligence is not a one-time effort but requires continuous effort. This means that due diligence is not terminated after granting authorization for the activity and undertaking the activity; it continues in respect of monitoring the implementation of the activity as long as the activity continues.

(3) The information that is required to be exchanged, under article 12, is whatever would be useful, in the particular instance, for the purpose of prevention of risk of significant harm. Normally, such information comes to the knowledge of the State of origin. However, when the State that is likely to be affected has any information which might be useful for prevention purposes, it should make it available to the State of origin.

(4) The requirement of exchange of information is fairly common in conventions designed to prevent or reduce environmental and transboundary harm. These conventions provide for various ways of gathering and exchanging information, either between the parties or through providing the information to an international organization which makes it available to other States.[930] In the context of these articles, where the activities are most likely to involve a few States, the exchange of information is effected between the States directly concerned. Where the information might affect a large number of States, relevant information may be exchanged through other avenues, such as, for example, competent international organizations.

(5) Article 12 requires that such information should be exchanged in a *timely manner*. This means that when the State becomes aware of such information, it should inform the other States quickly so that there will be enough time for the States concerned to consult on appropriate preventive measures or the States likely to be affected will have sufficient time to take proper actions.

[930] For example, article 10 of the Convention for the Prevention of Marine Pollution from Land-based Sources, article 200 of the United Nations Convention on the Law of the Sea and article 4 of the Vienna Convention for the Protection of the Ozone Layer speak of individual or joint research by the States parties on prevention or reduction of pollution and of transmitting to each other directly or through a competent international organization the information so obtained. The Convention on Long-Range Transboundary Air Pollution provides for research and exchange of information regarding the impact of activities undertaken by the States parties. Examples are found in other instruments such as section VI, para. 1 (*b*) (iii), of the Code of Conduct on Accidental Pollution of Transboundary Inland Waters (see footnote 871 above), article 17 of the Convention on Biological Diversity and article 13 of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes.

(6) There is no requirement in the article as to the frequency of exchange of information. The requirement of article 12 comes into operation only when States have any information which is relevant to preventing transboundary harm or at any rate to minimizing the risk thereof.

(7) The second sentence of article 12 is designed to ensure exchange of information under this provision not only while an activity is "carried out", but even after it ceases to exist, if the activity leaves behind by-products or materials associated with the activity which require monitoring to avoid the risk of significant transboundary harm. An example in this regard is nuclear activity which leaves behind nuclear waste even after the activity is terminated. But it is a recognition of the fact that the consequences of certain activities even after they are terminated continue to pose a significant risk of transboundary harm. Under these circumstances, the obligations of the State of origin do not end with the termination of the activity.

Article 13. Information to the public

States concerned shall, by such means as are appropriate, provide the public likely to be affected by an activity within the scope of the present articles with relevant information relating to that activity, the risk involved and the harm which might result and ascertain their views.

Commentary

(1) Article 13 requires States, whenever possible and by such means as are appropriate, to provide the public likely to be affected, whether their own or that of other States, with information relating to the risk and harm that might result from an activity to ascertain their views thereon. The article therefore requires States (*a*) to provide information to the public regarding the activity and the risk and the harm it involves; and (*b*) to ascertain the views of the public. It is, of course, clear that the purpose of providing information to the public is to allow its members to inform themselves and then to ascertain their views. Without that second step, the purpose of the article would be defeated.

(2) The content of the information to be provided to the public includes information about the activity itself as well as the nature and the scope of risk and harm that it entails. Such information is contained in the documents accompanying the notification which is effected in accordance with article 8 or in the assessment which may be carried out by the requesting State under article 11.

(3) This article is inspired by new trends in international law, in general, and environmental law, in particular, of seeking to involve, in the decision-making processes, individuals whose lives, health, property and environment might be affected by providing them with a chance to present their views and be heard by those responsible for making the ultimate decisions.

Annex 497

"Commentaries on the Draft principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities", Report of the International Law Commission Fifty-eighth session, Yearbook of the International Law Commission, A/CN.4/SER.A/2006/Add.l (Part 2), *International Law Commission,* 2006, pages 59-61, 72-83

A/CN.4/SER.A/2006/Add.1 (Part 2)

YEARBOOK OF THE INTERNATIONAL LAW COMMISSION

2006

Volume II
Part Two

Report of the Commission to the General Assembly on the work of its fifty-eighth session

UNITED NATIONS
New York and Geneva, 2013

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

References to the *Yearbook of the International Law Commission* are abbreviated to *Yearbook ...*, followed by the year (for example, *Yearbook ... 2006*).

The *Yearbook* for each session of the International Law Commission comprises two volumes:

Volume I: summary records of the meetings of the session;

Volume II (Part One): reports of special rapporteurs and other documents considered during the session;

Volume II (Part Two): report of the Commission to the General Assembly.

All references to these works and quotations from them relate to the final printed texts of the volumes of the *Yearbook* issued as United Nations publications.

A/CN.4/SER.A/2006/Add.l (Part 2)

UNITED NATIONS PUBLICATION

Sales No.: 12.V.13 (Part 2)
ISBN 978-92-1-133798-3
eISBN 978-92-1-055658-3

ISSN 0082-8289

5. In the event that the measures under the preceding paragraphs are insufficient to provide adequate compensation, the State of origin should also ensure that additional financial resources are made available.

Principle 5. Response measures

Upon the occurrence of an incident involving a hazardous activity which results or is likely to result in transboundary damage:

(*a*) the State of origin shall promptly notify all States affected or likely to be affected of the incident and the possible effects of the transboundary damage;

(*b*) the State of origin, with the appropriate involvement of the operator, shall ensure that appropriate response measures are taken and should, for this purpose, rely upon the best available scientific data and technology;

(*c*) the State of origin, as appropriate, should also consult with and seek the cooperation of all States affected or likely to be affected to mitigate the effects of transboundary damage and if possible eliminate them;

(*d*) the States affected or likely to be affected by the transboundary damage shall take all feasible measures to mitigate and if possible to eliminate the effects of such damage;

(*e*) the States concerned should, where appropriate, seek the assistance of competent international organizations and other States on mutually acceptable terms and conditions.

Principle 6. International and domestic remedies

1. States shall provide their domestic judicial and administrative bodies with the necessary jurisdiction and competence and ensure that these bodies have prompt, adequate and effective remedies available in the event of transboundary damage caused by hazardous activities located within their territory or otherwise under their jurisdiction or control.

2. Victims of transboundary damage should have access to remedies in the State of origin that are no less prompt, adequate and effective than those available to victims that suffer damage, from the same incident, within the territory of that State.

3. Paragraphs 1 and 2 are without prejudice to the right of the victims to seek remedies other than those available in the State of origin.

4. States may provide for recourse to international claims settlement procedures that are expeditious and involve minimal expenses.

5. States should guarantee appropriate access to information relevant for the pursuance of remedies, including claims for compensation.

Principle 7. Development of specific international regimes

1. Where, in respect of particular categories of hazardous activities, specific global, regional or bilateral agreements would provide effective arrangements concerning compensation, response measures and international and domestic remedies, all efforts should be made to conclude such specific agreements.

2. Such agreements should, as appropriate, include arrangements for industry and/or State funds to provide supplementary compensation in the event that the financial resources of the operator, including financial security measures, are insufficient to cover the damage suffered as a result of an incident. Any such funds may be designed to supplement or replace national industry-based funds.

Principle 8. Implementation

1. Each State should adopt the necessary legislative, regulatory and administrative measures to implement the present draft principles.

2. The present draft principles and the measures adopted to implement them shall be applied without any discrimination such as that based on nationality, domicile or residence.

3. States should cooperate with each other to implement the present draft principles.

2. Text of the draft principles and commentaries thereto

67. The text of the draft principles with commentaries thereto adopted by the Commission at its fifty-eighth session, are reproduced below.

DRAFT PRINCIPLES ON THE ALLOCATION OF LOSS IN THE CASE OF TRANSBOUNDARY HARM ARISING OUT OF HAZARDOUS ACTIVITIES

General commentary

(1) The background to these draft principles, together with the underlying approach, is outlined in the preamble. It places the draft principles in the context of the relevant provisions of the Rio Declaration on Environment and Development ("Rio Declaration")[301] but then specifically recalls the draft articles on the prevention of transboundary harm from hazardous activities, approved by the Commisison at its fifty-third session, in 2001.[302]

(2) It briefly provides the essential background that, even if the relevant State fully complies with its prevention obligations, under international law, accidents or other incidents may nonetheless occur and have transboundary consequences that cause harm and serious loss to other States and their nationals.

(3) It is important, as the preamble records, that those who suffer harm or loss as a result of such incidents involving hazardous activities are not left to carry those losses and are able to obtain prompt and adequate compensation. These draft principles establish the means by which this may be accomplished.

(4) As the preamble notes, the necessary arrangements for compensation may be provided under international agreements covering specific hazardous activities, and the draft principles encourage the development of such agreements at the international, regional or bilateral level as appropriate.

(5) The draft principles are therefore intended to contribute to the process of development of international law in this field, both by providing appropriate guidance to States in respect of hazardous activities not covered by specific agreements, and by indicating the matters that should be dealt with in such agreements.

(6) The preamble also makes the point that States are responsible under international law for infringement of their prevention obligations. The draft principles are

[301] *Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3–14 June 1992* (United Nations publication, Sales No. E.93.I.8 and corrigenda), vol. I: *Resolutions adopted by the Conference*, resolution 1, Annex I.

[302] See footnote 292 above.

therefore without prejudice to the rules relating to State responsibility and any claim that may lie under those rules in the event of a breach of the obligations of prevention.

(7) In preparing the draft principles, the Commission has proceeded on the basis of a number of basic understandings. In the first place, there is a general understanding that (*a*) the regime should be general and residual in character; and that (*b*) such a regime should be without prejudice to the relevant rules of State responsibility adopted by the Commission in 2001.[303] Secondly, there is an understanding that the scope of the liability aspects should be the same as the scope of the draft articles on prevention of transboundary harm from hazardous activities, which the Commission also adopted in 2001.[304] In particular, to trigger the regime governing transboundary damage, the same threshold, "significant", that is made applicable in the case of transboundary harm is employed. The Commission also carefully considered the desirability of examining the issues concerning global commons. After observing that the issues associated with that topic are different and had their own particular features, the Commission came to the conclusion that they require a separate treatment.[305] Thirdly, the work has proceeded on the basis of certain policy considerations: (*a*) that while the activities contemplated for coverage under the present topic are essential for economic development and beneficial to society, the regime must provide for prompt and adequate compensation for the innocent victims in the event that such activities give rise to transboundary damage; and (*b*) that contingency plans and response measures should be in place over and above those contemplated in the draft articles on prevention.

(8) Fourthly, the various existing models of liability and compensation have confirmed that State liability is accepted essentially in the case of outer space activities. Liability for activities falling within the scope of the present draft principles primarily attaches to the operator, and such liability would be without the requirement of proof of fault, and may be limited or subject to conditions, limitations and exceptions. However, it is equally recognized that such liability need not always be placed on the operator of a hazardous or a risk-bearing activity and other entities could equally be designated by agreement or by law. The important point is that the person or entity concerned is functionally in command or control or directs or exercises overall supervision and hence, as the beneficiary of the activity, may be held liable.

(9) Fifthly, it may be noted that provision is made for supplementary funding in many schemes of allocation of loss, and such funding in the present case would be particularly important if the concept of limited liability is adopted. The basic understanding is to adopt a scheme of allocation of loss, spreading the loss among multiple actors, including, as appropriate, the State. In view of the general and residual character, it is not considered necessary to predetermine the share for the different actors or to precisely identify the role to be assigned to the State. At the same time, it is recognized that the State has, under international law, duties of prevention, and these entail certain minimum standards of due diligence.[306] States are obliged, in accordance with such duties, to allow hazardous activities with a risk of significant transboundary harm only upon prior authorization, utilizing environmental and transboundary impact assessments and monitoring those impacts as appropriate. The attachment of primary liability on the operator, in other words, does not in any way absolve the State from discharging its own duties of prevention under international law.

(10) Sixthly, while there is broad understanding on the basic elements to be incorporated in the regime governing the scheme of allocation of loss in case of damage arising from hazardous activities, it is understood that in most cases the substantive or applicable law to resolve compensation claims may involve other aspects such as civil liability or criminal liability or both, and would depend on a number of variables. Principles of civil law, common law or private international law governing choice of forums as well as the applicable law may come into focus depending upon the context and the jurisdiction involved. Accordingly, the proposed scheme is not only general and residuary but is also flexible and without any prejudice to the claims that might arise or to questions of the applicable law and procedures.

(11) As the draft principles are general and residuary in character they are cast as a non-binding declaration of draft principles. The different characteristics of particular hazardous activities may require the adoption of different approaches with regard to specific arrangements. In addition, the choices or approaches adopted may vary under different legal systems. Further, the choices and approaches adopted and their implementation may also be influenced by different stages of economic development of the countries concerned.

(12) On balance, the Commission has concluded that recommended draft principles would have the advantage of not requiring a harmonization of national laws and legal systems, which is fraught with difficulties. Moreover, it is felt that the goal of widespread acceptance of the substantive provisions is more likely to be met if the outcome is cast as principles. In their essential parts, they provide that victims that suffer the damage should be compensated promptly and adequately, and that environmental damage, relating to which States may pursue claims, be mitigated through prompt response measures and, to the extent possible, be restored or reinstated.

(13) The commentaries are organized as containing an explanation of the scope and context of each draft principle, as well as an analysis of relevant trends and possible options available to assist States in the adoption

[303] For the text and commentaries of the articles on responsibility of States for internationally wrongful acts, *Yearbook ... 2001*, vol. II (Part Two) and corrigendum, para. 77.

[304] *Ibid*., para. 98.

[305] See *Yearbook … 2002*, vol. II (Part Two), para. 447.

[306] Birnie and Boyle have observed in respect of the draft articles on prevention that "there is ample authority in treaties, case law and state practice for regarding these provisions of the Commission's draft convention [on the prevention of transboundary harm] as codification of existing international law. They represent the minimum standard required of states when managing transboundary risks and giving effect to Principle 2 of the Rio Declaration" (P. W. Birnie and A. E. Boyle, *International Law and the Environment*, 2nd ed., Oxford University Press, 2002, p. 113).

of appropriate national measures of implementation and in the elaboration of specific international regimes. The focus of the Commission was on the formulation of the substance of the draft principles as a coherent set of standards of conduct and practice. It did not attempt to identify the current status of the various aspects of the draft principles in customary international law, and the way in which the draft principles are formulated is not intended to affect that question.

Preamble

The General Assembly,

***Reaffirming* Principles 13 and 16 of the Rio Declaration on Environment and Development,**

***Recalling* the draft articles on the prevention of transboundary harm from hazardous activities,**[307]

***Aware* that incidents involving hazardous activities may occur despite compliance by the relevant State with its obligations concerning prevention of transboundary harm from hazardous activities,**

***Noting* that as a result of such incidents other States and/or their nationals may suffer harm and serious loss,**

***Emphasizing* that appropriate and effective measures should be in place to ensure that those natural and legal persons, including States, that incur harm and loss as a result of such incidents are able to obtain prompt and adequate compensation,**

***Concerned* that prompt and effective response measures should be taken to minimize the harm and loss which may result from such incidents,**

***Noting* that States are responsible for infringements of their obligations of prevention under international law,**

***Recalling* the significance of existing international agreements covering specific categories of hazardous activities and stressing the importance of the conclusion of further such agreements,**

***Desiring* to contribute to the development of international law in this field,**

…

Commentary

(1) In the past, the Commission has generally presented to the General Assembly sets of draft articles without a draft preamble, leaving its elaboration to States. However, there have also been precedents during which the Commission has submitted a draft preamble. This was the case with respect to the draft convention on the elimination of future statelessness and the draft convention on the reduction of future statelessness,[308] and the draft articles on the nationality of natural persons in relation to the succession of States,[309] as well as with respect to the draft articles on prevention.[310] Since the Commission would be presenting a draft declaration of principles, a preamble is considered all the more pertinent.

(2) As noted in the introduction, the *first* preambular paragraph commences with a reference to Principles 13 and 16 of the Rio Declaration.[311] The need to develop national law regarding liability and compensation for the victims of pollution and other environmental damage is stressed in Principle 13 of that Declaration, which reiterates Principle 22 of the Declaration of the United Nations Conference on the Human Environment ("Stockholm Declaration").[312] Principle 16 of the Rio Declaration addresses the promotion of internalization of environmental costs, taking into account the "polluter pays" principle. The Commission considers the "polluter pays" principle as an essential component in underpinning the present draft principles to ensure that victims that suffer harm as a result of an incident involving a hazardous activity are able to obtain prompt and adequate compensation.

(3) The *second* preambular paragraph is self-explanatory. It links the present draft principles to the draft articles on prevention. The *third*, *fourth*, *fifth* and *sixth* preambular paragraphs seek to provide the essential rationale for the present draft principles.

(4) The *seventh* preambular paragraph stresses that these draft principles do not affect the responsibility that a State may incur as a result of infringement of its obligations of prevention under international law; it seeks to keep claims arising from implementation of that regime from the scope of application of these draft principles.

(5) The *eighth* preambular paragraph recognizes the existence of specific international agreements for various categories of hazardous activities and the importance of concluding further such agreements, while the *last* preambular paragraph captures the desire to contribute to the process of development of international law in this field.

Principle 1. Scope of application

The present draft principles apply to transboundary damage caused by hazardous activities not prohibited by international law.

Commentary

(1) The "scope of application" provision is drafted to contextualize the draft principles and to reflect the understanding that the present draft principles would have the same scope of application as the 2001 draft articles on

[307] *Yearbook … 2001*, vol. II (Part Two) and corrigendum, pp. 146 *et seq*., para. 97.

[308] *Yearbook … 1954*, vol. II, document A/2693, p. 140.

[309] *Yearbook … 1999*, vol. II (Part Two), document A/54/10, p. 20 *et seq*., para. 47.

[310] See footnote 292 above.

[311] See footnote 301 above.

[312] *Report of the United Nations Conference on the Human Environment, Stockholm, 5–16 June 1972* (United Nations publication, Sales No. E.73.II.A.14), part one, chap. I.

is generally in conformity with notions prevailing in civil law.[378] More generally, while no basic definition of "operator" has been developed, "recognition has been gained for the notion that by operator is meant one in actual, legal or economic control of the polluting activity".[379]

(33) The term "command" connotes an ability to use or control some instrumentality. Thus it may include the person making use of an aircraft at the time of the damage, or the owner of the aircraft if he retained the rights of navigation.[380] It should be clear, however, that the term "operator" would not include employees who work or are in control of the activity at the relevant time.[381] The term "control" denotes power or authority to manage, direct, regulate, administer or oversee.[382] This could cover the person to whom decisive power over the technical functioning of an activity has been delegated, including the holder of a permit or authorization for such an activity or the person registering or notifying such an activity.[383] It may also include a parent company or other related entity, whether corporate or not, particularly if that entity has actual control of the operation.[384] An operator may be a public or private entity. It is envisaged that a State could be an operator for purposes of the present definition.

(34) The phrase "at the time of the incident" is intended to establish a connection between the operator and the transboundary harm. The looser and less concrete the link between the incident in question and the property claimed to have been damaged, the less certain the right to get compensation.

[378] See E. Reid, "Liability for dangerous activities: a comparative analysis", *International and Comparative Law Quarterly*, vol. 48 (October 1999), pp. 731–756, at p. 755.

[379] M.-L. Larsson, *The Law of Environmental Damage: Liability and Reparation*, The Hague, Kluwer Law International, 1999, p. 401.

[380] See the Convention on damage caused by foreign aircraft to third parties on the surface (article 12).

[381] See article 2 (*c*) of Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty on Liability Arising From Environmental Emergencies: " 'operator' means any natural or juridical person, whether governmental or non-governmental, which organises activities to be carried out in the Antarctic Treaty area. An operator does not include a natural person who is an employee, contractor, subcontractor, or agent of, or who is in the service of, a natural or juridical person, whether governmental or non-governmental, which organises activities to be carried out in the Antarctic Treaty area, and does not include a juridical person that is a contractor or subcontractor acting on behalf of a State operator".

[382] The definition of "ship owner" in the International Convention on Civil Liability for Bunker Oil Pollution is broad. It includes "the registered owner, bareboat charterer, manager and operator of the ship" (art. 1, para. 3).

[383] See Directive 2004/35/CE of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage (footnote 316 above), article 2, para. 6.

[384] Under article 8 of the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA), the primary liability lies with the *operator*, which is defined in article 1, paragraph 11 as "a Party; or an agency or instrumentality of a Party; or a juridical person established under the law of a Party; or a joint venture consisting exclusively of any combination of the foregoing". Pursuant to section 16.1 of the Standard clauses for exploration contract annexed to the Regulations on the Prospecting and Exploration for Polymetallic Nodules in the Area adopted by the International Seabed Authority on 13 July 2000, the *contractor* is "liable for the actual amount of any damage, including damage to the marine environment, arising out of its wrongful acts or omissions, and those of its employees, subcontractors, agents and all persons engaged in working or acting for them" (ISBA/6/A/18, Annex 4, Clause 16).

Principle 3. Purposes

The purposes of the present draft principles are:

(*a*) to ensure prompt and adequate compensation to victims of transboundary damage; and

(*b*) to preserve and protect the environment in the event of transboundary damage, especially with respect to mitigation of damage to the environment and its restoration or reinstatement.

Commentary

(1) The two-fold purpose of the present draft principles is to ensure protection to victims suffering damage from transboundary harm and to preserve and protect the environment *per se* as common resource of the community.

(2) The purpose of ensuring protection to victims suffering damage from transboundary harm has been an essential element from the inception of the study of the topic by the Commission. In his schematic outline, Robert Q. Quentin-Baxter focused on the need to protect victims, which required "measures of prevention that as far as possible avoid a risk of loss or injury and, in so far as that is not possible, measures of reparation", so that "an innocent victim should not be left to bear his loss or injury".[385] The former consideration is already addressed by the draft articles on prevention.[386]

(3) The notion of prompt and adequate compensation in paragraph (*a*) reflects the understanding and the desire that victims of transboundary damage should not have to wait long in order to be compensated. The importance of ensuring prompt and adequate compensation to victims of transboundary damage has its underlying premise in the *Trail Smelter* arbitration[387] and the *Corfu Channel* case,[388] as further elaborated and encapsulated in principle 21 of the Stockholm Declaration, namely:

> States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.[389]

(4) The notion of liability and compensation for victims is also reflected in principle 22 of the Stockholm Declaration, wherein a common conviction is expressed that:

[385] *Yearbook ... 1982,* vol. II (Part One), document A/CN.4/360, p. 63, para. 53 (schematic outline, section 5, paras. 2–3).

[386] See footnote 292 above.

[387] "[U]nder the principles of international law, … no State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequences and the injury is established by clear and convincing evidence" (*Trail Smelter* (see footnote 226 above), p. 1965).

[388] In this case, the Court stated that it was "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States" (*Corfu Channel* (see footnote 197 above), at p. 22).

[389] See footnote 312 above.

States shall co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.[390]

(5) This is further addressed more broadly in principle 13 of the Rio Declaration:

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.[391]

While the principles in these Declarations are not intended to give rise to legally binding obligations, they demonstrate aspirations and preferences of the international community.[392]

(6) Paragraph (*b*) gives a prominent place to the protection and preservation of the environment and to the associated obligations to mitigate the damage and to restore or reinstate the same to its original condition to the extent possible. Thus, it emphasizes the more recent concern of the international community to recognize protection of the environment *per se* as a value by itself without having to be seen only in the context of damage to persons and property. It reflects the policy to preserve the environment as a valuable resource not only for the benefit of the present generation but also for future generations. In view of its novelty and the common interest in its protection, it is important to emphasize that damage to environment *per se* could constitute damage subject to prompt and adequate compensation, which includes reimbursement of reasonable costs of response and restoration or reinstatement measures undertaken.

(7) The aim is not to restore or return the environment to its original state but to enable it to maintain its permanent functions. In the process it is not expected that expenditures disproportionate to the results desired would be incurred and such costs should be reasonable. Where restoration or reinstatement of the environment is not possible, it is reasonable to introduce the equivalent of those components into the environment.[393]

(8) In general terms, as noted above in the commentary on the "Use of terms" with respect to subparagraphs (iii)–(v), the earlier reluctance to accept liability for damage to environment *per se*, without linking such damage to damage to persons or property[394] is gradually disappearing.[395] In the case of damage to natural resources or the environment, there is a right of compensation or reimbursement for costs incurred by way of reasonable preventive, restoration or reinstatement measures. This is further limited in the case of some conventions to measures *actually* undertaken, excluding loss of profit from the impairment of the environment.[396]

(9) The State or any other public agency which steps in to undertake response or restoration measures may recover the costs later for such operations from the operator. For example, such is the case under the United States Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The Statute establishes the Superfund with tax dollars to be replenished by the costs recovered from liable parties, to pay for clean-ups

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[390] *Idem.*

[391] See footnote 301 above.

[392] Birnie and Boyle note that "[t]hese principles all reflect more recent developments in international law and state practice; their present status as principles of general international law is more questionable, but the evidence of consensus support provided by the Rio Declaration is an important indication of their emerging legal significance" (Birnie and Boyle, *International Law ..., op. cit.* (footnote 306 above), at p. 105).

[393] For an analysis of the definition of "environment" and the compensable elements of damage to the environment, see the eleventh report on international liability for injurious consequences arising out of acts not prohibited by international law of the Special Rapporteur Julio Barboza (footnote 285 above), at p. 57, para. 28. For an interesting account of the problem of damage, definition of harm, damage, adverse effects and damage valuation, see M. A. Fitzmaurice, "International protection of the environment", *Collected Courses of the Hague Academy of International Law, 2001*, vol. 293 (2002), pp. 9 *et seq.*, at pp. 225–233.

[394] For contrasting results, see *Blue Circle Industries plc* v. *Ministry of Defence, The All England Law Reports 1998*, vol. 3, p. 385, and *Merlin and another* v. *British Nuclear Fuels plc, The All England Law Reports 1990*, vol. 3, p. 711.

[395] For difficulties involved in claims concerning ecological damage and prospects, see the *Patmos* and *Haven* cases. See generally A. Bianchi, "Harm to the environment in Italian practice: the interaction of international law and domestic law", in P. Wetterstein (ed.), *op. cit.* (footnote 323 above), p. 103, at 113–129. See also Maffei, *loc. cit.* (footnote 346 above), p. 381, at pp. 383–390; and D. Ong, "The relationship between environmental damage and pollution: marine oil pollution laws in Malaysia and Singapore", in M. Bowman and A. Boyle (eds.), *op. cit.* (footnote 333 above), p. 191, at 201–204. See also Sands, *op. cit.* (footnote 362 above), at pp. 918–922. See also the 1979 *Antonio Gramsci* incident and the 1987 *Antonio Gramsci* incident (IOPC Fund, *Report on the Activities of the International Oil Pollution Compensation Fund during 1980; ibid., Annual Report 1989*, p. 26; and *ibid., Annual Report 1990*, p. 27). See also, generally, W. Chao, *Pollution from the Carriage of Oil by Sea: Liability and Compensation*, London, Kluwer, 1996, pp. 361–366: the IOPC Fund resolution No. 3 of 17 October 1980 did not allow the court to assess compensation to be paid by the Fund "on the basis of an abstract quantification of damage calculated in accordance with theoretical models" (FUND/A/ES.1/13, Annex I). In the *Amoco Cadiz* case (see footnote 370 above), the Northern District Court of Illinois ordered Amoco Oil Corporation to pay $85.2 million in fines—$45 million for the costs of the spill and $39 million in interest. It denied compensation for non-economic damage. It thus dismissed claims concerning lost image and ecological damage. The Court noted: "it is true that the commune was unable for a time to provide clean beaches for the use of its citizens, and that it could not maintain the normal peace, quiet, and freedom from the dense traffic which would have been the normal condition of the commune absent the cleanup efforts", but concluded that the "loss of enjoyment claim by the communes is not a claim maintainable under French law" (Maffei, *loc. cit.* (footnote 346 above), p. 393). Concerning lost image, the Court observed that the plaintiffs' claim was compensable in measurable damage, to the extent that it could be demonstrated that this loss of image resulted in specific consequential harm to the *commune* by virtue of tourists and visitors who might otherwise have come staying away. Yet this is precisely the subject matter of the individual claims for damages by hotels, restaurants, campgrounds, and other businesses within the *communes*. As regards ecological damage, the Court dealt with problems of evaluating "the species killed in the intertidal zone by the oil spill" and observed that "this claimed damage is subject to the principle of *res nullius* and is not compensable for lack of standing of any person or entity to claim therefor" (*ibid.*, at pp. 393–394). See also *In the Matter of the People of Enewetak* (footnote 369 above), before the Marshall Islands Nuclear Claims Tribunal. The Tribunal had an opportunity to consider whether restoration was an appropriate remedy for loss incurred by the people of the Enewetak Atoll arising from nuclear tests conducted by the United States. It awarded clean-up and rehabilitation costs as follows: $22 million for soil removal; $15.5 million for potassium treatment; $31.5 million for soil disposal (causeway); $10 million for clean-up of plutonium; $4.51 million for surveys; and $17.7 million for soil rehabilitation and revegetation (pp. 1222–1223).

[396] See generally the commentary to draft principle 2 above.

if necessary. The United States Environmental Agency operates the Superfund and has the broad powers to investigate contamination, select appropriate remedial actions and either order liable parties to perform the clean-up or do the work itself and recover its costs.[397]

(10) In addition to the present purposes, the draft principles serve or imply the serving of other objectives, including: (*a*) providing incentives to the operator and other relevant persons or entities to prevent transboundary damage from hazardous activities; (*b*) resolving disputes among States concerning transboundary damage in a peaceful manner that promotes friendly relations among States; (*c*) preserving and promoting the viability of economic activities that are important to the welfare of States and peoples; and (*d*) providing compensation in a manner that is predictable, equitable, expeditious and cost-effective. Wherever possible, the draft principles should be interpreted and applied so as to further all these objectives.[398]

(11) In particular, the principle of ensuring "prompt and adequate" compensation by the operator should be perceived from the perspective of achieving "cost internalization", which constituted the core, in its origins, of the "polluter pays" principle. It is a principle that argues for internalizing the true economic costs of pollution control, clean-up and protection measures within the costs of the operation of the activity itself. It thus attempted to ensure that Governments did not distort the costs of international trade and investment by subsidizing these environmental costs. This policy was endorsed in the policy of OECD and the European Union. The contexts in which the principle was endorsed have envisaged their own variations in its implementation.

(12) In one sense, the "polluter pays" principle seeks to provide an incentive for the operator and other relevant persons or entities to prevent a hazardous activity from causing transboundary damage. The principle is referred to in a number of international instruments. It appears in very general terms as principle 16 of the Rio Declaration:

> National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.[399]

(13) In treaty practice, the principle has formed the basis for the construction of liability regimes on the basis of strict liability. This is the case with the Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment, which in the preamble has "regard to the desirability of providing for strict liability in this field taking into account the 'Polluter Pays' Principle". The Protocol on Civil Liability and Compensation for Damage caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters, in its preamble, refers to the "polluter pays" principle as "a general principle of international environmental law, accepted also by the parties to" the Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the Convention on the Transboundary Effects of Industrial Accidents.[400] National jurisdictions have also placed reliance on it as playing a remedial and compensatory function.[401]

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[397] For an analysis of CERCLA, see W. D. Brighton and D. F. Askman, "The role of the government trustees in recovering compensation for injury to natural resources", in P. Wetterstein (ed.), *op. cit.* (footnote 323 above), pp. 177–206, at pp. 183–184.

[398] See also Bergkamp, *op. cit.* (footnote 347 above), p. 70, footnote 19, who has identified seven functions relevant to a liability regime, namely compensation, distribution of losses, allocation of risks, punishment, corrective justice, vindication or satisfaction, and deterrence and prevention.

[399] See footnote 301 above.

[400] It also finds reference, for example, in the International Convention on oil pollution preparedness, response and cooperation; the Convention for the protection of the marine environment of the North-East Atlantic (OSPAR Convention); the Convention on the Protection of the Marine Environment of the Baltic Sea Area; the Convention on the protection of the Black Sea against pollution; the Convention on the Protection and Use of Transboundary Watercourses and International Lakes; the Convention on the Transboundary Effects of Industrial Accidents; the Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment; and Directive 2004/35/CE of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage (see footnote 316 above).

[401] In its report on the implementation of Agenda 21, the United Nations notes:

> "Progress has been made in incorporating the principles contained in the Rio Declaration … —including … the polluter pays principle …—in a variety of international and national legal instruments. While some progress has been made in implementing United Nations Conference on Environment and Development commitments through a variety of international legal instruments, much remains to be done to embody the Rio principles more firmly in law and practice."

(*Official Records of the General Assembly, Nineteenth Special Session, Supplement No. 2* (A/S-19/33), para. 14)

However, the "polluter pays" principle has been endorsed or is being endorsed in different national jurisdictions. The Supreme Court of India, in *Vellore Citizens' Welfare Forum* v. *Union of India and others* (see *All India Reporter, 1996*, vol. 83, p. 2715), noted that the precautionary principle, the "polluter pays" principle and the new burden of proof, supported by articles 21, 47, 48A, and 51A (*g*) of the Constitution of India, have become "part of the environmental law of the country" (Law Commission of India, *One Hundred Eighty Sixth Report on Proposal to Constitute Environmental Courts* (see footnote 373 above), p. 36). Access to justice, particularly in environmental matters, is an essential facet of article 21 of the Constitution of India. Australia and New Zealand already have environmental courts. Multiple provincial statutes of Canada regarding liability for environmental damage and subsequent remediation recognize the principle. In Spain, the courts have relied on the principle *cuius est commodum, eius est incommodum*—that is, the person who derives a benefit from an activity must also pay for resulting damage—to impose liability on persons for damage caused by mines, waste, damage as a result of loss of water, and toxic gas. In Japan, with regard to pollution caused by mining activities and marine pollution, the polluter pays to clean up the contamination to the commons and to restore the victim's property to its pre-damage state. The French legal system has endorsed in various forms the "polluter pays" principle. In *Époux Vullion* v. *Société immobilière Vernet-Saint Christophe et autres*, France's *Cour de cassation* held that "the owner's right to enjoy his property in the most absolute manner not prohibited by law or regulation is subject to his obligation not to cause damage to the property of anyone else which exceeds the normal incommodities of neighbourhood" (*Juris-Classeur périodique (La semaine juridique)*, 1971, II.16781. See the English translation by the Institute for Transnational Law of the School of Law of the University of Texas at Austin, available at www.utexas.edu/law/academics/centers/transnational). Sweden's Environmental Code of 1998, which came into force on 1 January 1999, makes the party who is liable for pollution to pay, to a reasonable extent, for investigations of possible pollution, clean-up and mitigation of damage. The test of reasonableness is determined with reference to (*a*) the length of time elapsed since the pollution occurred, (*b*) environmental risk involved and (*c*) the operator's contribution. Ireland enacted statutes to integrate, into domestic law, intentional treaties imposing strict liability for oil and hazardous waste spills by ships. Irish Courts have already begun to rely upon the "polluter pays" principle. In Brazil, strict liability is becoming a standard for damage caused by activities which are hazardous

(14) The principle has its limitations. It has thus been noted:

> The extent to which civil liability makes the polluter pay for environmental damage depends on a variety of factors. If liability is based on negligence, not only does this have to be proved, but harm which is neither reasonably foreseeable nor reasonably avoidable will not be compensated and the victim or the taxpayer, not the polluter, will bear the loss. Strict liability is a better approximation of the 'polluter pays' principle, but not if limited in amount, as in internationally agreed schemes involving oil tankers or nuclear installations. Moreover, a narrow definition of damage may exclude environmental losses which cannot be easily quantified in monetary terms, such as wildlife, or which affect the quality of the environment without causing actual physical damage.[402]

(15) Moreover, it has been asserted that the principle "cannot be treated as a rigid rule of universal application, nor are the means used to implement it going to be the same in all cases".[403] Thus, a "great deal of flexibility will be inevitable, taking full account of differences in the nature of the risk and the economic feasibility of full internalization of environmental costs in industries whose capacity to bear them will vary".[404] Some commentators doubt "whether [the 'polluter pays' principle] has achieved the status of a generally applicable rule of customary international law, except perhaps in relation to states in the [European Community], the UNECE, and the OECD".[405]

(16) The aspect of promptness and adequacy of compensation is related to the question of measurement of compensation. General international law does not specify "principles, criteria or methods for determining *a priori* how reparation is to be made for the injury caused by a wrongful act or omission".[406] Reparation under international law is a consequence of a breach of a primary obligation. The general obligation to make full reparation is restated in article 31 of the draft articles on responsibility of States for internationally wrongful acts.[407] The content of this obligation was detailed by the PCIJ in the *Chorzów Factory* case, when it stated *obiter dicta*:

> The essential principle contained in the actual notion of an illegal act—a principle which seems to be established by international practice and in particular by the decisions of arbitral tribunals—is that reparation must, as far as possible, wipe out all the consequences of the illegal act and reestablish the situation which would, in all probability, have existed if that act had not been committed. Restitution in kind, or, if this is not possible, payment of a sum corresponding to the value which a restitution in kind would bear; the award, if need be, of damages for loss sustained which is not covered by restitution in kind or payment in place of it—such are the principles which should serve to determine the amount of compensation due for an act contrary to international law.[408]

(17) The *Chorzów Factory* standard applies in respect of internationally wrongful acts, which are not covered by the present draft principles. It is useful, however, in appreciating the limits and the parallels that ought to be drawn in respect of activities covered by the present draft principles. There are questions about principles on the basis of which compensation could be awarded: Should compensation be awarded only in respect of the actual loss suffered by the victim to the extent it can be quantified? Or should compensation go beyond that and reflect the paying capacity of the operator? Two guiding principles seem relevant. The first is that damages awarded should not have a punitive function.[409] The second is

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or those that harm or have a risk of causing harm to the environment. Intent need not be proved. Under South Africa's National Environmental Management Act of 1998, strict liability is imposed on operators who may cause, have caused or are causing significant pollution or degradation of environmental harm. Singapore provides strict liability for criminal offences. It imposes obligations of clean-up on polluters without the need for any intentional or negligent behaviour. See also the survey, prepared by the Secretariat, of liability regimes relevant to the topic of international liability for injurious consequences arising out of acts not prohibited by international law (international liability in case of loss from transboundary harm arising out of hazardous activities), *Yearbook ... 2004*, vol. II (Part One), document A/CN.4/543, paras. 272–286.

[402] Birnie and Boyle, *International Law …*, *op. cit.* (footnote 306 above), pp. 93–94.

[403] *Ibid*., pp. 94–95. See also the survey prepared by the Secretariat of liability regimes (footnote 401 above), chapter II.

[404] P. W. Birnie and A. E. Boyle, *International Law ..., op. cit.* (footnote 306 above), p. 95. The authors noted that "reference to 'public interest' in Principle 16 [of the Rio Declaration] leaves ample room for exceptions … . As adopted at Rio, the 'polluter pays' principle is neither absolute nor obligatory" (p. 93). They also noted that in the case of East European nuclear installations, "Western European Governments, who represent one large group of potential victims … have funded the work needed to improve safety standards" (p. 94).

[405] Sands, *op. cit.* (footnote 362 above), p. 280, an illustration of the flexible way in which this principle is applied in the context of OECD and the European Union. Rüdiger Wolfrum, notes that "[a]lthough the International Convention on Oil Pollution Preparedness, Response and Co-operation, 1990 and the Convention on the Transboundary Effects of Industrial Accidents both refer in their Preambles to the polluter-pays principle as being a 'general principle of international environmental law', such view is not sustained in light of the United States' practice and also in light of the uncertainties about its scope and consequences" (R. Wolfrum, "International environmental law: purposes, principles and means of ensuring compliance", in F. L. Morrison and R. Wolfrum (eds.), *International, Regional, and National Environmental Law*, The Hague, Kluwer Law International, 2000, p. 19). See generally N. de Sadeleer, *Environmental Principles: from Political Slogans to Legal Rules*, Oxford University Press, 2002, pp. 21–60.

In the arbitration between France and the Netherlands, concerning the application of the 1976 Convention on the protection of the Rhine against pollution by chlorides and the 1991 Additional Protocol to the Convention on the protection of the Rhine against pollution by chlorides, the Arbitral Tribunal was requested to consider the "polluter pays" principle in its interpretation of the Convention, although it was not expressly referred to therein. The Tribunal in its 2004 award concluded that, despite its importance in treaty law, the "polluter pays" principle is not a part of general international law, and was therefore not pertinent to its interpretation of the Convention. The Tribunal, stated, in relevant part: "The Tribunal notes that the Netherlands has referred to the 'polluter pays' principle in support of its claim. … The Tribunal observes that this principle features in several international instruments, bilateral as well as multilateral, and that it operates at various levels of effectiveness. Without denying its importance in treaty law, the Tribunal does not view this principle as being a part of general international law" (*Case concerning the audit of accounts between the Netherlands and France in application of the Protocol of 25 September 1991 Additional to the Convention for the Protection of the Rhine from Pollution by Chlorides of 3 December 1976, Arbitral award of 12 March 2004*, UNRIAA, vol. XXV (Sales No. E/F.05.V.5), p. 312, paras. 102–103). The text of the award is also available at www.pca-cpa.org.

[406] F. V. García-Amador, L. B. Sohn and R. R. Baxter (eds.), *Recent Codification of the Law of State Responsibility for Injury to Aliens* (see footnote 280 above), p. 89. See also A. Boyle, "Reparation for environmental damage in international law: some preliminary problems", in Bowman and Boyle, *Environmental Damage … op. cit.* (footnote 333 above), pp. 17–26. See also the eleventh report on international liability for injurious consequences arising out of acts not prohibited by international law of the Special Rapporteur Julio Barboza (footnote 285 above).

[407] *Yearbook ... 2001*, vol. II (Part Two) and corrigendum, pp. 91–94 (art. 31 and its commentary).

[408] *Chorzów Factory* (see footnote 269 above), at p. 47.

[409] See B. Graefrath, "Responsibility and damages caused: relationship between responsibility and damages", *Recueil des cours: Collected courses of the Hague Academy of International Law, 1984-II*, vol. 185 (1985), pp. 9–150, at pp. 100–102. See also the draft articles on State responsibility for internationally wrongful acts, *Yearbook ... 2001*, vol. II (Part Two) and corrigendum, pp. 98–105 (article 36 and its commentary).

that the victim can only be compensated for the loss suffered but cannot expect to financially gain from the harm caused.[410] While keeping in view these two basic principles, the point can still be made that equity, as well as the "polluter pays" principle, demands that the operator should not be allowed to seek out safe havens to engage in risk-bearing hazardous activities without expecting to pay for damage caused, so as to provide an incentive to exert utmost care and due diligence to prevent damage in the first instance.[411]

(18) Some general principles concerning payment of compensation have evolved over a period of time and were endorsed by the ICJ and other international tribunals. These may be briefly noted:[412] (*a*) financially assessable damage, that is, damage quantifiable in monetary terms, is compensable; (*b*) this includes damage suffered by the State to its property or personnel or in respect of expenditures reasonably incurred to remedy or mitigate damage, as well as damage suffered by natural or legal persons, both nationals and those who are resident and suffered injury on its territory; (*c*) the particular circumstances of the case, the content of the obligation breached, the assessment of reasonableness of measures undertaken by parties in respect of the damage caused, and finally, consideration of equity and mutual accommodation. These factors will determine the terms or heads against which precise sums of compensation would be payable. Accordingly, the following guidelines on the basis of awards rendered by international courts and tribunals may be noted:[413] compensation is payable in respect of personal injury, for directly associated material loss such as loss of earnings and earning capacity, medical expenses including costs for achieving full rehabilitation; compensation is also payable for non-material damage suffered as, for example, for "loss of loved ones, pain and suffering as well as the affront to sensibilities associated with an intrusion on the person, home or private life".[414]

(19) In respect of damage to property, the loss is usually assessed against capital value, loss of profits and incidental expenses. In this context, different valuation techniques and concepts like assessment of "fair market value", "net book value", "liquidation or dissolution value" and "discounted cash flow" factoring elements of risk and probability have been used. On these and other issues associated with quantification of compensation there is ample material, particularly in the context of injury caused to aliens and their property through nationalization of their companies or property.[415]

(20) The principles developed in the context of disputes concerning foreign investment may not automatically be extended to apply to the issues of compensation in the field of transboundary damage. There may be difficult questions regarding claims eligible for compensation, such as economic loss, pain and suffering, permanent disability, loss of amenities or of consortium, and the evaluation of the injury. Similarly, damage to property which could be repaired or replaced could be compensated on the basis of the value of the repair or replacement. It is difficult to compensate damage caused to objects of historical or cultural value, except on the basis of arbitrary evaluation made on a case-by-case basis. Further, the looser and less concrete the link between the incident in question with the property claimed to have been damaged, the less certain the right to receive compensation. The commentary to draft principle 2 reveals the extent to which some of these problems have been overcome.

Principle 4. Prompt and adequate compensation

1. Each State should take all necessary measures to ensure that prompt and adequate compensation is available for victims of transboundary damage caused by hazardous activities located within its territory or otherwise under its jurisdiction or control.

2. These measures should include the imposition of liability on the operator or, where appropriate, other person or entity. Such liability should not require proof of fault. Any conditions, limitations or exceptions to such liability shall be consistent with draft principle 3.

3. These measures should also include the requirement on the operator or, where appropriate, other person or entity, to establish and maintain financial security such as insurance, bonds or other financial guarantees to cover claims of compensation.

4. In appropriate cases, these measures should include the requirement for the establishment of industry-wide funds at the national level.

5. In the event that the measures under the preceding paragraphs are insufficient to provide adequate compensation, the State of origin should also ensure that additional financial resources are made available.

Commentary

(1) This draft principle reflects an important role that is envisaged for the State of origin in fashioning a workable system for compliance with the principle of "prompt and adequate compensation". The reference to "[e]ach State" in the present context is to the State

[410] For the principles stated in the "*Lusitania*" case, UNRIAA, vol. VII, p. 32, and the *Chorzów Factory* case (see footnote 269 above) on the function of compensation, see *Yearbook ... 2001*, vol. II (Part Two) and corrigendum, pp. 98–105 (article 36 and its commentary).

[411] The Supreme Court of India in the *M. C. Mehta v. Union of India* (the Oleum gas leak case) stressed the point that the "larger and more prosperous the enterprise, the greater must be the amount of compensation payable by it for the harm caused on account of an accident in the carrying on of the hazardous or inherently dangerous activity by the enterprise" (Law Commission of India, *One Hundred Eighty Sixth Report on Proposal to Constitute Environmental Courts* (see footnote 373 above), p. 31).

[412] See the draft articles on State responsibility for internationally wrongful acts, *Yearbook ... 2001*, vol. II (Part Two) and corrigendum, pp. 98–105 (article 36 and its commentary and the cases cited therein).

[413] *Ibid.*

[414] *Ibid*., p. 101 (para. (16) of the commentary to article 36). See also V. S. Mishra, "Emerging right to compensation in Indian environmental law", *Delhi Law Review*, vol. 23 (2001), pp. 58–79.

[415] See R. D. Bishop, J. Crawford and W. M. Reisman, *Foreign Investment Disputes: Cases, Materials and Commentary*, The Hague, Kluwer Law International, 2005, pp. 1331–1372 (on methods for valuing losses). See also C. F. Amerasinghe, "Issues of compensation for the taking of alien property in the light of recent cases and practice", *International and Comparative Law Quarterly*, vol. 41 (1992), pp. 22–65.

of origin. The principle contains four interrelated elements: (*a*) the State should ensure prompt and adequate compensation and for this purpose should put in place an appropriate liability regime; (*b*) any such liability regime may place primary liability on the operator, and should not require the proof of fault; (*c*) any conditions, limitations or exceptions that may be placed on such liability should not defeat the purpose of the principle of prompt and adequate compensation; and (*d*) various forms of securities, insurance and industry-wide funding are the means to provide sufficient financial guarantees for compensation. The five paragraphs of draft principle 4 express these four elements.

(2) It should be recalled that the assumption under the present draft principles is that the State of origin would have performed fully all its obligations concerning prevention of transboundary harm from hazardous activities under international law. Without prejudice to other claims that may be made under international law, the responsibility of the State for damage in the context of present principles is therefore not contemplated.

(3) Thus paragraph 1 focuses on the principle that States should ensure payment of adequate and prompt compensation. The State itself is not necessarily obliged to pay such compensation. The principle, in its present form, responds to and reflects a growing demand and consensus in the international community: as part of arrangements for permitting hazardous activities within its jurisdiction and control, it is widely expected that States would make sure that adequate mechanisms are also available to respond to claims for compensation in case of any damage.

(4) The emphasis in paragraph 1 is on all "necessary measures" and each State is given sufficient flexibility to achieve the objective of ensuring prompt and adequate compensation. This is highlighted without prejudice to any *ex gratia* payments to be made or contingency and relief measures that States or other responsible entities may otherwise consider extending to the victims.

(5) As noted in the commentary concerning the "Purposes" of the present draft principles, the need to develop liability regimes in an international context has been recognized and finds expression, for example, in Principle 22 of the 1972 Stockholm Declaration and Principle 13 of the 1992 Rio Declaration.[416]

(6) The basic principle that a State should ensure payment of prompt and adequate compensation for hazardous activities could be traced back as early as the *Trail Smelter* arbitration,[417] a case in which clear and convincing evidence was available for the serious consequence and injury caused to property within one State by the iron ore smelter in another. Since then, numerous treaties, some important decisions and the extensive national law and practice which have evolved have given considerable weight to claims for compensation in respect of transfrontier pollution and damage. Some commentators regard this as a customary law obligation.[418]

(7) The standard of promptness and adequacy in paragraph 1 is a standard that also finds support in the *Trail Smelter* arbitration.[419] The notion of "promptness" refers to the procedures that would govern access to justice, and that would influence the time and duration for the rendering of decisions on compensation payable in a given case. This is also a necessary criterion to be emphasized in view of the fact that litigation in domestic courts involving claims of compensation could be costly and protracted over several years, as it was in the *Amoco Cadiz* case, which took 13 years.[420] To render access to justice more widespread, efficient and prompt, suggestions have been

[416] See above, footnotes 312 and 301, respectively. See also the Malmö Ministerial Declaration, adopted by the Governing Council of UNEP at its sixth special session, *Official Records of the General Assembly, Fifty-fifth Session, Supplement No. 25* (A/55/25), Annex I, decision SS.VI/1 of 31 May 2000; the Programme for the Development and Periodic Review of Environmental Law for the First Decade of the Twenty-First Century (Montevideo Programme III), adopted by the UNEP Governing Council at its twenty-first special session, UNEP-E-GC21, decision 21/23 of 9 February 2001; and the Plan of Implementation of the World Summit on Sustainable Development, A/CONF.199/20, resolution 2 of 4 September 2002, Annex.

[417] See footnote 226 above.

[418] For a mention of different sources as a basis for arriving at this conclusion, see P.-T. Stoll, "Transboundary pollution", in Morrison and Wolfrum (eds.), *op. cit.* (footnote 405 above), pp. 169–200, at pp. 169–174. Stoll notes:

> "It must be recalled, however, that the prohibition principle is based on sovereign right of states to their territory. There is no evidence that it is necessary to refer to a specific entitlement based on a single component in raising a complaint about transboundary pollution. One can thus conclude that the prohibition of transboundary pollution is based on the state interest in the environmental integrity of its territory. Treaty law reflects this notion. … Sovereignty, while creating a right to the environmental integrity of a territory or area at one hand, at the other hand is the very basis of states' responsibility for the pollution which originates within their territory" (*ibid.*, pp. 174–175)

In addition, it is also suggested that principles of abuse of rights and good neighbourhood have provided a basis for the prohibition against transboundary harm. See J. G. Lammers, "Centre for Studies and Research (1985). The present state of research carried out by the English-speaking Section of the Centre for Studies and Research", *Transfrontier Pollution and International Law*, The Hague, Kluwer Law International, 1986, p. 89–133, at p. 100.

[419] See footnote 226 above. See also Principle 10 of the Rio Declaration (footnote 301 above); article 235, paragraph 2 of the United Nations Convention on the Law of the Sea; article 2, paragraph 1 of the 1996 Helsinki articles on international watercourses (K. W. Cuperus and A. E. Boyle, "Articles on private law remedies for transboundary damage in international watercourses", in International Law Association, *Report of the Sixty-seventh Conference, Helsinki, 12–17 August 1996*, London, 1996, pp. 403 *et seq.*) and human rights law precedents. See also A. E. Boyle, "Globalising environmental liability: the interplay of national and international law", *Journal of Environmental Law*, vol. 17, No. 1 (2005), pp. 3–26, at p. 18.

[420] See footnote 370 above. See also E. Fontaine, "The French experience: '*Tanio*' and '*Amoco Cadiz*' incidents compared", in C. M. de la Rue (ed.), *Liability for Damage to the Marine Environment*, London, Lloyd's of London Press, 1993, pp. 101–108, at p. 105. Similarly, in the case of the Bhopal gas tragedy, it was stated that by the time the case first reached the Supreme Court of India on the issue whether interim relief assessed against Union Carbide on behalf of victims was appropriate, litigation had been underway in India for more than five years without even reaching the commencement of pretrial discovery, see K. F. McCallion and H. R. Sharma, "International resolution of environmental disputes and the Bhopal catastrophe", in The International Bureau of the Permanent Court of Arbitration (ed.), *International Investments and Protection of the Environment*, The Hague, Kluwer Law International, 2001, pp. 239–270, at p. 249. It is also stated that *Trail Smelter* arbitration took about 14 years to adjudicate upon the claims of private parties. See P. McNamara, *The Availability of Civil Remedies to Protect Persons and Property from Transfrontier Pollution Injury*, Frankfurt, Alfred Metzner Verlag, 1981, p. 70.

made to establish special national or international environmental courts.[421]

(8) On the other hand, the notion of "adequacy" of compensation refers to any number of issues.[422] For example, a lump sum amount of compensation agreed upon as a result of negotiations between the operator or the State of origin and the victims or other concerned States following the consolidation of claims of all the victims of harm may be regarded as adequate compensation. So would compensation awarded by a court as a result of the litigation entertained in its jurisdiction, subject to confirmation by superior courts wherever necessary. It is *ipso facto* adequate as long as the due process requirements are met. As long as compensation given is not arbitrary and grossly disproportionate to the damage actually suffered, even if it is less than full, it can be regarded as adequate. In other words, adequacy is not intended to denote "sufficiency".

(9) The phrase "its territory or otherwise under its jurisdiction or control" has the same meaning as the terms used in paragraph 1 (*a*) of article 6 of the draft articles on prevention.[423]

(10) Paragraph 2 spells out the first important measure that may be taken by each State, namely the imposition of liability on the operator or, where appropriate, other person or entity. The draft principles envisage the definition of "operator" in functional terms, based on the factual determination as to who has the use, control and direction of the object at the relevant time. It is worth stressing that liability in case of significant damage is generally channelled[424] to the operator of the installation. There are, however, other possibilities that exist. In the case of ships, it is channelled to the owner, not the operator. This means that charterers—who may be the actual operators—are not liable under the 1992 Protocol to amend the International Convention on Civil Liability for Oil Pollution Damage. In other cases, liability is channelled through more than one entity. Under the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal, waste generators, exporters, importers and disposers are all potentially liable at different stages in the transit of waste. The real underlying principle is not that "operators" are always liable, but that the party with the most effective control of the risk at the time of the accident or with the ability to provide compensation is made primarily liable.

(11) Operator's liability has gained ground for several reasons and principally on the belief that one who created high risks seeking economic benefit must bear the burden of any adverse consequences of controlling the activity.[425] The imposition of the primary liability on the operator is widely accepted in international treaty regimes and in national law and practice.[426]

(12) The second sentence of paragraph 2 provides that such liability should not require proof of fault. Various designations are used to describe contemporary doctrine imposing strict liability, among them: "liability without fault" (*responsabilité sans faute*); "negligence without fault" (*négligence sans faute*), "presumed responsibility" (*responsabilité présumée*), "fault *per se*" (*négligence objective*), "objective liability" (*responsabilité objective*) or "risk liability" (*responsabilité pour risque créé*).[427] The phrase "[s]uch liability should not require proof of fault" seeks to capture this broad spectrum of designations.

(13) Hazardous and ultrahazardous activities, the subject of the present draft principles, involve complex operations and carry with them certain inherent risks of causing significant harm. In such matters, it is widely recognized that it would be unjust and inappropriate to make the claimant shoulder a heavy burden of proof of fault or negligence in respect of highly complex technological activities whose risks and operation the concerned industry closely guards as secret. Strict liability is recognized in many jurisdictions when assigning liability for inherently dangerous or hazardous activities.[428] The case for strict liability for ultrahazardous or abnormally dangerous activities was held to be the most appropriate technique, both under common and civil law, to enable victims of dangerous and ultrahazardous activities to recover compensation without having to establish proof of fault on the basis of what is often detailed

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[421] See A. Rest, "Need for an international court for the environment? Underdeveloped legal protection for the individual in transnational litigation", *Environmental Policy and Law*, vol. 24, No. 4 (June 1994), pp. 173–187. For the view that the establishment of an international environmental court may not be a proper answer to the "need to enhance the rule of law through access to justice and the representation of community interests", see E. Hey, "Reflections on an international environmental court", in The International Bureau of the Permanent Court of Arbitration (ed.), *International Investments ... op. cit.* (footnote 420 above), pp. 271–301, at p. 299–300. At the national level, the Law Commission of India made a very persuasive case for the establishment of national environmental courts in India (see Law Commission of India, *One Hundred Eighty Sixth Report on Proposal to Constitute Environmental Courts* (footnote 373 above)). Australia and New Zealand already have environmental courts. Available at: http://lawcommissionofindia.nic.in/reports.htm.

[422] For an exhaustive enumeration of the implementation of the principle of prompt, adequate and effective compensation in practice, see Lefeber, *op. cit.* (footnote 330 above), pp. 229–312.

[423] *Yearbook ... 2001*, vol. II (Part Two) and corrigendum, p. 156. See also draft article 1 and the commentary thereto, especially paragraphs (7)–(12) (*ibid.*, pp. 149–151).

[424] According to Goldie, the nuclear liability conventions initiated the new trend of channelling liability back to the operator "no matter how long the chain of causation, nor how novel the intervening factors (other than a very limited number of exculpatory ones)" (L. F. E. Goldie, "Concepts of strict and absolute liability and the ranking of liability in terms of relative exposure to risk", *Netherlands Yearbook of International Law*, vol. 16 (see footnote 319 above), p. 196). On this point see also L. F. E. Goldie, "Liability for damage and the progressive development of international law", *The International and Comparative Law Quarterly*, vol. 14 (1965), pp. 1189 *et seq.*, at pp. 1215–1218.

[425] For an interesting account of economic, political and strategic factors influencing the choices made in channelling liability, see G. Doeker and T. Gehring, "Private or international liability for transnational environmental damage—the precedent of conventional liability regimes", *Journal of Environmental Law*, vol. 2, No. 1 (1990), pp. 1–16, at p. 7.

[426] See the survey prepared by the Secretariat of liability regimes (footnote 401 above), paras. 340–386.

[427] See F. F. Stone, "Liability for damage caused by things", in A. Tunc (ed.), *International Encyclopedia of Comparative Law*, vol. XI (Torts), part I, The Hague, Martinus Nijhoff, 1983, chapter 5, p. 3, paragraph 1.

[428] See the survey prepared by the Secretariat of liability regimes (footnote 401 above), paras. 29–260. The Supreme Court of India, in *M. C. Mehta v. Union of India* (see footnote 411 above), held that in the case of hazardous activities, exceptions which could be pleaded to avoid absolute or strict liability, like that the damage is not foreseeable, and that the use involved is a natural one, are not available.

technical evidence,[429] which, in turn, would require on the part of victims a complete understanding of the complicated and complex operation or activity. The case for strict liability is strengthened when the risk has been introduced unilaterally by the defendant.[430]

(14) In the case of damage arising from hazardous activities, it is fair to designate strict liability of the operator at the international level.[431] Strict liability has been adopted as the basis of liability in several instruments, and among the recently negotiated instruments it is provided for in article 4 of the Protocol on Civil Liability and Compensation for Damage caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters, article 4 of the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal and article 8 of the Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment.

(15) In the case of activities which are not dangerous but still carry the risk of causing significant harm, there perhaps is a better case for liability to be linked to fault or negligence. In addition, since profits associated with the risky activity provide a motivation for industry in undertaking such activity, strict liability regimes are generally assumed to provide incentives for better management of the risk involved. However, this is an assumption which may not always hold up. As these activities have been accepted only because of their social utility and indispensability for economic growth, States may consider at the opportune time reviewing their indispensability by exploring more environmentally sound alternatives which are also less hazardous.

(16) Strict liability may alleviate the burden that victims may otherwise have in proving fault of the operator, but it does not eliminate the difficulties involved in establishing the necessary causal connection of the damage to the source of the activity. The principle of causation is linked to questions of foreseeability and proximity or direct loss. Courts in different jurisdictions have applied the principles and notions of proximate cause, adequate causation, foreseeability and remoteness of the damage. This is a highly discretionary and unpredictable branch of law. Different jurisdictions have applied these concepts with different results. It may be mentioned that the test of proximity seems to have been gradually eased in modern tort law. Developments have moved from strict *condicio sine qua non* theory over the foreseeability ("adequacy") test to a less stringent causation test requiring only the "reasonable imputation" of damage. Further, the foreseeability test could become less and less important with the progress being made in the fields of medicine, biology, biochemistry, statistics and other relevant fields. Given these reasons, such tests have not been included in a more general analytical model on loss allocation.[432]

(17) The point worth bearing in mind is that in transforming the concept of strict liability from a domestic, national context—where it is well-established but with all the differences associated with its invocation and application in different jurisdictions—into an international standard, its elements should be carefully defined, while keeping its basic objective in view, that is, to make the person liable without any proof of fault for having created a risk by engaging in a dangerous or hazardous activity. Such a definition is necessary not only to capture the most positive elements of the concept of strict liability as they are obtained in different jurisdictions, making the international standard widely acceptable, but would also ensure the standard adopted truly serves the cause of the victims exposed to dangerous activities, thus facilitating prompt and effective remedies.

(18) This task can be approached in different ways.[433] For example, it could be done by adopting a proper definition of damage as has been done in the case of the "Use of terms", which defines "damage" as damage to person, property and the environment. It could also be done by designating strict liability as the standard for invoking liability, while also specifying that it is meant to include all damage foreseeable in its most generalized form and that knowledge of the extent of the potential danger is not a prerequisite of liability. Further, it may be clarified as part of the application of the rule that it is sufficient if the use posed a risk of harm to the others and, accordingly, that it is not open to the operator to plead exemption from liability on the ground that the use involved is a natural one.

(19) The third sentence of paragraph 2 recognizes that it is part of the practice for States borne out in domestic and treaty practice to subject liability to certain conditions, limitations or exceptions. However, it must be ensured that such conditions, limitations or exceptions do not fundamentally alter the purpose of providing for prompt and adequate compensation. The point has thus been emphasized that any such conditions, limitations or exceptions shall be consistent with the purposes of the present draft principles.

(20) It is common to associate the concept of strict liability with the concept of limited liability. Limited liability has several policy objectives. It is justified as a matter of convenience to encourage the operator to continue to be engaged in such a hazardous but socially and economically beneficial activity. Strict liability is also aimed at securing reasonable insurance coverage for the activity.

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[429] See Reid, *loc. cit.* (footnote 378 above), p. 756. See also the survey prepared by the Secretariat of liability regimes (footnote 401 above), para. 23.

[430] See the survey prepared by the Secretariat of liability regimes, *ibid*.

[431] The Commission's Working Group on international liability for injurious consequences arising out of activities not prohibited by international law exhibited hesitation in 1996 in designating damage arising from all activities covered within the scope of the draft principles subject to the regime of strict liability. It may be recalled that the Commission noted that the concepts of strict and absolute liability which "are familiar in the domestic law in many States and in relation to certain [that is, ultrahazardous] activities in international law … have not been fully developed in international law, in respect to a large group of activities such as those covered by article 1" (*Yearbook ... 1996*, vol. II (Part Two), Annex I, p. 128 (para. (1) of the general commentary to chapter III). In arriving at this conclusion, the Working Group had the benefit of the survey prepared by the Secretariat of liability regimes relevant to the topic of international liability for injurious consequences arising out of acts not prohibited by international law (see footnote 284 above).

[432] See Wetterstein, "A proprietary or possessory interest …", *loc. cit.* (footnote 323 above), at p. 40.

[433] See the observations of Reid, *loc. cit.* (footnote 378 above), pp. 741–743.

Further, if liability has to be strict, that is, if liability has to be established without a strict burden of proof for the claimants, limited liability may be regarded as a reasonable *quid pro quo*. Although none of the propositions are self-evident truths, they are widely regarded as relevant.[434]

(21) It is arguable that a scheme of limited liability is unsatisfactory, as it is not capable of providing sufficient incentive to the operator to take stricter measures of prevention. If the limits are set too low, it could even become a licence to pollute or cause injury to others and externalize the real costs of the operator. Secondly, it may not be able to meet all the legitimate demands and claims of innocent victims for reparation in case of injury. For this reason, it is important to set limits of financial liability at a sufficiently high level, keeping in view the magnitude of the risk of the activity and the reasonable possibility for insurance to cover a significant portion of the risk involved.

(22) Article 9 of the Protocol on Civil Liability and Compensation for Damage caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters and article 12 of the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal provide for strict but limited liability. In contrast, article 6, paragraph 1 and article 7, paragraph 1 of the Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment provide for strict liability without any provision for limiting liability. Where limits are imposed on the financial liability of operator, generally such limits do not affect any interest or costs awarded by the competent court. Moreover, limits of liability are subject to review on a regular basis.

(23) Financial limits are well known in the case of regimes governing oil pollution at sea and nuclear incidents. For example, under the 1992 Protocol to amend the International Convention on Civil Liability for Oil Pollution Damage, the shipowner's maximum limit of liability is 59.7 million Special Drawing Rights (SDRs) (art. 6); thereafter the IOPC is liable to compensate for further damage up to a total of 135 million SDRs (including the amounts received from the owner), or in the case of damage resulting from natural phenomena, 200 million SDRs.[435] Similarly, the Protocol to amend the Vienna Convention on civil liability for nuclear damage also prescribed appropriate limits for an operator's liability.[436]

(24) Most liability regimes exclude limited liability in case of fault. The operator is made liable for the damage caused or contributed to by his or her wrongful intentional, reckless or negligent acts or omissions. Specific provisions to this extent are available for example in article 5 of the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal and article 5 of the Protocol on Civil Liability and Compensation for Damage caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters. In the case of operations involving highly complicated chemical or industrial processes or technology, fault liability could pose a serious burden of proof for the victims. Their rights could nevertheless be better safeguarded in several ways. For example, the burden of proof could be reversed, requiring the operator to prove that no negligence or intentional wrongful conduct was involved. Liberal inferences may be drawn from the inherently dangerous activity. Statutory obligations could be imposed upon the operator to give access to the victims or the public to the information concerning the operations.

(25) One advantage of a strict but limited liability from the perspective of the victim is that the person concerned need not prove negligence and would also know precisely whom to sue. In cases where harm is caused by more than one activity and could not reasonably be traced to any one of them or cannot be separated with a sufficient degree of certainty, jurisdictions have tended to make provision for joint and several liability.[437] Existing international instruments also provide for that kind of liability.[438]

(26) If, however, the person who has suffered damage has by his or her own fault caused the damage or

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[434] See R. R. Churchill, "Facilitating (transnational) civil liability litigation for environmental damage by means of treaties: progress, problems, and prospects", *Yearbook of International Environmental Law*, vol. 12 (2001), pp. 3–41, at pp. 35–37.

[435] See article V, paragraph 1 of the 1969 International Convention on Civil Liability for Oil Pollution Damage as amended by the 1992 Protocol, article 4 of the International Convention on the establishment of an international fund for compensation for oil pollution damage, and article 6 of the Protocol of 1992 to amend the International Convention on the establishment of an international fund for compensation for oil pollution damage. Following the sinking of the *Erika* off the French coast in December 1999, the maximum limit was raised to 89.77 million SDRs, effective 1 November 2003. Under the 2000 amendments to the Protocol of 1992 to amend the International Convention on the establishment of an international fund for compensation for oil pollution damage, that would enter into force in November 2003, the amounts were raised from 135 million SDRs to 203 million SDRs. If three States contributing to the Fund receive more than 600 million tons of oil per annum, the maximum amount is raised to 300,740,000 SDRs, from 200 million SDRs. See also Sands, *op. cit.* (footnote 362 above), pp. 915–917.

[436] The installation State is required to assure that the operator is liable for any one incident for not less than 300 million SDRs or for a transition period of 10 years, a transitional amount of 150 million SDRs is to be assured, in addition by the installation State itself. The Convention on Supplementary Compensation for Nuclear Damage provides an additional sum, which may exceed $1 billion (see articles III and IV).

[437] On joint and several liability, see Bergkamp, *op. cit.* (footnote 347 above), pp. 298–306.

[438] For examples of treaty practice, see for example article IV of the International Convention on Civil Liability for Oil Pollution Damage; article 4 of the 1992 Protocol to amend the International Convention on Civil Liability for Oil Pollution Damage; article 8 of the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS Convention); article 5 of the International Convention on Civil Liability for Bunker Oil Pollution Damage; article 4 of the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal; article 4 of the Protocol on Civil Liability and Compensation for Damage caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters; and article 11 of the Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment. See also article VII of the Convention on the Liability of Operators of Nuclear Ships; article 2 of the Protocol to amend the Vienna Convention on civil liability for nuclear damage; article II of the Vienna Convention on civil liability for nuclear damage; article 3 of the Convention on third party liability in the field of nuclear energy; and article 3 of the Protocol to amend the Convention on Third Party Liability in the field of Nuclear Energy of 29 July 1960, as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November 1982.

contributed to it, compensation may be denied or reduced having regard to all the circumstances.

(27) It is also usual for liability regimes and domestic law providing for strict liability to specify a limited set of fairly uniform exceptions to the liability of the operator. A typical illustration of the exceptions to liability can be found in articles 8 and 9 of the Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment, article 3 of the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal or article 4 of the Protocol on Civil Liability and Compensation for Damage caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters. Liability is excepted if, despite taking all appropriate measures, the damage was (*a*) the result of an act of armed conflict, hostilities, civil war or insurrection; (*b*) the result of a natural phenomenon of exceptional, inevitable, unforeseeable and irresistible character; (*c*) wholly the result of compliance with a compulsory measure of a public authority in the State of injury; or (*d*) wholly the result of the wrongful intentional conduct of a third party.[439]

(28) Paragraph 3 provides that the "measures" envisaged under paragraph 1 should include imposition of a requirement on the operator or, where appropriate, other person or entity, to establish and maintain financial security such as insurance, bonds or other financial guarantees to cover claims of compensation. The objective here is to ensure that the operator has sufficient funds at his disposal to enable him to meet claims of compensation, in the event of an accident or incident. It is understood that availability of insurance and other financial securities for hazardous operations depends upon many factors and mostly on the ability of the operator to identify the "risk" involved as precisely as possible. The assessment of "risk" for this purpose should not only consider the risk inherent in the activity to cause damage but also the statistical probability of the type and number of claims to which such damage might give rise as well as the number of claimants that may be involved.

(29) In the case of activities with a risk of causing significant transboundary harm, the insurance coverage would have to provide for the "foreign loss event" in addition to the "domestic loss event". The modern dynamics of law governing causation multiplies the factors that the operator in the first instance—and the insurers ultimately—would have to take into account while assessing the "risk" that needed to be covered. In this connection, the liberal tests that are invoked to establish a causal link, widening the reach of the tests of "proximate cause" and "foreseeability" and even replacing the same with a broader "general capability" test, are at issue.[440]

(30) Despite these difficulties, it is encouraging that insurance coverage is increasingly being made available for damage to persons, property or the environment due to oil spills and other hazardous activities.[441] This is mainly because of the growing recognition on the part of the industry, consumers and Governments that the products and services that the hazardous industry is able to provide are worthy of protection in the public interest. In order to maintain these products and services, the losses that such activities generate must be widely allocated and shared. Insurance and financial institutions are indispensable actors in any such scheme of allocation. These are institutions with expertise to manage risk and their profitability lies in pooling financial resources and wisely investing in risk-bearing activities.[442] However, it is inevitable that premiums for insurance coverage of the hazardous activities will grow in direct proportion to the range and magnitude of the risk that is sought to be covered. The increase in the premium costs is also directly related to the growing trend to designate an operator's liability as strict. Further, the trend to raise the limits of liability to

[439] Under paragraphs 2 and 3 of article III of the International Convention on Civil Liability for Oil Pollution Damage as amended by the 1992 Protocol, *war, hostilities, civil war, insurrection or natural phenomena of an exceptional, inevitable and irresistible character* are elements providing exoneration from liability for the owner, independently of negligence on the part of the claimant. See also article III of the International Convention on Civil Liability for Oil Pollution Damage; article 3 of the International Convention on Civil Liability for Bunker Oil Pollution Damage; and article 7 of the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS Convention). Article 3 of the International Convention on Civil Liability for Oil Pollution Damage resulting from the Exploration for and Exploitation of Seabed Mineral Resources provides similar language in respect of the *operator of an installation*. See also article 3 of the Convention on Civil Liability for Damage caused during Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD).

Exemptions are also referred to in article 6 of the Protocol to amend the Vienna Convention on civil liability for nuclear damage: under this Convention, no liability shall attach to an operator if he proves that the nuclear damage is directly due to an act of armed conflict, civil war or insurrection. See also article IV, paragraph 3 of the Vienna Convention on civil liability for nuclear damage; article 9 of Protocol to amend the Convention on Third Party Liability in the field of Nuclear Energy of 29 July 1960, as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November 1982; article 3, paragraph 5 of the annex to the Convention on Supplementary Compensation for Nuclear Damage; and article 4, paragraph 1 of Directive 2004/35/CE of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage (footnote 316 above). The Directive also does not apply to activities whose main purpose is to serve national defence or international security. In accordance with article 4, paragraph 6, it also does not apply to activities whose sole purpose is to protect from natural disasters. Terrorist acts are included in the most recent liability instrument: article 8, paragraph 1 of Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty on Liability Arising From Environmental Emergencies provides that "[a]n operator shall not be liable pursuant to Article 6 if it proves that the environmental emergency was caused by: (*a*) an act or omission necessary to protect human life or safety; (*b*) an event constituting in the circumstances of Antarctica a natural disaster of an exceptional character, which could not have been reasonably foreseen, either generally or in the particular case, provided all reasonable preventative measures have been taken that are designed to reduce the risk of environmental emergencies and their potential adverse impact; (*c*) an act of terrorism; or (*d*) an act of belligerency against the activities of the operator". For examples of domestic law, see the survey prepared by the Secretariat of liability regimes (footnote 401 above), paras. 434–476.

[440] H.-D. Sellschopp, "Multiple tort feasors/combined polluter theories, causality and assumption of proof/statistical proof, technical insurance aspects" in Kröner (ed.), *op. cit.* (footnote 356 above), pp. 51–57, at pp. 52–53.

[441] See Ch. S. Donovan and E. M. Miller, "Limited insurability of unlimited liability: serial claims, aggregates and alternatives: the American view", in Kröner (ed.), *op. cit.* (footnote 356 above), pp. 129–158; and W. Pfennigstorf, "Limited insurability of unlimited liability: serial claims, aggregates and alternatives: the Continental view", *ibid*., pp. 159–165.

[442] See A. J. E. Fitzsimmons, "Non-marine environmental liability: the use of insurance pools and the European dimension", *ibid*., pp. 166–173, at pp. 166–167.

higher and higher levels, even if the operator's liability is capped, is also a factor in the rising costs of premiums.

(31) The State concerned may establish minimum limits for financial securities for such purposes, taking into consideration the availability of capital resources through banks or other financial agencies. Even insurance schemes may require a certain minimum financial solvency from the operator to extend their coverage. Under most of the liability schemes, the operator is obliged to obtain insurance and such other suitable financial securities.[443] This may be particularly necessary to take advantage of the limited financial liability scheme, where it is available. However, in view of the diversity of legal systems and differences in economic conditions, some flexibility for States in requiring and arranging suitable financial and security guarantees may be envisaged.[444] An effective insurance system may also require wide participation by potentially interested States.[445]

(32) The importance of such mechanisms cannot be overemphasized. It has been noted that "financial assurance is beneficial for all stakeholders: for public authorities and the public in general, it is one of the most effective, if not the only, way of ensuring that restoration actually takes place in line with the polluter-pays principle; for industry operators, it provides a way of spreading risks and managing uncertainties; for the insurance industry, it is a sizeable market".[446] Such insurance coverage should also be available for clean-up costs.[447]

(33) Insurance coverage is available in some jurisdictions, such as Europe and the United States. The experience gained in such markets can be quickly transferred to other markets as the insurance industry is increasingly global. Article 14 of Directive 2004/35/CE of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage,[448] for example, provides that member States shall take measures to encourage the development of security instruments and markets by the appropriate security, economic and financial operators, including financial mechanisms in case of insolvency, with the aim of enabling operators to use financial guarantees to cover their responsibilities under the Directive.

(34) One of the consequences of ensuring the availability of insurance and financial security is that a claim for compensation may be allowed as one option under domestic law directly against any person providing financial security coverage. However, such a person may be given the right to require the operator to be joined in the proceedings. Such a person is also entitled to invoke the defences to which the operator would otherwise be entitled under the law. Article 11, paragraph 3 of the Protocol on Civil Liability and Compensation for Damage caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters and article 14, paragraph 4 of the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal provide for such possibilities. However, both Protocols allow States to make a declaration, if they wish, not allowing for such direct action.

(35) Paragraphs 4 and 5 refer to the other equally important measures that the State should focus upon. This is about establishing supplementary funds at the national level. Of course, this does not preclude the assumption of these responsibilities at a subordinate level of government in the case of a State with a federal system. Available schemes of allocation of loss envisage some sort of supplementary funding to meet claims of compensation in case the funds at the disposal of the operator are not adequate to compensate victims. Most liability regimes concerning dangerous activities provide for additional funding sources to meet the claims of damage, and particularly to meet the costs of response and restoration measures that are essential to contain the damage and restore value to affected natural resources and public amenities.

(36) Additional sources of funding could be created out of different accounts. One account could be out of public funds, as part of the national budget. In other words, the State could share in the allocation of loss created by the damage, as has happened in the case of the nuclear energy operations. Another account could be a common pool of funds created by contributions either from operators of the same category of dangerous activities or from entities for whose direct benefit the dangerous or hazardous activity is carried out. This is the case with management of risks associated with transport of oil by sea. However, in the case of hazardous activities which are very special, supplementary funds may have to be developed through some form of taxation on consumers of the products and services the industry generates and supports. This may be particularly necessary if the pool of operators and directly interested consumers is very small and not connected by any common economic or strategic interest.

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[443] For treaty practice, see, for example, article III of the Convention on the Liability of Operators of Nuclear Ships; article 7 of the Protocol to amend the Vienna Convention on civil liability for nuclear damage; article VII of the Vienna Convention on civil liability for nuclear damage; article 10 of the Convention on third party liability in the field of nuclear energy; and article 10 of the Protocol to amend the Convention on Third Party Liability in the field of Nuclear Energy of 29 July 1960, as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November 1982. See also article V of the International Convention on Civil Liability for Oil Pollution Damage as amended by the 1992 Protocol; article 12 of the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS Convention); article 7 of the International Convention on Civil Liability for Bunker Oil Pollution Damage; article 14 of the Basel Protocol on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and their Disposal; article 11 of the Protocol on Civil Liability and Compensation for Damage caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters; and article 12 of the Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment.

[444] See, for example, the statement by China, *Official Records of the General Assembly, Fifty-eighth Session, Sixth Committee, 19th meeting* (A/C.6/58/SR.19), para. 43.

[445] See, for example, the statement by Italy, *ibid., 17th meeting* (A/C.6/58/SR.17), para. 28.

[446] Proposal for a directive of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage, of 23 January 2002 (COM (2002) 17 final).

[447] *Ibid.*

[448] See footnote 316 above.

(37) Paragraph 4 deals with industry funding and provides that in appropriate cases, these measures should include the requirement for the establishment of industry funds at the national level. The words "these measures" reflects the fact that the State has the option of achieving the objective of setting up of industry-wide funding in a variety of ways, depending upon the particular circumstances.

(38) Paragraph 5 provides that in the event the measures mentioned in the preceding paragraphs are insufficient to provide adequate compensation, the State of origin should also ensure that additional financial resources are made available. While it does not directly require the State of origin to set up government funds to guarantee prompt and adequate compensation, it provides that the State of origin should ensure that sufficient financial resources are available in case of damage arising from a hazardous operation situated within its territory or in areas under its jurisdiction.

(39) Paragraphs 3, 4 and 5 are framed as guidelines to encourage States to adopt best practices. The freedom of States to choose one option or the other in accordance with its particular circumstances and conditions is the central theme of the present draft principle. This will, however, require vigilance on the part of the State of origin to continuously review its domestic law to ensure that its regulations are kept up to date with the development of technology and industry practices at home and elsewhere.

Principle 5. Response measures

Upon the occurrence of an incident involving a hazardous activity which results or is likely to result in transboundary damage:

(*a*) the State of origin shall promptly notify all States affected or likely to be affected of the incident and the possible effects of the transboundary damage;

(*b*) the State of origin, with the appropriate involvement of the operator, shall ensure that appropriate response measures are taken and should, for this purpose, rely upon the best available scientific data and technology;

(*c*) the State of origin, as appropriate, should also consult with and seek the cooperation of all States affected or likely to be affected to mitigate the effects of transboundary damage and if possible eliminate them;

(*d*) the States affected or likely to be affected by the transboundary damage shall take all feasible measures to mitigate and if possible to eliminate the effects of such damage;

(*e*) the States concerned should, where appropriate, seek the assistance of competent international organizations and other States on mutually acceptable terms and conditions.

Commentary

(1) Draft principle 5 deals with the situation arising after the occurrence of transboundary damage from both legal and practical perspectives. As soon as an incident involving a hazardous activity results or is likely to result in transboundary damage, with or without simultaneous damage within the territory of the State of origin, the State of origin is called upon to do several things. First, it is expected to obtain from the operator the full facts available about the incident, and most importantly about the dangers the damage poses to the population, their property and the environment in the immediate vicinity. Second, it is expected to ensure that appropriate measures are taken within the means and contingency preparedness at its disposal to mitigate the effects of damage and if possible to eliminate them. Such response measures should include not only clean-up and restoration measures within the jurisdiction of the State of origin but also extend to contain the geographical range of the damage to prevent it from becoming transboundary damage, if it has already not become so. Third, the State of origin is duty-bound to inform all States affected or likely to be affected. The notification must contain all necessary information about the nature of the damage, its likely effects on persons, property and the environment, and the possible precautions that need to be taken to protect them from its ill-effects or to contain, mitigate or eliminate the damage altogether.

(2) Paragraph (*a*), which deals with prompt notification, is an obligation of due diligence imposed upon the State of origin.[449] The notification obligation has to be performed as soon as is practicable. It shall contain all relevant information that is available to the State of origin. In some instances it may not be immediately possible for the State of origin to ascertain the full set of relevant facts and to gather information about the nature of damage and remedial action that can and should be taken.

(3) Paragraph (*b*) requires the State to take appropriate response measures and provides that it should rely upon the best available means and technology. The State of origin is expected to perform due diligence both at the stage of authorization of hazardous activities[450] and in

[449] See Ph. N. Okowa, "Procedural obligations in international environmental agreements", BYBIL, *1996*, vol. 67 (1997), pp. 275–336, at p. 330, where it is observed that the existence in general international law of the duty to warn States at risk in emergency situations has received the "endorsement of the International Court in the *Corfu Channel* case and in the *Nicaragua case*". It is a duty that is the subject of the 1986 Convention on early notification of a nuclear accident, which "confirms an established position at customary law" (*ibid.*, at p. 332).

[450] Closely associated with the duty of prior authorization is the duty to conduct an environmental impact statement (EIA). See Xue, *op. cit.* (footnote 323 above), at p. 166. Phoebe Okowa notes at least five types of ancillary duties associated with the obligation to conduct an EIA. One of them is that the nature of the activity as well as its likely consequences must be clearly articulated and communicated to the States likely to be affected. However, she notes that with the exception of a few conventions, it is widely provided that the State proposing the activity is the sole determinant of the likelihood or seriousness of adverse impact. None of the treaties under consideration permit third States to propose additional or different assessments if they are dissatisfied with those put forward by the State of origin. See Okowa, *loc. cit.* (footnote 449 above), at pp. 282–285, and on the content of an EIA, *ibid.*, at p. 282, footnote 25, and p. 286.

Annex 498

"Draft Guidelines on the Protection of the Atmosphere with Commentaries", A/76/10, *International Law Commission,* 2021, pages 35-38

Draft guidelines on the protection of the atmosphere, with commentaries

2021

Adopted by the International Law Commission at its seventy-second session, in 2021, and submitted to the General Assembly as a part of the Commission's report covering the work of that session (A/76/10). The report, which also contains commentaries to the draft articles (para. 40), will appear in *Yearbook of the International Law Commission, 2021*, vol. II, Part Two.

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(10) The reference to "prudence and caution" is inspired by the language of the International Tribunal for the Law of the Sea in the *Southern Blue Fin Tuna Case*,[116] the *MOX Plant Case*,[117] and the *Case concerning Land Reclamation by Singapore in and around the Straits of Johor*.[118] The Tribunal stated in the *Land Reclamation* case: "*Considering* that, given the possible implications of land reclamation on the marine environment, prudence and caution require that Malaysia and Singapore establish mechanisms for exchanging information and assessing the risks or effects of land reclamation works and devising ways to deal with them in the areas concerned." The draft guideline is cast in hortatory language, aimed at encouraging the development of rules to govern such activities, within the regimes competent in the various fields relevant to atmospheric pollution and atmospheric degradation.

(11) The phrase "including those relating to environmental impact assessment" at the end of the draft guideline adds emphasis, to acknowledge the importance of an environmental impact assessment, as reflected in draft guideline 4. Activities aimed at intentional large-scale modification of the atmosphere should be conducted with full disclosure and in a transparent manner, and an environmental impact assessment provided for in draft guideline 4 may be required for that purpose. It is considered that a project involving intentional large-scale modification of the atmosphere may cause significant adverse impact, in which case an assessment is necessary for such an activity.

Guideline 8
International cooperation

1. States have the obligation to cooperate, as appropriate, with each other and with relevant international organizations for the protection of the atmosphere from atmospheric pollution and atmospheric degradation.

2. States should cooperate in further enhancing scientific and technical knowledge relating to the causes and impacts of atmospheric pollution and atmospheric degradation. Cooperation could include exchange of information and joint monitoring.

Commentary

(1) International cooperation is at the core of the whole set of the present draft guidelines. The concept of international cooperation has undergone a significant change in international law,[119] and today is to a large extent built on the notion of common interests of the international community as a whole.[120] In this connection, it is recalled that the third

[116] *Southern Blue Fin Tuna Cases (New Zealand v. Japan; Australia v. Japan)*, Provisional Measures, Order of 27 August 1999, *ITLOS Reports 1999*, p. 280, at para. 77. The Tribunal stated that "*[c]onsidering* that, in the view of the Tribunal, the parties should in the circumstances act with prudence and caution to ensure that effective conservation measures are taken to prevent serious harm to the stock of southern bluefin tuna".

[117] *MOX Plant (Ireland v. United Kingdom)*, Provisional Measures, Order of 3 December 2001, *ITLOS Reports 2001*, p. 95, at para. 84 ("*[c]onsidering* that, in the view of the Tribunal, prudence and caution require that Ireland and the United Kingdom cooperate in exchanging information concerning risks or effects of the operation of the MOX plant and in devising ways to deal with them, as appropriate").

[118] *Case concerning Land Reclamation by Singapore in and around the Straits of Johor (Malaysia v. Singapore)*, Provisional Measures, Order of 8 October 2003, *ITLOS Reports 2003*, p. 10, at para. 99.

[119] W. Friedmann, *The Changing Structure of International Law* (London, Stevens & Sons, 1964), pp. 60–71; C. Leben, "The changing structure of international law revisited by way of introduction", *European Journal of International Law*, vol. 3 (1997), pp. 399–408. See also, J. Delbrück, "The international obligation to cooperate – an empty shell or a hard law principle of international law? – a critical look at a much debated paradigm of modern international law", H.P. Hestermeyer *et al.*, eds., *Coexistence, Cooperation and Solidarity* (Liber Amicorum Rüdiger Wolfrum), vol. 1 (Leiden, Martinus Njihoff, 2012), pp. 3–16.

[120] B. Simma, "From bilateralism to community interests in international law", *Collected Courses of The Hague Academy of International Law, 1994-VI*, vol. 250, pp. 217–384; Naoya Okuwaki, "On compliance with the obligation to cooperate: new developments of 'international law for

preambular paragraph of the present draft guidelines considers that atmospheric pollution and atmospheric degradation are a common concern of humankind.

(2) Paragraph 1 of the present draft guideline provides the obligation of States to cooperate, as appropriate. In concrete terms, such cooperation is with other States and with relevant international organizations. The phrase "as appropriate" denotes a certain flexibility for States in carrying out the obligation to cooperate depending on the nature and subject matter required for cooperation, and on the applicable rules of international law. The forms in which such cooperation may occur may also vary depending on the situation and allow for the exercise of a certain margin of appreciation of States in accordance with the applicable rules of international law. It may be at the bilateral, regional or multilateral levels. States may also individually take appropriate action.

(3) In the *Pulp Mills* case, the International Court of Justice emphasized linkages attendant to the obligation to cooperate between the parties and the obligation of prevention. The Court noted that, "it is by cooperating that the States concerned can jointly manage the risks of damage to the environment … so as to prevent the damage in question".[121]

(4) International cooperation is found in several multilateral instruments relevant to the protection of the environment. Both the Stockholm Declaration and the Rio Declaration, in principle 24 and principle 27, respectively, stress the importance of cooperation, entailing good faith and a spirit of partnership.[122] In addition, among some of the existing treaties, the Vienna Convention for the Protection of the Ozone Layer provides, in its preamble, that the Parties to this Convention are "[*a*]*ware* that measures to protect the ozone layer from modifications due to human activities require international co-operation and action". Furthermore, the preamble of the United Nations Framework Convention on Climate Change acknowledges that "the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response …", while reaffirming "the principle of sovereignty of States in international cooperation to address climate change".[123] Under article 7 of the Paris Agreement, parties "recognize the importance and support and international cooperation on adaptation efforts and the importance of taking into account the needs of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate

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cooperation'", in J. Eto, ed., *Aspects of International Law Studies* (Festschrift for Shinya Murase), (Tokyo, Shinzansha, 2015), pp. 5–46, at pp. 16–17 (in Japanese).

[121] *Pulp Mills on the River Uruguay* (see footnote 79 above), p. 49, para. 77.

[122] Principle 24 of the Stockholm Declaration states:

> "International matters concerning the protection and improvement of the environment should be handled in a cooperative spirit by all countries, big or small, on an equal footing. Cooperation through multilateral or bilateral arrangements or other appropriate means is essential to effectively control, prevent, reduce and eliminate adverse environmental effects resulting from activities conducted in all spheres, in such a way that due account is taken of the sovereignty and interests of all States."

Report of the United Nations Conference on the Human Environment, Stockholm, 5–16 June 1972 (see footnote 11 above).

Principle 27 of the Rio Declaration states:

> "States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development."

Report of the United Nations Conference on the Human Environment, Rio de Janeiro, 3–14 June 1992, vol. I: *Resolutions adopted by the Conference* (United Nations publication, Sales No. E.93.I.8 and corrigenda), resolution 1, annex I, chap. I.

[123] See also section 2 of Part XII of the United Nations Convention on the Law of the Sea, which provides for "Global and Regional Cooperation", setting out "Cooperation on a global or regional basis" (art. 197), "Notification of imminent or actual damage" (art. 198), "Contingency plans against pollution" (art. 199), "Studies, research programmes and exchange of information and data" (art. 200) and "Scientific criteria for regulations" (art. 201). Section 2 of Part XIII on Marine Scientific Research of the United Nations Convention on the Law of the Sea provides for "International Cooperation", setting out "Promotion of international cooperation" (art. 242), "Creation of favourable conditions" (art. 243) and "Publication and dissemination of information and knowledge" (art. 244).

change".[124] The preamble of the Paris Agreement in turn affirms the importance of education, training, public awareness, public participation, public access to information and cooperation at all levels on the matters addressed in the Agreement.[125]

(5) In its work, the Commission has also recognized the importance of cooperation.[126] Cooperation could take a variety of forms. Paragraph 2 of the draft guideline stresses, in particular, the importance of cooperation in enhancing scientific and technical knowledge relating to the causes and impacts of atmospheric pollution and atmospheric degradation. Paragraph 2 also highlights the exchange of information and joint monitoring.

(6) The Vienna Convention for the Protection of the Ozone Layer provides, in its preamble, that international cooperation and action should be "based on relevant scientific and technical considerations", and in article 4, paragraph 1, on cooperation in the legal, scientific and technical fields, there is provision that:

> The Parties shall facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information relevant to this Convention as further elaborated in annex II. Such information shall be supplied to bodies agreed upon by the Parties.

Annex II to the Convention gives a detailed set of items for information exchange. Article 4, paragraph 2, provides for cooperation in the technical fields, taking into account the needs of developing countries.

(7) Article 4, paragraph 1, of the United Nations Framework Convention on Climate Change, regarding commitments, provides that:

> All Parties … shall (e) cooperate in preparing for adaptation to the impacts of climate change; … (g) promote and cooperate in scientific, technological, technical, socio-economic and other research, systematic observation and development of data archives related to the climate system and intended to further the understanding and to reduce or eliminate the remaining uncertainties regarding the causes, effects, magnitude and timing of climate change and the economic and social consequences of various response strategies; (h) promote and cooperate in the full, open and prompt exchange of relevant scientific, technological, technical, socio-economic and legal information related to the climate system and climate change, and to the economic and social consequences of various response strategies; (i) promote and cooperate in

[124] See art. 7, para. 6. See also arts. 6, para. 1, 7, para. 7, 8, para. 4, and 14, para. 3.

[125] Preamble, fourteenth para. See also paragraph 1 of article 8 of the Convention on the Law of the Non-navigational Uses of International Watercourses, on the general obligation to cooperate, which provides that:

> "[W]atercourse States shall cooperate on the basis of sovereign equality, territorial integrity and mutual benefit in order to attain optimal utilization and adequate protection of an international watercourse."

[126] The articles on prevention of transboundary harm from hazardous activities (2001) provide in article 4, on cooperation, that:

> "States concerned shall cooperate in good faith and, as necessary, seek the assistance of one or more competent international organizations in preventing significant transboundary harm or at any event in minimizing the risk thereof."

Further, the articles on the law of transboundary aquifers (2008) provide in article 7, entitled "General obligation to cooperate", that:

> "1. Aquifer States shall cooperate on the basis of sovereign equality, territorial integrity, sustainable development, mutual benefit and good faith in order to attain equitable and reasonable utilization and appropriate protection of their transboundary aquifers or aquifer systems.
>
> 2. For the purpose of paragraph 1, aquifer States should establish joint mechanisms of cooperation."

Moreover, the draft articles on the protection of persons in the event of disasters (2016) provide, in draft article 7, a duty to cooperate. Draft article 7 provides that:

> "In the application of the present draft articles, States shall, as appropriate, cooperate among themselves, with the United Nations, with the components of the Red Cross and Red Crescent Movement, and with other assisting actors."

education, training and public awareness related to climate change and encourage the widest participation in this process, including that of non-governmental organizations.

(8) In this context, the obligation to cooperate includes, *inter alia* and as appropriate, exchange of information. In this respect, it may also be noted that article 9 of the Convention on the Law of the Non-navigational Uses of International Watercourses has a detailed set of provisions on exchange of data and information. Moreover, the Convention on Long-Range Transboundary Air Pollution provides in article 4 that the Contracting Parties "shall exchange information on and review their policies, scientific activities and technical measures aimed at combating, as far as possible, the discharge of air pollutants which may have adverse effects, thereby contributing to the reduction of air pollution including long-range transboundary air pollution". The Convention also has detailed provisions on cooperation in the fields of research and development (art. 7); exchange of information (art. 8); and implementation and further development of the cooperative programme for the monitoring and evaluation of the long-range transmission of air pollutants in Europe (art. 9). Similarly, at the regional level, the Eastern Africa Regional Framework Agreement on Air Pollution (Nairobi Agreement, 2008) [127] and the West and Central Africa Regional Framework Agreement on Air Pollution (Abidjan Agreement, 2009) [128] have identical provisions on international cooperation. The parties agree to:

1.2 Consider the synergies and co-benefits of taking joint measures against the emission of air pollutants and greenhouse gases;

…

1.4 Promote the exchange of educational and research information on air quality management;

1.5 Promote regional cooperation to strengthen the regulatory institutions.

(9) In its work, the Commission has also recognized the importance of scientific and technical knowledge.[129] In the context of protecting the atmosphere, enhancing scientific and technical knowledge relating to the causes and impacts of atmospheric pollution and atmospheric degradation is key. For addressing the adverse effects of climate change, the Paris Agreement recognizes the importance of averting, minimizing and addressing loss and damage associated with the adverse effects of climate change and envisages cooperation in such areas as (*a*) early warning systems; (*b*) emergency preparedness; (*c*) slow onset events; (*d*) events that may involve irreversible and permanent loss and damage; (*e*) comprehensive risk assessment and management; (*f*) risk insurance facilities, climate risk pooling and other insurance solutions; (*g*) non-economic losses; and (*h*) resilience of communities, livelihoods and ecosystems.[130]

[127] Available at https://web.archive.org/web/20111226174901/http:/www.unep.org/urban_environment/PDFs/EABAQ2008-AirPollutionAgreement.pdf.

[128] Available at https://web.archive.org/web/20111224143143/http://www.unep.org/urban_environment/PDFs/BAQ09_AgreementEn.Pdf.

[129] The second sentence of article 17, paragraph 4, of the articles on the law of transboundary aquifers provides that: "Cooperation may include coordination of international emergency actions and communications, making available emergency response personnel, emergency response equipment and supplies, scientific and technical expertise and humanitarian assistance". In turn, the draft articles on the protection of persons in the event of disaster, provides in draft article 9, that "[f]or the purposes of the present draft articles, cooperation includes humanitarian assistance, coordination of international relief actions and communications, and making available relief personnel, equipment and goods, and scientific, medical and technical resources". Further, draft article 10 (Cooperation for risk reduction) provides that "[c]ooperation shall extend to the taking of measures intended to reduce the risk of disasters".

[130] Art. 8.

Annex 499

"Natural Hazards, UnNatural Disasters: The Economics of Effective Prevention", *The World Bank,* 2010, pages 10-22

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Natural HAZARDS, *UnNatural* DISASTERS

The Economics of Effective Prevention



Natural Hazards, UnNatural Disasters

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1 2 3 4 13 12 11 10

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ISBN: 978-0-8213-8050-5
eISBN: 978-0-8213-8141-0
DOI: 10.1596/978-0-8213-8050-5

Library of Congress Cataloging-in-Publication Data

Natural hazards, unnatural disasters : the economics of effective prevention / The World Bank and The United Nations.
p. cm.
Includes bibliographical references and index.
ISBN 978-0-8213-8050-5 — ISBN 978-0-8213-8141-0 (electronic)
1. Disasters—Economic aspects. 2. Natural disasters—Economic aspects.
3. Emergency management. I. World Bank. II. United Nations.
HC79.D45N416 2011
363.34'7—dc22

2010031475

Cover art: The cover art is based on a Madhubani painting depicting the destruction caused by the 2004 tsunami. This piece was created by Amrita Das, a female artist from Madhubani District, Bihar, India, and is part of a private art collection.

For centuries, women from the Mithila region of Bihar have passed down through generations the tradition of floor and wall painting. This art form is linked historically with disasters. It became popular after a severe drought hit the region between 1966 and 1968. The Indian government, in an attempt to help develop sources of income other than agriculture, encouraged local women to paint on paper (rather than on floors and walls) to allow their artwork to be sold. This art form is now recognized internationally.

Cover design: Serif Design Group

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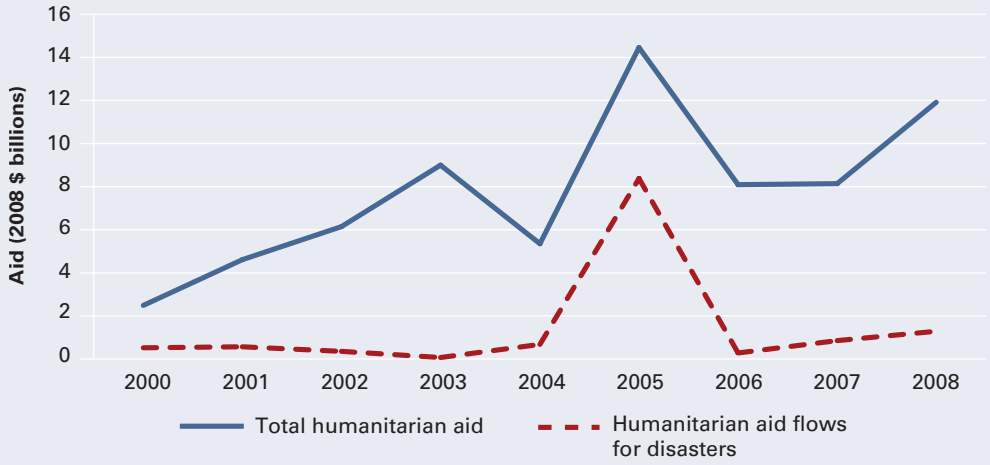
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Figure 6 Disasters receive about a fifth of total humanitarian assistance



Note: Humanitarian aid is "an intervention to help people who are victims of a natural disaster or conflict meet their basic needs and rights," while official development assistance (ODA) is "money spent on development (education, health, water supply and sanitation, agriculture, and so on) and humanitarian assistance by members of the OECD Development Assistance Committee."
Source: World Bank staff based on data from the Financial Tracking System (FTS) of the UN Office for the Coordination of Humanitarian Affairs.

reduce issues arising from the Samaritan's dilemma: the inability to deny help following a disaster to those who have not taken sufficient prevention measures.

In addition to these policy implications, readers may find much of interest and use in the report, summarized in the rest of this overview.

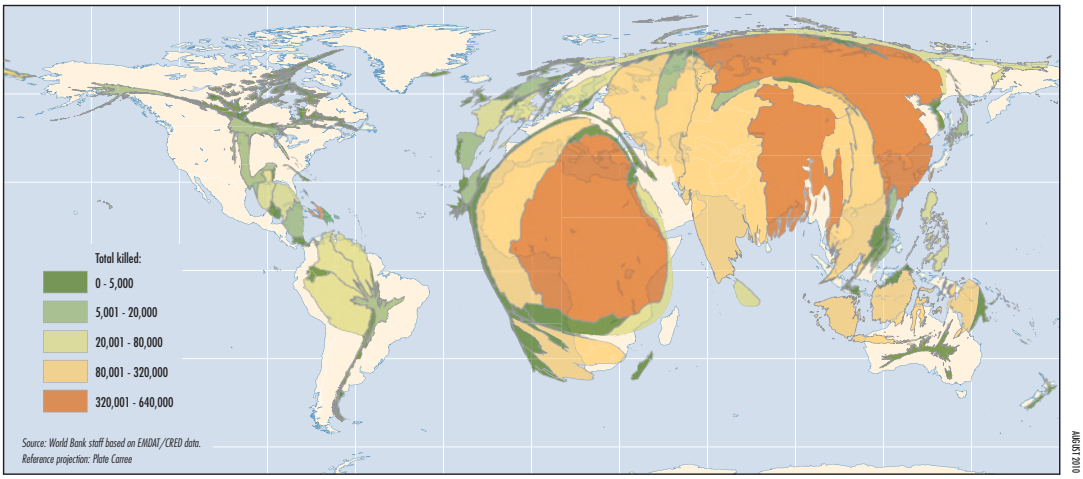
Disaster data patterns revisited

There have been 3.3 million deaths from natural hazards since 1970, or about 82,500 a year, with large year-to-year fluctuations and no pronounced time trends. Droughts are the deadliest of the four hazard categories (earthquakes, floods, and storms are the others) and poor countries suffer disproportionately—almost 1 million people died in Africa's droughts alone. Poor countries withstand the worst of disaster deaths (map 1).

Despite the avoidable deaths, the absence of a pronounced upward trend suggests the picture is less bleak than it first appears: exposure is rising rapidly (such as poor countries' population, both total and urban) yet deaths would trend down if scaled by the relevant population. So, there has been some effective prevention.

Data on property damage are less comprehensive than those on deaths, but damage from all hazards between 1970 and 2008 totaled $2,300 billion (in 2008 dollars), or 0.23 percent of cumulative world output. Damages fluctuate with a modest but discernable upward trend even when adjusted

Map 1 Deaths shrink Asia and the Americas—but expand Africa



Note: Areas reflect cumulative deaths from disasters for 1970 to 2010 (February).
Source: World Bank staff based on EM-DAT/CRED.

for inflation. They vary by hazards, with earthquakes and storms causing the most damage. And they are disproportionately high in middle-income countries. Again, the data suggest some effective prevention: if damages are scaled by GDP (globally or by country), they generally trend down.

Even when scaled by output, poor countries with few assets incur little damage, and rich countries (with more capital) effectively prevent damage. Middle-income countries incur the greatest proportional damage (map 2), suggesting why absolute damage has been rising.

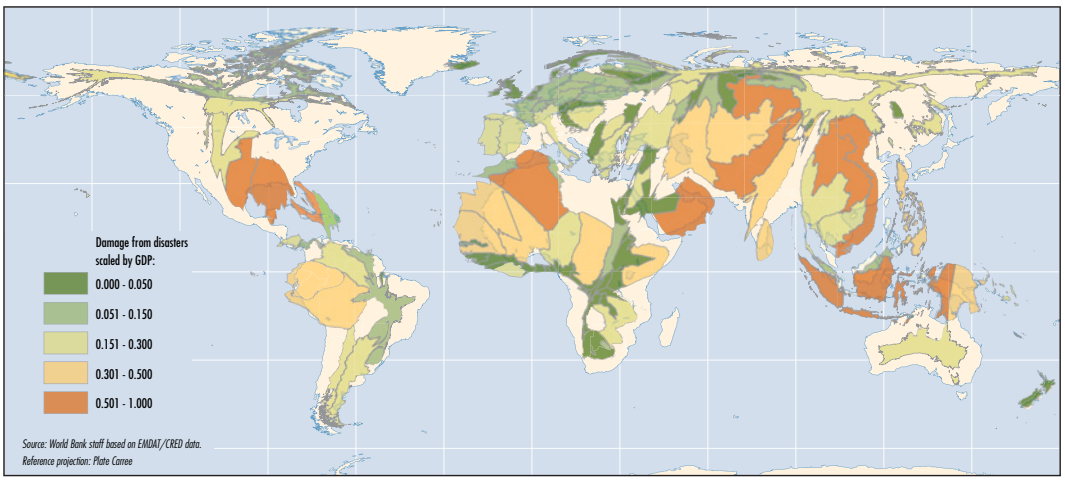
Institutions that prevent damage develop more slowly than assets as countries urbanize and prosper. But this is not immutable: even poor countries can undertake effective prevention, and more can rise to the challenge of doing so.

Disasters' many effects

A disaster obviously hurts those affected. It also spares many in the affected area, yet those spared may be indirectly affected. The village tinker's and tailor's businesses suffer when a cyclone spares their premises but destroys their customers' crops. And such indirect effects extend beyond the affected area, which is linked to undamaged areas through commerce. These indirect effects are often—but not always—adverse. Disentangling the effects is difficult, but clarity of concepts can help, starting with measurement.

How much output falls in the affected area, and for how long, has been controversial. Many factors (simultaneous changes in commodity prices, terms of trade, exchange rates) affect output, and studies differ on whether and how these are taken into account when measuring the effect of a disaster. A disaster may affect only a small part of a country, so it may not

Map 2 Damages shrink Africa but expand middle-income countries



Note: Areas reflect cumulative damage from disasters scaled by GDP for 1970 to 2008.
Source: World Bank staff based on EM-DAT/CRED.

reduce national output to the same extent as in the affected area. Studies for this report find that national output always falls after a severe disaster, but (depending on the hazard) sometimes rises after a mild one. An earthquake reduces output, but subsequent reconstruction increases economic activity—though people are obviously worse off. Economic growth is output's rate of change, so even if output recovers only to its former level after falling, growth (for a brief period) would be higher than pre-disaster rates.

Output does not measure peoples' well-being, especially following a disaster. And not everyone is affected equally—even in the affected area. Farmers who have not lost their crops get higher prices if overall harvest were lower. So the indirect effects—especially in the area outside the disaster zone—are not all adverse.

Governments often assess the damage after a disaster, and such assessments differ in scope, purpose, and technique. The report discusses the conceptual and practical issues in measuring damage and the direct and indirect effects from a disaster. Measuring damage is tricky, prone to both overestimation (for example, double counting) and underestimation (it is difficult to value loss of life, or damage to the environment). Biases also affect the accuracy of estimates, especially when the prospect of aid affects incentives.

Accurate measurement is more likely when its purpose is clear, though some items of interest cannot be measured. Damage assessments have multiple and often overlapping purposes. They could guide government relief (such as how much to spend on alleviating the victims' suffering, knowing that other spending must be cut or taxes raised). They could show how to hasten economic recovery or identify specific measures to improve prevention. This report examines the conceptual and practical feasibility of meeting each purpose.

People do not wait for help to begin repairing their homes and rebuilding their lives, but the poor, with nothing to fall back on, may require help. The government often provides transfers in cash and kind, but "compensation" is a misnomer because the amounts (typically less than twice per capita GDP) are usually less than what people have lost. The government's fiscal situation limits these transfers because even if it could borrow, the debts must be later serviced. So, knowing the disaster's medium-term fiscal implications would be more useful than measuring the damage to private property. If relief and recovery spending displace maintenance of infrastructure, as they often do, the deaths and damage from future disasters would rise.

Recovery requires that commerce resume, and this involves restoring the affected area's links with the rest of the economy. It is in the self-interest of people and private firms up and down the supply chain to repair these links (banking, trucking)—but physical infrastructure (roads, bridges, railways) is often the government's responsibility. Assessing damage to public infrastructure is urgent, and governments must quickly decide what, where, and whether to rebuild. This decision will in turn affect individual decisions to rebuild. Who in government decides depends on the country's administrative structure, and the people affected are best placed to guide the choice of which road or bridge to repair first.

A disaster's effect on an economy's output, or on the government's budget, is not the same as its effect on people's health and well-being. A disaster undoubtedly reduces the well-being of those affected—and even if survivors recover and consume at their earlier levels, they will have suffered in the immediate aftermath.

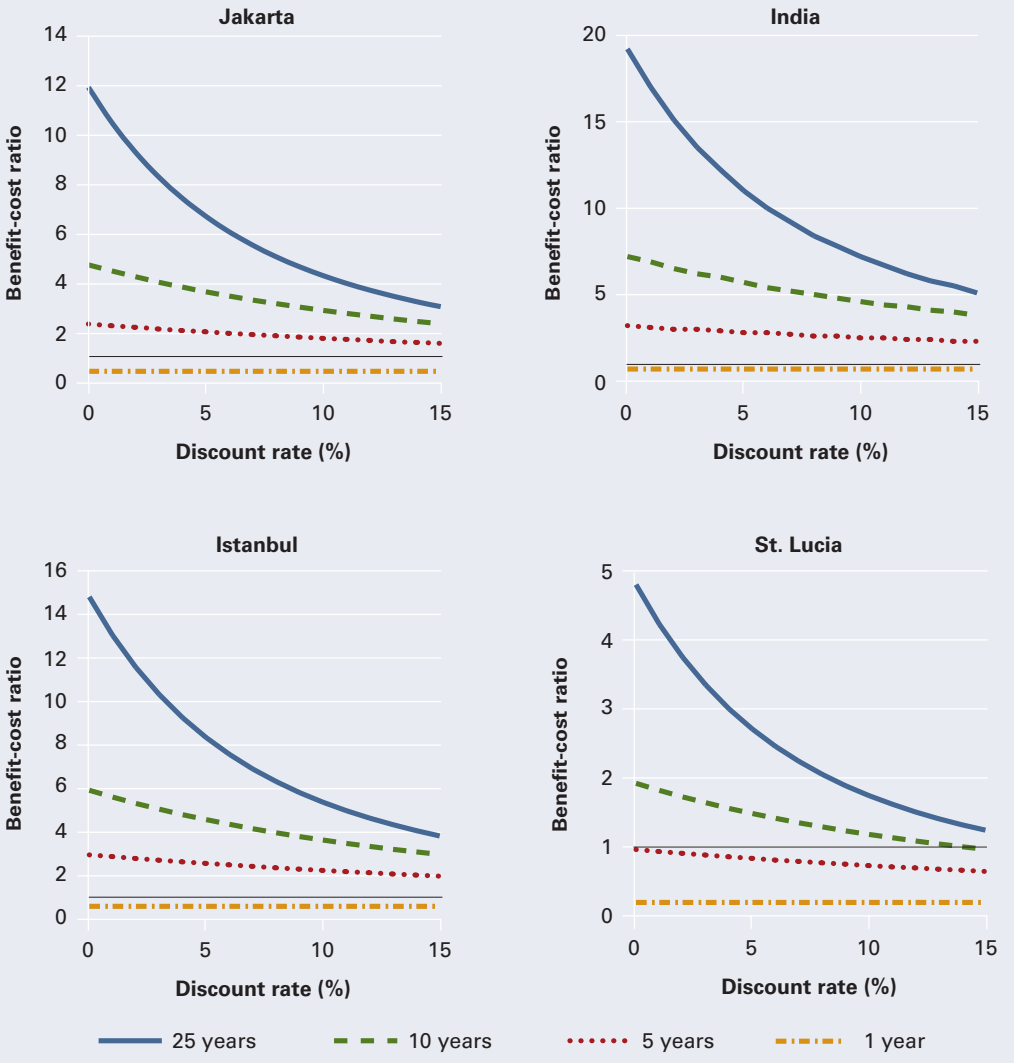
Many studies have examined how disasters affect people in the short run, and this report complements those studies with others that find longer lasting adverse effects on schooling, cognitive abilities, and mental health. Some survivors are pushed over the edge and never completely recover: widespread droughts in Africa result in stunted and malnourished children, with permanent adverse effects. An effective safety net can reduce these consequences, but not every safety net is effective.

The literature has long noted that disasters and conflicts are connected. Hazards, particularly earthquakes and droughts, tend to prolong conflicts, but good institutions reduce the likelihood of their erupting. Such institutions are typically associated with democracy and good governance—factors also associated with prosperity. This report finds that the link is through political competition rather than voting alone. Do disasters increase scarcity and thus conflict? Or do they create an opportunity for peace, as in Aceh? Either is possible, and good institutions make the better outcome more likely.

Prevention by individuals

The analytical framework of prevention, insurance, and coping has proved useful in many settings, and the report is structured around these concepts, distinguishing individual choices and collective decisions (at different levels

Figure 7 Private preventive measures pay



Note: Key prevention measures for which benefit-cost ratios were calculated are: elevating a house by 1 meter to reduce damage from floods (Jakarta); protecting windows and doors and upgrading roofs to prevent hurricane damage (Canaries and Patience, St. Lucia); retrofitting buildings to increase quake resiliency (Istanbul); and flood-proofing a brick house (Rohini River Basin, Uttar Pradesh, India).
Source: IIASA/RMS/Wharton 2009.

of government). People choose how much prevention to undertake (consciously or by default), how much insurance to purchase, and how much residual risk to bear through coping. Is individual prevention adequate and effective?

People undertake prevention to the point where expected benefits (avoiding losses) exceed the costs—subject to their budget constraint (figure 7).

But people differ and everyone chooses differently. Such differences do not necessarily imply that some choose badly, but it is reassuring when large numbers take prevention measures that seem well justified. Rates of returns for several commonly-used prevention measures—such as raising the plinth in flood-prone Jakarta, or protecting windows and doors against wind and rain damage in the Canary Islands—show that some measures are warranted but not all.

One person's choice may puzzle another: many live in exposed areas known to be hazardous—whether in poverty in Bangladesh or in affluence along the Florida coast. Recent theories and experimental findings show that people sometimes misperceive risks and may not always act in their own best interests. But there also are more prosaic explanations involving tradeoffs such as proximity to work and access to such conveniences as public transport, given limited budgets.

Living in riskier locations is cheaper for the individual and allows spending on other necessities (food, children's schooling), so the poor face difficult choices. Safer structures could be built in risky areas (on hill slopes, in seismic areas) with sufficient knowledge, care and expense. But when a person's ownership of property is not secure, the possibility of eviction or demolition erodes the incentive to invest in safe structures. A study of 1.2 million land titles distributed in 1996 in Peru finds that land titling is associated with a 68 percent increase in housing renovation within four years.

Insecurity of land holdings is not the only disincentive to build well: rent controls or other similar regulations erode a landlord's incentive to maintain buildings. The situation in Mumbai, India, where neglected buildings collapse in severe storms, killing occupants, is described in some detail. Mumbai has had rent controls and distorting taxes whose adverse effects have accumulated over decades. Buildings were restricted to being only a few stories tall, hindering agglomeration, and decaying industries occupy land that could be put to better use. Such policies also contribute to the dearth of good housing and to the poor living in unsafe shanty towns that mushroom in and around prospering cities. They have also starved cities of tax revenues, so the needed infrastructure is not built, or is built badly.

Structures are also shoddy because people do not always know the hazards they face or what it takes to build well. Detailed accounts from Italy, Pakistan, and Sri Lanka illustrate the challenge of improving building practices, the importance of information (about hazards and how to build better), and the limited role of building codes.

Calls for stronger building codes reverberate after a disaster, and stricter enforcement becomes the siren call. But there are few improvements if private owners and builders view these codes as yet another hurdle to overcome, or if officials are corrupt or complacent. Like any regulation, codes are also susceptible to capture by vested interests (California's first building code of 1933 sought to prevent the use of steel to protect the jobs of bricklayers, even though unreinforced brick structures are highly vulnerable in seismic areas). Codes work through "institutions," and are one cog in

a complex system of inculcating better building practices. They are most effective when they contain accurate and accessible information about hazard risks and the properties of newer building materials, and when there are incentives to build sound structures (for example, private owners having clear title). Good building practices can be fostered even without a code, as the rebuilding after the 2005 earthquake in the remote and mountainous region of Pakistan shows.

Prevention through governments

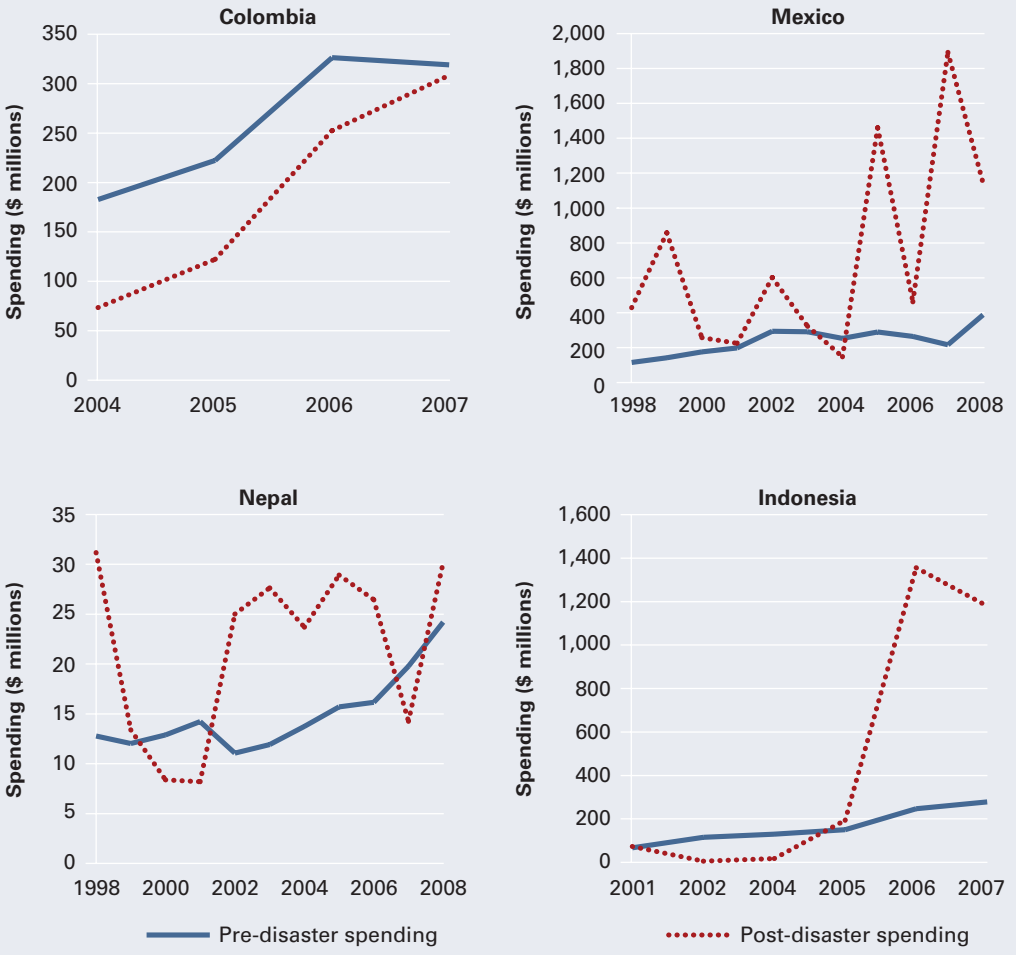
Governments can help in effective prevention, but struggle to do so. It is difficult to measure *how much* governments spend on prevention because this is not a specific budget item. Detailed analysis in Colombia, Indonesia, Mexico, and Nepal found that prevention spending was less than post-disaster spending except in Colombia (figure 8). But this does not imply that it was "too little," for it is hard to isolate what constitutes prevention and even harder to determine adequate spending.

Effective prevention measures are often embedded in other spending (in such infrastructure as an embankment), and there are indications that reversing the past neglect of maintenance (painting bridges to reduce corrosion and subsequent failure) and investing in intangibles (tallying decrepit structures) has large benefits. So, why does it not happen, and who determines government spending? Some assert that politicians are short-sighted, but competition in the market for votes, like other competition, would generally provide what the public wants. In the United States, voters favor relief spending over prevention, leading some to conclude that voters (not politicians) either are myopic or misperceive hazard risks. The findings are equally consistent with far-sighted voters being skeptical (perhaps justifiably) of politicians' ability to organize prevention effectively.

The challenge for governments is to translate spending into effective prevention, and cost-benefit analysis is a useful tool—but one that must be used with care. The benefits of prevention are understated if human lives are not valued, but attaching a value to life has enormous moral and ethical implications. Most government spending, especially on prevention, has distributional implications: a dam protects one group but may increase the flood risk of another. Cost-benefit analysis attaches implicit weights—and while these could be explicitly changed, officials lack the moral authority to decide unilaterally. Such decisions require a political consensus that countries with good institutions possess.

Cost-benefit analysis is a filter that can rank alternatives, not a scoop that can generate options. Prosperous countries have better prevention because they also have good institutions that oversee government decisions. Such oversight cannot be only through legislative bodies. And broader involvement requires the government to fully disclose what it knows and does—transparency not just about a decision but the entire process—and to encourage (not just grudgingly tolerate) dissenting views.

Figure 8 Post-disaster spending fluctuates more than pre-disaster spending



Source: de la Fuente 2009.

The report identifies three specific spending items desirable for prevention. *An early warning system* can save lives and property. There have been many advances in weather prediction technologies, but few countries have taken full advantage of that. The report outlines these technological developments and how a modest but well allocated increase in spending—and sharing real-time data internationally—would benefit countries.

Critical infrastructure that functions during and after a disaster reduces the loss of life and property. While all infrastructure must be well designed, constructed, and maintained, designating a subset as "critical" allows the government to pay special attention to it. What is critical depends on the situation and the hazard. Critical is not synonymous with the importance of some infrastructure in normal times: the choice requires informed judgment.

Environmental buffers offer protection from hazards within physical limitations. Forests and wetlands offer little protection from extreme floods when soils are already saturated. Similarly, mangrove belts a few hundred meters wide can significantly reduce the destruction from a small tsunami but not a big one. Protecting the environment is cheaper than restoring it, but knowing what to protect is hard because development involves change, and many changes are unforeseeable. But some who seek to protect the environment may have also exaggerated the benefits in cost-benefit analysis: careful analysis is important but difficult. Again, good institutions help: when more people observe—and question—what is happening, better things get done. When governments make what they know freely available and what they decide transparent, the benefits invariably follow.

Insurance and coping

People do not take prevention measures to eliminate all risks—nor can they. Insurance and other measures (borrowing, setting funds aside, remittances) "soften the blow" when disasters unfold. But these measures, even though designed for and executed in ex-post situations, also affect prevention and are examined from that perspective.

Insurance transfers risk to those willing to bear it. It clearly increases a person's choices and thus well-being, but softening the blow dilutes the incentive to prevent, unless the insurance premium reflects the risk and the prevention measures that a person undertakes. The premium must also cover the considerable costs of administration, marketing, and monitoring. Many people forgo insurance if the premia are too high, so commercial insurance develops only for some risks—and in countries where enough people want it. Parametric insurance (where the payout is specified, so that incurred damages do not have to be ascertained) reduces some of the monitoring costs. But such schemes have low penetration rates in developing countries, partly because of a lack of detailed data on the frequencies and intensities of hazards and exposed assets.

Insurance invariably draws in the government—as regulator, as provider (in many countries), or as reinsurer—inevitably adding a political dimension. This often results in attempts to lower the premia through subsidies (as with flood insurance in the United States), or, conversely, to favor insurers by keeping premia high or keeping out competition. An inappropriate premium has adverse effects that are difficult to rectify later: too low a premium encourages construction in hazard-prone areas (vacation homes in Florida).

Whether governments should buy insurance against disasters is not as clear-cut as it may seem: the alternatives are to set funds aside in reserve or to borrow so that they have funds to spend after a disaster. Many governments are already indebted, and even those with low debts may find it difficult to borrow when they most need to. While individuals are risk-averse, there are good reasons for some governments acting on their behalf to be risk-

neutral. A risk-neutral entity would buy insurance only if the premium were lower than the probability times the expected loss (which leaves nothing to cover the insurer's costs). This argues against governments buying commercial insurance. But a disaster that is large relative to their economy's size (as in the Caribbean, where the main unknown is the island that gets hit) may make some governments risk-averse, and insurance could be beneficial.

The Caribbean Catastrophe Risk Insurance Facility, which pools disaster risks regionally, helps countries in such circumstances purchase insurance less expensively than otherwise. Prices that insurance firms offer may differ from prices in capital markets, and such price comparisons can produce large savings, as Mexico found when issuing catastrophe bonds. The World Bank's Catastrophe Risk Deferred Drawdown Option is a loan that disburses quickly, to provide immediate liquidity if and when the borrowing government declares an emergency.

What cannot be prevented or insured against must be borne, and a variety of coping mechanisms ("informal insurance," as distinct from market insurance) have developed over the centuries, many embedded in tradition and custom. Private individuals and groups abroad send remittances directly to those they know, and such remittances surge after a disaster, even when there is no media coverage. The funds arrive quickly to help people cope.

While remittances are routinely spent on consumer durables, some improve the quality of housing. Houses made sturdier could be considered a prevention measure, though the situation varies. In Turkey, 13 years after the 1970 Gediz earthquake, the reconstructed area was peppered with improperly reinforced concrete houses—mostly paid for by the earnings of family members in Germany. Better building practices are needed to ensure safe buildings. But not all who need help receive remittances, and there are sometimes impediments to such flows that the government could remove (controls on capital flows, dual exchange rates). Private remittances also help develop banking and money transfer facilities that strengthen an area's commercial ties with other parts of the country and the world.

Aid also has a role in prevention, but it can be double-edged: while some aid is warranted, it can also give rise to the Samaritan's dilemma. Some observers have noted the disincentives donor programs can create—they can, for example, erase a country's incentive to provide its own safety nets. Nicaragua declined to pursue a weather indexing program after it had been priced in the global reinsurance market: it cited international assistance following Hurricane Mitch in 1998 as an indication of dependable alternatives. Some new but not very strong evidence suggests that post-disaster aid reduces prevention. It may be unfair, though, to blame only countries for neglecting prevention: Mozambique, anticipating major floods in 2002, asked donors for $2.7 million to prepare and got only half the amount, but $100 million were received in emergency assistance following the floods, with another $450 million pledged for rehabilitation and reconstruction.

Vibrant communities, however, use aid well. The main lesson for donors is to be aware of the potentially adverse effects of their actions. Governments

in recipient countries can do much to prevent waste that may result from a sudden flow of uncoordinated aid or from inappropriate aid in kind.

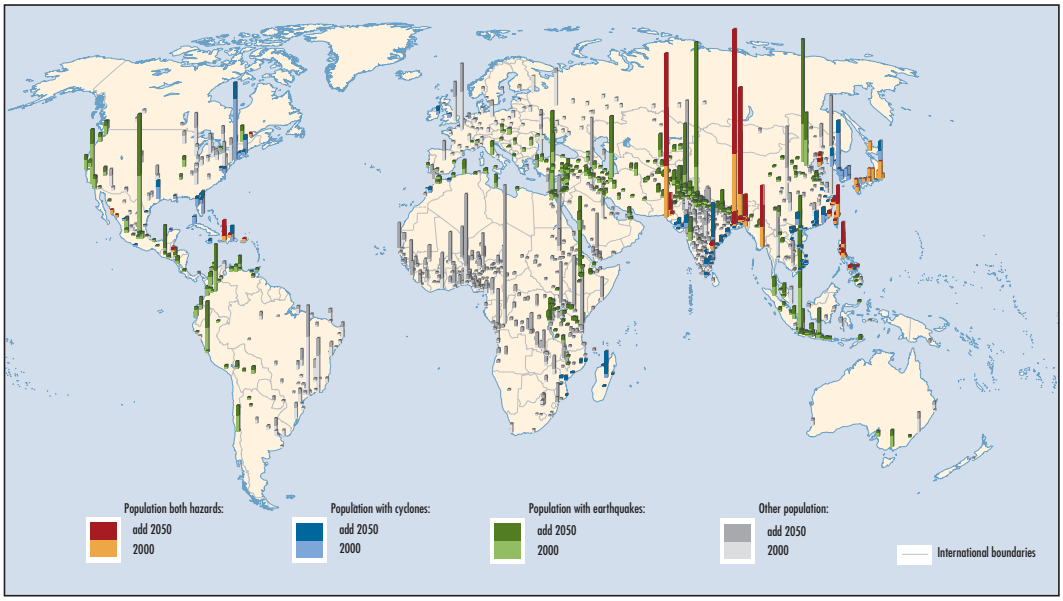
Game-changers? Burgeoning cities, climate change, and climate-related catastrophes

That urban areas and population will grow is certain; but which cities will grow, and how fast, is less predictable. Most growing cities are in developing countries, and growth increases exposure to hazards (map 3).

The growing density of people and economic activity will change the economics of effective prevention. But greater exposure need not increase vulnerability if cities are well managed.

Climate change complicates this further. The scientific models to forecast weather do not allow confident projections at the local level, but the intensity, frequency, and distribution of hazards will change with the climate. The expected annual damage from climate-change induced tropical cyclones alone could be in the $28 billion to $68 billion range. These estimates, sensitive to various parameters and assumptions about the future, are in "expected value" terms per year. But the damages are not expected to come in a steady stream. Climate change is expected to skew the damage distribution of tropical cyclones and is likely to cause rare—but very powerful—tropical cyclones to become more common. This report finds that for the United States, destructive storms that would come every 38

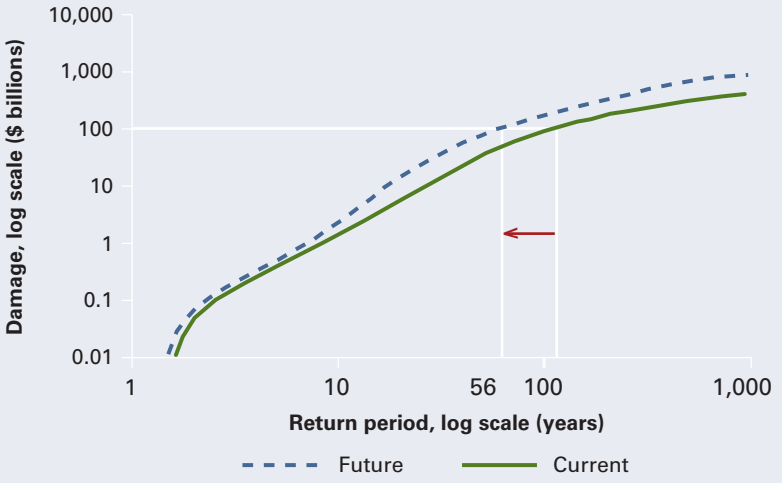
Map 3 Exposure to cyclones and earthquakes in large cities may rise from 680 million people in 2000 to 1.5 billion people by 2050



IBRD 37675
AUGUST 2010

Source: Brecht and others 2010.

Figure 9 Climate change shortens the return period of large storms



Note: The figure shows the return period for tropical cyclones of different intensity in the United States for one specific climate model (MIROC). A $100 billion storm is estimated to happen once in a 100 years in the United States given the current climate. With a future warmed climate, it is expected to happen once in about 56 years.
Source: Mendelsohn, Emanuel, and Chonabayashi 2010a.

to 480 years given the current climate, would come every 18 to 89 years with future climate change. Climate change "fattens the tail" of the tropical cyclone damage distribution (figure 9). Even though very rare and damaging storms are part of today's climate, they will become more frequent in a warmer climate.

Scientists have identified several catastrophes that a changing climate might trigger: drastic sea level rise, disruption of ocean currents, large-scale disruptions to the global ecosystem, and accelerated climate change, for example, from large releases of methane now trapped by permafrost. Catastrophic risks and costs need to be weighed differently than less severe events. Prudence in responding to catastrophic threats calls for a portfolio of measures that emphasizes learning and mid-course corrections. A broad portfolio is desirable because the potential effectiveness of individual measures is uncertain.

Cities, climate, and pending catastrophes are altering the disaster prevention landscape. While hazards will always be with us, disasters show that something has failed. But determining what has failed and deciding on the corrective measures are not always obvious. And arguing whether Hurricane Katrina or Cyclone Nargis occurred as a result of climate change detracts attention from policies that continue to misprice risk, subsidize exposure, reduce individuals' incentives to reduce risk, and promote risky behavior in the long run.

People rise out of poverty through better technology, greater market access, and more investment in activities that spill benefits from one set of

economic actors to others through greater interdependence, higher productivity, and stronger institutions. Living in cities facing serious risks of inundation is undesirable, but a failure to significantly reduce poverty would be even more undesirable. Fortunately, neither is inherently necessary. People acting individually and through responsive governments can prosper and survive. Progress requires and results in better institutions: those, after all, are the basis of sustainable development.

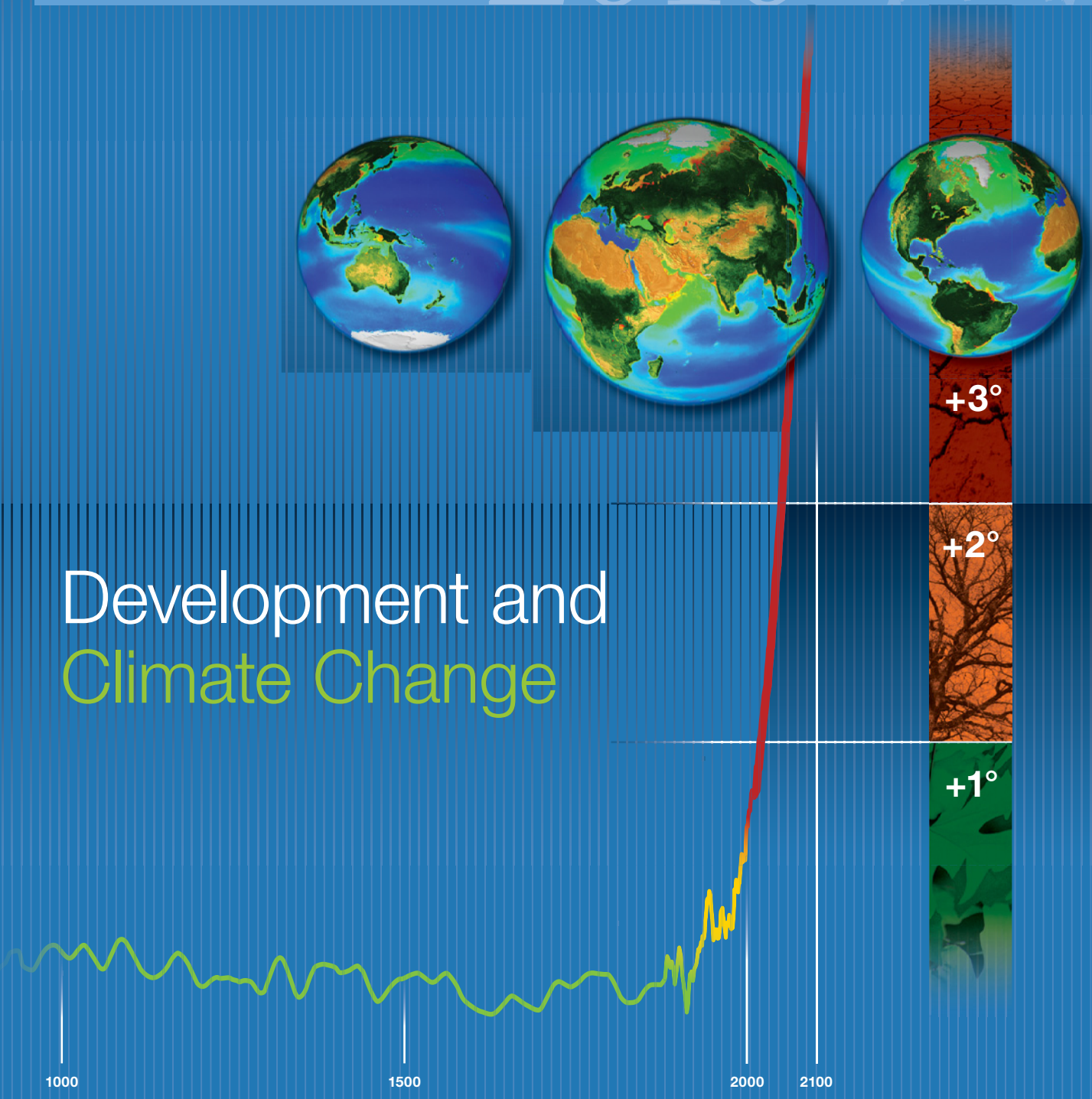
Annex 500

"World Development Report 2010: Development and Climate Change", *The World Bank,* 7 June 2011, pages 4-5

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world development report 2010

Development and Climate Change



THE WORLD BANK

Headed toward the danger zone

Human activity is warming the planet. For the past millennium the Earth's average temperature varied within a range of less than 0.7°C (shown in green); however, man-made greenhouse gas emissions have resulted in a dramatic increase in the planet's temperature over the past century (shown in yellow). The projected future increase over the next 100 years (shown in red) due to growing emissions could possibly warm the planet by 5°C relative to the preindustrial period. Such warming has never been experienced by mankind and the resulting physical impacts would severely limit development. Only through immediate and ambitious actions to curb greenhouse gas emissions may dangerous warming be avoided.

The evolution of the planet's temperature for the past 1,000 years is based on a range of proxy estimates (such as tree ring analysis or ice core sampling) that define the envelope of long-term temperature variation. With modern weather observations starting in the nineteenth century, global temperature could be estimated more precisely; thermometer data for the past 150 years or so document a global temperature increase of nearly 1°C since the preindustrial period. Global climate models that estimate the effect of different future emission scenarios on Earth's climate predict a range of possible global temperatures for this century. These estimates show that even the most aggressive mitigation efforts may lead to warming of 2°C or more (a level already considered dangerous), and most models project that less mitigation would lead to warming of 3°C or even up to 5°C and beyond (though with less certainty around these higher amounts of warming).

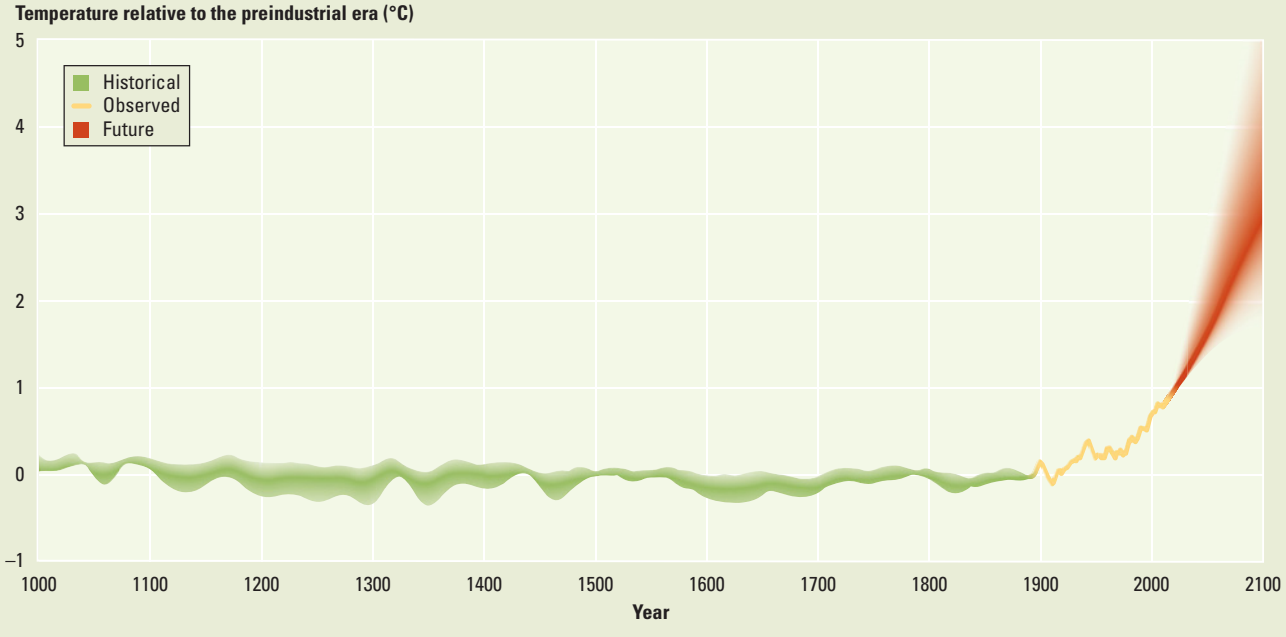
The three globes on the cover are composites of data collected by satellites during the summer months of 1998 through 2007. The colors of the ocean represent chlorophyll concentration, which is a measure of the global distribution of oceanic plant life (phytoplankton). Deep blue colors are areas of low chlorophyll concentration while green, yellow, and red indicate ever higher concentration. The colors on land show vegetation, with whites, browns, and tans representing minimal vegetative cover and light greens through dark greens indicating ever more dense vegetation. Biological processes on land and in the oceans play a key role in regulating Earth's temperature and carbon cycle, and information such as presented in these global maps is essential to manage limited natural resources in an increasingly populous world.

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world development report 2010

Development and Climate Change



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Washington, DC

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Softcover
ISBN: 978-0-8213-7987-5
ISSN: 0163-5085
eISBN: 978-0-8213-7988-2
DOI: 10.1596/978-0-8213-7987-5

Hardcover
ISSN: 0163-5085
ISBN: 978-0-8213-7989-5
DOI: 10.1596/978-0-8213-7989-5

Cover design: Rock Creek Strategic Marketing
Cover globe images: Norman Kuring, Ocean Biology Processing Group, National Aeronautics and Space Administration (http://oceancolor.gsfc.nasa.gov)
Interior design: Naylor Design, Inc.
Typesetting: Precision Graphics

Photo credits: Gary Braasch: Overview, chapters 3, 4, 5, 7; Corbis: chapters 1, 2, 6, 8

For more information about the World Development Report 2010, please visit http://www.worldbank.org/wdr.

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Overview

Changing the Climate for Development

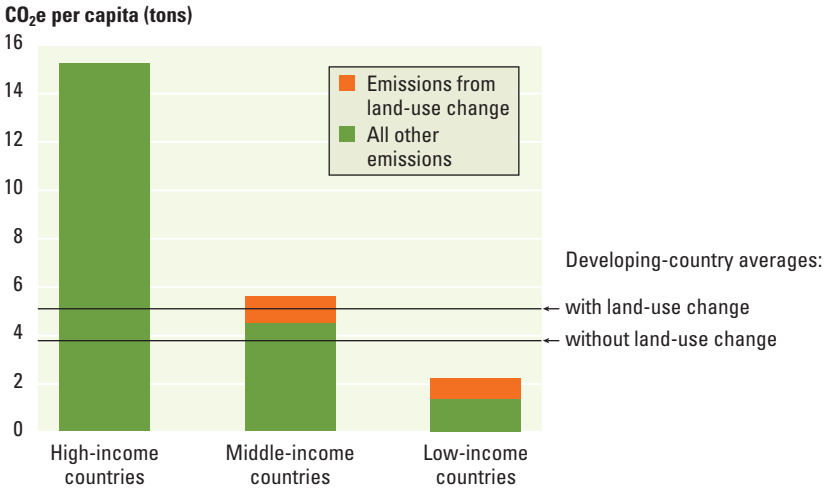
Thirty years ago, half the developing world lived in extreme poverty—today, a quarter.[1] Now, a much smaller share of children are malnourished and at risk of early death. And access to modern infrastructure is much more widespread. Critical to the progress: rapid economic growth driven by technological innovation and institutional reform, particularly in today's middle-income countries, where per capita incomes have doubled. Yet the needs remain enormous, with the number of hungry people having passed the billion mark this year for the first time in history.[2] With so many still in poverty and hunger, growth and poverty alleviation remain the overarching priority for developing countries.

Climate change only makes the challenge more complicated. First, the impacts of a changing climate are already being felt, with more droughts, more floods, more strong storms, and more heat waves—taxing individuals, firms, and governments, drawing resources away from development. Second, continuing climate change, at current rates, will pose increasingly severe challenges to development. By century's end, it could lead to warming of 5°C or more compared with preindustrial times and to a vastly different world from today, with more extreme weather events, most ecosystems stressed and changing, many species doomed to extinction, and whole island nations threatened by inundation. Even our best efforts are unlikely to stabilize temperatures at anything less than 2°C above preindustrial temperatures, warming that will require substantial adaptation.

High-income countries can and must reduce their carbon footprints. They cannot continue to fill up an unfair and unsustainable share of the atmospheric commons. But developing countries—whose average per capita emissions are a third those of high-income countries (figure 1)—need massive expansions in energy, transport, urban systems, and agricultural production. If pursued using traditional technologies and carbon intensities, these much-needed expansions will produce more greenhouse gases and, hence, more climate change. The question, then, is not just how to make development more resilient to climate change. It is how to pursue growth and prosperity without causing "dangerous" climate change.[3]

Climate change policy is not a simple choice between a high-growth, high-carbon world and a low-growth, low-carbon world—a simple question of whether to grow or to preserve the planet. Plenty of inefficiencies drive today's high-carbon intensity.[4] For example, existing technologies and best practices could reduce energy consumption in industry and the power sector by 20–30 percent, shrinking carbon footprints without sacrificing growth.[5] Many mitigation actions—meaning changes to reduce emissions of greenhouse gases—have significant co-benefits in public health, energy security, environmental sustainability, and financial savings. In Africa, for example, mitigation opportunities are linked to more sustainable land and

Figure 1 Unequal footprints: Emissions per capita in low-, middle-, and high-income countries, 2005



Sources: World Bank 2008c; WRI 2008 augmented with land-use change emissions from Houghton 2009.
Note: Greenhouse gas emissions include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and high-global-warming-potential gases (F-gases). All are expressed in terms of CO_2 equivalent (CO_2e)—the quantity of CO_2 that would cause the same amount of warming. In 2005 emissions from land-use change in high income countries were negligible.

forest management, to cleaner energy (such as geothermal or hydro power), and to the creation of sustainable urban transport systems. So the mitigation agenda in Africa is likely to be compatible with furthering development.[6] This is also the case for Latin America.[7]

Nor do greater wealth and prosperity inherently produce more greenhouse gases, even if they have gone hand in hand in the past. Particular patterns of consumption and production do. Even excluding oil producers, per capita emissions in high-income countries vary by a factor of four, from 7 tons of carbon dioxide equivalent (CO_2e)[8] per capita in Switzerland to 27 in Australia and Luxembourg.[9]

And dependence on fossil fuel can hardly be considered unavoidable given the inadequacy of the efforts to find alternatives. While global subsidies to petroleum products amount to some $150 billion annually, public spending on energy research, development, and deployment (RD&D) has hovered around $10 billion for decades, apart from a brief spike following the oil crisis (see chapter 7). That represents 4 percent of overall public RD&D. Private spending on energy RD&D, at $40 billion to $60 billion a year, amounts to 0.5 percent of private revenues—a fraction of what innovative industries such as telecommunications (8 percent) or pharmaceuticals (15 percent) invest in RD&D.[10]

A switch to a low-carbon world through technological innovation and complementary institutional reforms has to start with immediate and aggressive action by high-income countries to shrink their unsustainable carbon footprints. That would free some space in the atmospheric commons (figure 2). More important, a credible commitment by high-income countries to drastically reduce their emissions would stimulate the needed RD&D of new technologies and processes in energy, transport, industry, and agriculture. And large and predictable demand for alternative technologies will reduce their price and help make them competitive with fossil fuels. Only with new technologies at competitive prices can climate change be curtailed without sacrificing growth.

There is scope for developing countries to shift to lower-carbon trajectories without compromising development, but this varies across countries and will depend on the extent of financial and technical assistance from high-income countries. Such assistance would be equitable (and in line with the 1992 United Nations Framework Convention on Climate Change, or UNFCCC): high-income countries, with one-sixth of the world's population, are responsible for nearly two-thirds of the greenhouse gases in the atmosphere (figure 3). It would also be efficient: the savings from helping to finance early mitigation in developing countries—for example, through infrastructure and housing construction over the next decades—are so large that they produce clear economic benefits for all.[11] But designing, let alone implementing, an international agreement that involves substantial, stable, and predictable resource transfers is no trivial matter.

Developing countries, particularly the poorest and most exposed, will also need assistance in adapting to the changing climate. They already suffer the most from extreme weather events (see chapter 2). And even relatively modest additional warming will require big adjustments to the way development policy is designed and implemented, to the way people live and make a

living, and to the dangers and the opportunities they face.

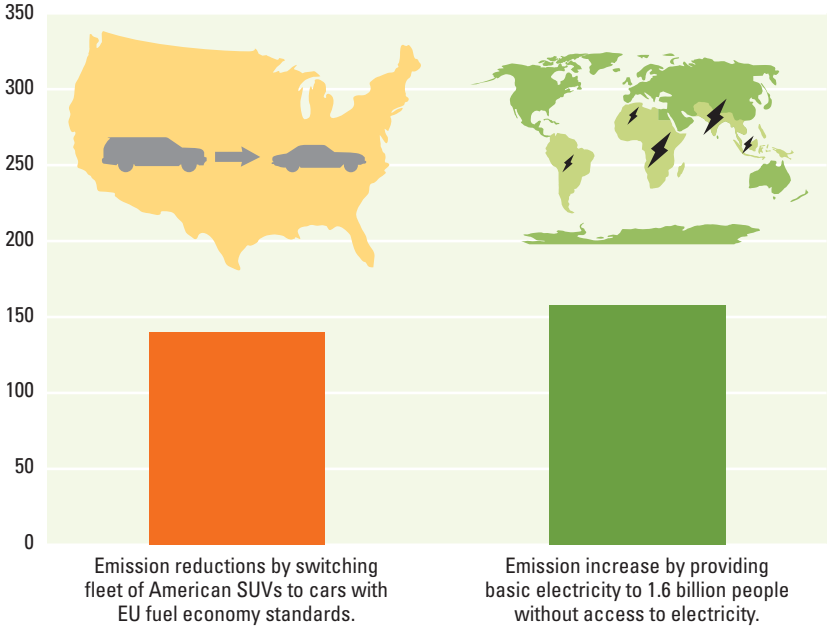
The current financial crisis cannot be an excuse to put climate on the back burner. On average, a financial crisis lasts less than two years and results in a 3 percent loss in gross domestic product (GDP) that is later offset by more than 20 percent growth over eight years of recovery and prosperity.[12] So for all the harm they cause, financial crises come and go. Not so with the growing threat imposed by a changing climate. Why?

Because time is not on our side. The impacts of greenhouse gases released into the atmosphere will be felt for decades, even millennia,[13] making the return to a "safe" level very difficult. This inertia in the climate system severely limits the possibility of making up for modest efforts today with accelerated mitigation in the future.[14] Delays also increase the costs because impacts worsen and cheap mitigation options disappear as economies become locked into high-carbon infrastructure and lifestyles—more inertia.

Immediate action is needed to keep warming as close as possible to 2°C. That amount of warming is not desirable, but it is likely to be the best we can do. There isn't a consensus in the economic profession that this is the economic optimum. There is, however, a growing consensus in policy and scientific circles that aiming for 2°C warming is the responsible thing to do.[15] This Report endorses such a position. From the perspective of development, warming much above 2°C is simply unacceptable. But stabilizing at 2°C will require major shifts in lifestyle, a veritable energy revolution, and a transformation in how we manage land and forests. And substantial adaptation would still be needed. Coping with climate change will require all the innovation and ingenuity that the human race is capable of.

Inertia, equity, and ingenuity are three themes that permeate this Report. Inertia is the defining characteristic of the climate challenge—the reason we need to act now. Equity is the key to an effective global deal, to the trust needed to find an efficient resolution to this tragedy of the commons—the reason we need to act together. And ingenuity is the only possible answer to a problem that

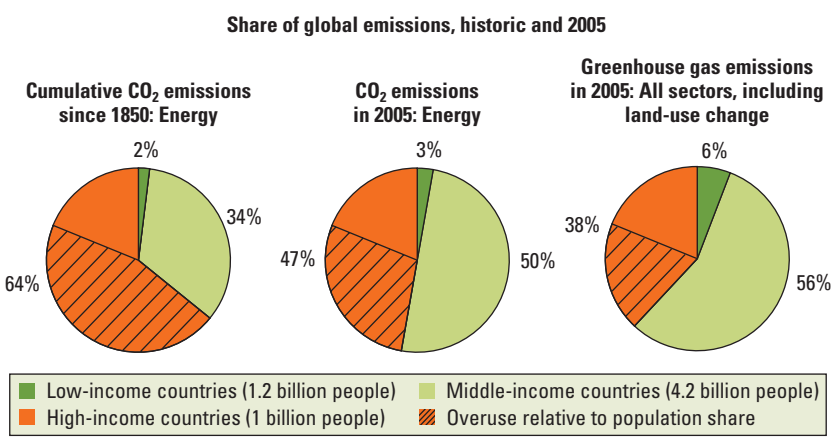
Figure 2 Rebalancing act: Switching from SUVs to fuel-efficient passenger cars in the U.S. alone would nearly offset the emissions generated in providing electricity to 1.6 billion more people



Source: WDR team calculations based on BTS 2008.

Note: Estimates are based on 40 million SUVs (sports utility vehicles) in the United States traveling a total of 480 billion miles (assuming 12,000 miles a car) a year. With average fuel efficiency of 18 miles a gallon, the SUV fleet consumes 27 billion gallons of gasoline annually with emissions of 2,421 grams of carbon a gallon. Switching to fuel-efficient cars with the average fuel efficiency of new passenger cars sold in the European Union (45 miles a gallon; see ICCT 2007) results in a reduction of 142 million tons of CO_2 (39 million tons of carbon) annually. Electricity consumption of poor households in developing countries is estimated at 170 kilowatt-hours a person-year and electricity is assumed to be provided at the current world average carbon intensity of 160 grams of carbon a kilowatt-hour, equivalent to 160 million tons of CO_2 (44 million tons of carbon). The size of the electricity symbol in the global map corresponds to the number of people without access to electricity.

Figure 3 High-income countries have historically contributed a disproportionate share of global emissions and still do



Sources: DOE 2009; World Bank 2008c; WRI 2008 augmented with land-use change emissions from Houghton 2009.

Note: The data cover over 200 countries for more recent years. Data are not available for all countries in the 19th century, but all major emitters of the era are included. Carbon dioxide (CO_2) emissions from energy include all fossil-fuel burning, gas flaring, and cement production. Greenhouse gas emissions include CO_2, methane (CH_4), nitrous oxide (N_2O), and high-global-warming-potential gases (F-gases). Sectors include energy and industrial processes, agriculture, land-use change (from Houghton 2009), and waste. Overuse of the atmospheric commons relative to population share is based on deviations from equal per capita emissions; in 2005 high-income countries constituted 16 percent of global population; since 1850, on average, today's high-income countries constituted about 20 percent of global population.

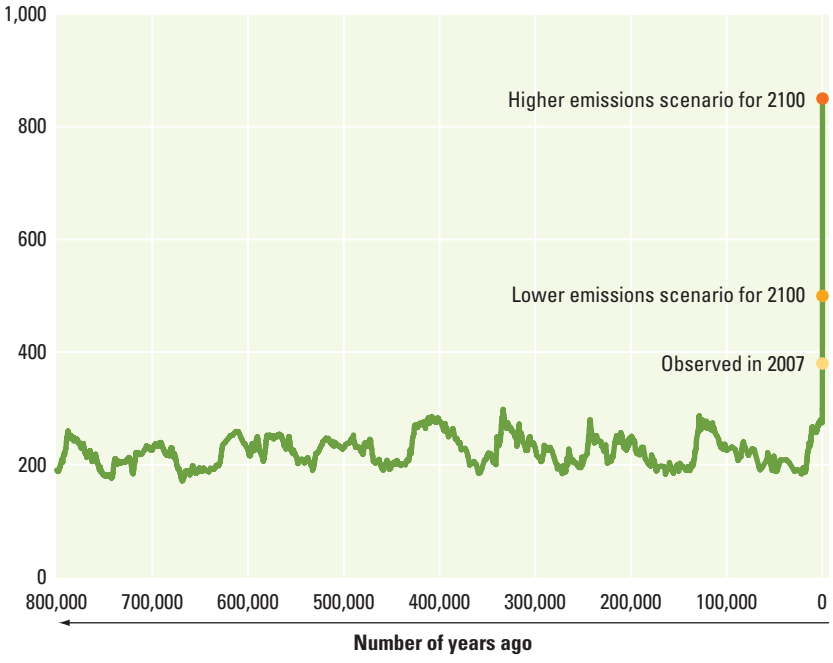
is politically and scientifically complex—the quality that could enable us to act differently than we have in the past. Act now, act together, act differently—those are the steps that can put a climate-smart world within our reach. But first it requires believing there is a case for action.

The case for action

The average temperature on Earth has already warmed by close to 1°C since the beginning of the industrial period. In the words of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), a consensus document produced by over 2,000 scientists representing every country in the United Nations: "Warming of the climate system is unequivocal."[16] Global atmospheric concentrations of CO_2, the most important greenhouse gas, ranged between 200 and 300 parts per million (ppm) for 800,000 years, but shot up to about 387 ppm over the past 150 years (figure 4), mainly because of the burning of fossil fuels and, to a lesser extent, agriculture and changing land use. A decade after the Kyoto Protocol set limits on international carbon emissions, as developed countries enter the first period of rigorous accounting of their emissions, greenhouse gases in the atmosphere are still increasing. Worse, they are increasing at an accelerating rate.[17]

The effects of climate change are already visible in higher average air and ocean temperatures, widespread melting of snow and ice, and rising sea levels. Cold days, cold nights, and frosts have become less frequent while heat waves are more common. Globally, precipitation has increased even as Australia, Central Asia, the Mediterranean basin, the Sahel, the western United States, and many other regions have seen more frequent and more intense droughts. Heavy rainfall and floods have become more common, and the damage from—and probably the intensity of—storms and tropical cyclones have increased.

Figure 4 Off the charts with CO_2



Source: Lüthi and others 2008.

Note: Analysis of air bubbles trapped in an Antarctic ice core extending back 800,000 years documents the Earth's changing CO_2 concentration. Over this long period, natural factors have caused the atmospheric CO_2 concentration to vary within a range of about 170 to 300 parts per million (ppm). Temperature-related data make clear that these variations have played a central role in determining the global climate. As a result of human activities, the present CO_2 concentration of about 387 ppm is about 30 percent above its highest level over at least the last 800,000 years. In the absence of strong control measures, emissions projected for this century would result in a CO_2 concentration roughly two to three times the highest level experienced in the past 800,000 or more years, as depicted in the two projected emissions scenarios for 2100.

Climate change threatens all, but particularly developing countries

The more than 5°C warming that unmitigated climate change could cause this century[18] amounts to the difference between today's climate and the last ice age, when glaciers reached central Europe and the northern United States. That change occurred over millennia; human-induced climate change is occurring on a one-century time scale giving societies and ecosystems little time to adapt to the rapid pace. Such a drastic temperature shift would cause large dislocations in ecosystems fundamental to human societies and economies—such as the possible dieback of the Amazon rain forest, complete loss of glaciers in the Andes and the Himalayas, and rapid ocean acidification leading to disruption of marine ecosystems and death of coral reefs. The speed and magnitude of change could condemn more than 50 percent of species to extinction. Sea levels could rise by one meter this century,[19] threatening more than 60 million people and $200 billion in assets in developing countries alone.[20] Agricultural

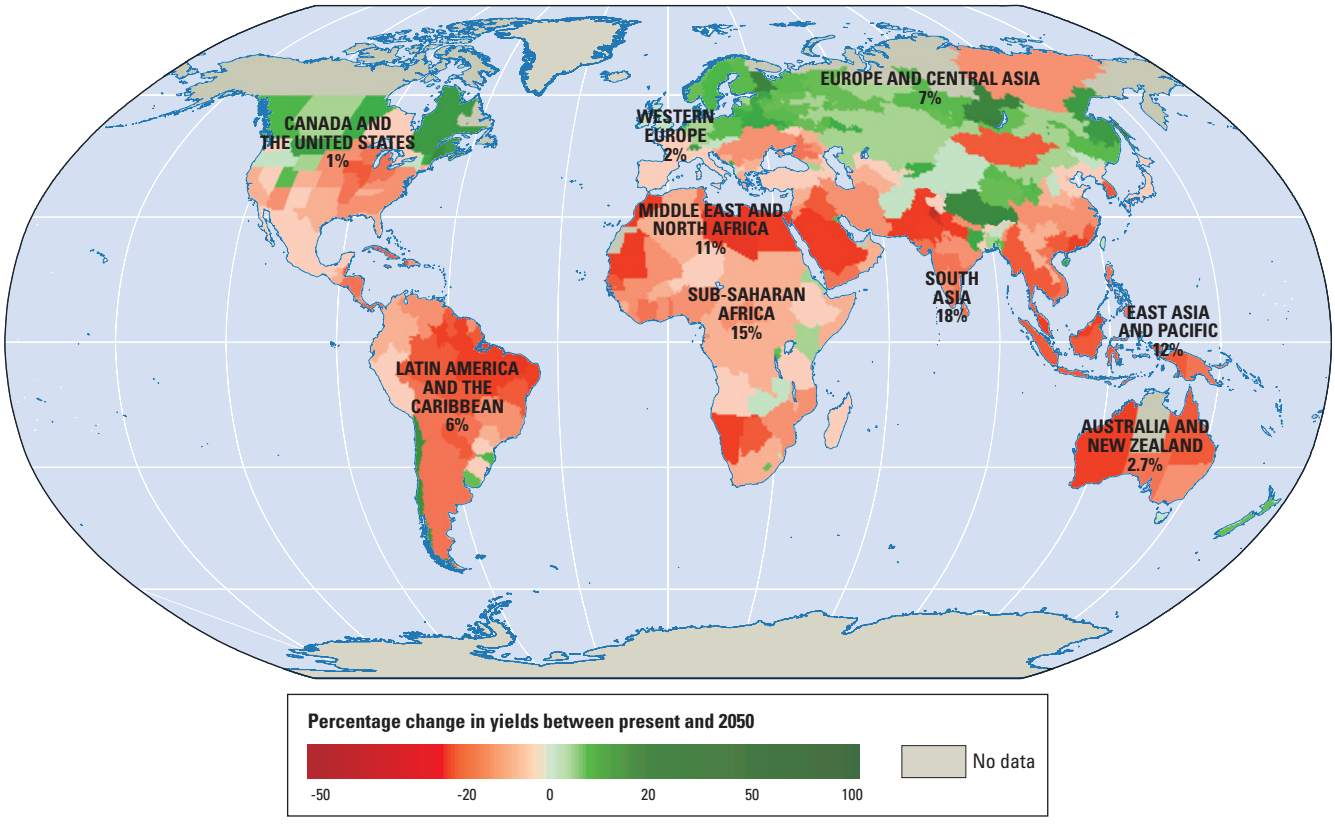
productivity would likely decline throughout the world, particularly in the tropics, even with changes in farming practices. And over 3 million additional people could die from malnutrition each year.[21]

Even 2°C warming above preindustrial temperatures would result in new weather patterns with global consequences. Increased weather variability, more frequent and intense extreme events, and greater exposure to coastal storm surges would lead to a much higher risk of catastrophic and irreversible impacts. Between 100 million and 400 million more people could be at risk of hunger.[22] And 1 billion to 2 billion more people may no longer have enough water to meet their needs.[23]

Developing countries are more exposed and less resilient to climate hazards. These consequences will fall disproportionately on developing countries. Warming of 2°C could result in a 4 to 5 percent permanent reduction in annual income per capita in Africa and South Asia,[24] as opposed to minimal losses in high-income countries and a global average GDP loss of about 1 percent.[25] These losses would be driven by impacts in agriculture, a sector important to the economies of both Africa and South Asia (map 1).

It is estimated that developing countries will bear most of the costs of the damages—some 75–80 percent.[26] Several factors explain this (box 1). Developing countries are particularly reliant on ecosystem services and natural capital for production in climate-sensitive sectors. Much of their population lives in physically exposed locations and economically precarious conditions. And their financial and institutional capacity to adapt is limited. Already

Map 1 Climate change will depress agricultural yields in most countries in 2050, given current agricultural practices and crop varieties



Sources: Müller and others 2009; World Bank 2008c.

Note: The coloring in the figure shows the projected percentage change in yields of 11 major crops (wheat, rice, maize, millet, field pea, sugar beet, sweet potato, soybean, groundnut, sunflower, and rapeseed) from 2046 to 2055, compared with 1996–2005. The yield-change values are the mean of three emission scenarios across five global climate models, assuming no CO_2 fertilization (a possible boost to plant growth and water-use efficiency from higher ambient CO_2 concentrations). The numbers indicate the share of GDP derived from agriculture in each region. (The share for Sub-Saharan Africa is 23 percent if South Africa is excluded.) Large negative yield impacts are projected in many areas that are highly dependent on agriculture.

Annex 501

"On the Frontlines of Climate Change, Small Island States Can Lead in Resilience", *The World Bank,* 11 April 2022

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Who We Are

FEATURE STORY | APRIL 11, 2022

On the Frontlines of Climate Change, Small Island States Can Lead in Resilience



Tropical Cyclone Winston killed 44 people and left 131,000 homeless in early 2016 and wiped out over a third of Fiji's GDP in 36 hours. It was the largest cyclone ever recorded in the Southern Hemisphere.

Photo: Alana Holmberg/World Bank

STORY HIGHLIGHTS

- *From the South Pacific to the Caribbean, small island states are experiencing sea level rise, increasingly severe storms, and economic fallout from the COVID-*

19 pandemic.

- *Along with the loss of homes, roads and other infrastructure, rising seas also pose serious legal implications for small island states, including imperiling their territorial rights.*

- *The World Bank Group's Climate Change Action Plan has a deliberate emphasis on boosting adaptation and resilience -- a vital focus given growing climate impacts.*

Tuvalu's Foreign Minister Simon Kofe rolled up his trousers to address climate leaders at the 2021 global climate summit from a podium immersed in the ocean. Minister Kofe drew attention to the vulnerability of his Pacific nation to rising seas in a warming world in his video message for COP26. He also showed that small island developing states like his are experiencing these impacts now and have lessons for nations that will feel comparable impacts in the coming years.

From Tuvalu to Dominica, from the South Pacific to the Caribbean, small island states are on the frontlines of climate change. The threats they face are varied – from sea level rise that is reshaping and flooding low-lying places like the Marshall Islands and Tuvalu, to increasingly severe storms that have ravaged Fiji and Vanuatu in the Pacific, São Tomé and Príncipe in the equatorial Atlantic, and Dominica in the Caribbean.

Already a threat, sea level rise is likely to worsen in the next three decades. Along with the loss of homes, roads and other infrastructure, rising seas pose serious legal implications for small island states -- including imperiling their territorial rights, access to resources, and raising questions about internal and external migration as residents seek higher ground. Adapting to climate change and increasing resilience to its impacts are becoming increasingly important.

"In the past, our country has focused really heavily on mitigation; we focused on trying to get countries around the world to lower emissions," said **Kathy Jetnil-Kijiner, a poet and climate activist in the Marshall Islands**. *"But adaptation allows us to*

take a more personal, introspective look at our country and our nation and make sure that we are ready first for whatever is to come."

The Marshall Islands is developing a 10-year plan to prioritize actions for climate change adaptation in the short term as well as options for the longer term , as it looks to urgently respond and adapt to the threat of climate impacts and rising sea levels.



In São Tomé and Príncipe, where coastal communities experience flooding as many as 10 times a year, the West Africa Coastal Area Management Program has boosted flood resilience through sea walls and rock revetments, while working with communities on voluntary relocation to safer areas.

Photo: Cristiano Dôndo/World Bank

Reducing Vulnerability

Beyond immediate aid for emergencies, other small island states around the world know they need to build long-term resilience. After being battered by the 2004 Indian Ocean tsunami, the Maldives has prioritized better sea defenses, elevated buildings and early warning systems, while exploring replacing diesel fuel with solar power and determining how to safeguard precious fresh water supplies.

In Fiji, increasingly extreme and costly weather events have led to a decade-long plan to reduce vulnerability to climate change. Tropical Cyclone Winston killed 44 people and left 131,000 homeless in early 2016 and wiped out over a third of the country's GDP in 36 hours. In the aftermath, the Fiji government worked with the World Bank to better understand the threat posed by natural hazards and climate change in order to design climate adaptation and risk management plans. The cost of reducing the island nation's vulnerability to climate change is expected to require an estimated US$4.5 billion (FJ$9.3 billion) over 10 years. Starting in 2017, the Fiji government's "Build Back Better" program strengthened schools and other public buildings to withstand tropical cyclones while protecting the government from the catastrophic costs of rebuilding. The first significant storm to test the more resilient standards, Tropical Cyclone Harold in April 2020, did not damage any of the 181 schools and 25 public buildings that had been completed to date under the program.

In addition to increasing and lasting climate impacts, small island states have also felt the economic impact of the coronavirus pandemic, even if Covid infections were relatively low among their populations. As other countries shuttered their borders and travel was curtailed, essential tourist revenues plummeted. In Fiji before the pandemic, tourism contributed nearly 40% to GDP and directly or indirectly employed over 150,000 people, but as visitor arrivals fell by 87% during the pandemic the economy dropped by 19% in 2020. Vanuatu's tax revenues decreased by about 19% from 2019 to 2020. With many tourism-dependent countries experiencing similar impacts, the World Bank Group is stepping up support for sustainable tourism to boost their economies and aid their recovery from the pandemic.

Likewise, Dominica saw its economy contract -- by 10% in 2020 -- following COVID-induced shocks and a sudden drop in tourism. The Caribbean island was still recovering from 2017's Hurricane Maria which had caused damages amounting to over 200% of GDP when COVID hit. Longer term, the government's Climate Resilience and Recovery Plan (CRRP) 2020-2030 aims to rebuild Dominica as the world's first fully climate resilient nation, including more robust public infrastructure, improved housing, strengthening of health systems, climate resilient agriculture, and geothermal power investment.

The Bank Group's Climate Change Action Plan 2021-2025 has a deliberate emphasis on boosting adaptation and resilience, a vital focus given climate impacts like rising sea levels.

The Bank Group's Climate Change Action Plan 2021-2025 has a deliberate emphasis on boosting adaptation and resilience, a vital focus given climate impacts like rising sea levels. In the African island nation of São Tomé and Príncipe, where coastal communities experience flooding as many as 10 times a year, the West Africa Coastal Area Management Program has boosted flood resilience through sea walls and rock revetments, while working with communities on voluntary relocation to safer areas. These physical structures are combined with nature-based solutions like restoring mangroves to support coastal resilience – investments that are supporting small islands as well as other West African mainland countries.

These island states and others are fast showing what it takes to live with rising seas, more damaging storms and other extreme conditions linked to climate change. Their responses to increasing vulnerability go beyond a reaction to emergencies to chart a possible path for other countries that may eventually face comparable challenges, even though their people live far from the water's edge.

This story focuses on themes of the World Bank Group 2022 Spring Meetings including how COVID-19 and climate change have created unprecedented challenges for developing countries, particularly the poorest and most vulnerable people and communities.

Annex 502

"Barbados – Staff Report for the 2023 Article IV Consultation and Second Reviews under the Arrangement under the Extended Fund Facility Arrangement and Arrangement under the Resilience and Sustainability Facility – World Bank Assessment Letter for the Resilience and Sustainability Facility", *International Monetary Fund*, 6 December 2023

INTERNATIONAL MONETARY FUND

BARBADOS

December 6, 2023

STAFF REPORT FOR THE 2023 ARTICLE IV CONSULTATION AND SECOND REVIEWS UNDER THE ARRANGEMENT UNDER THE EXTENDED FUND FACILITY ARRANGEMENT AND ARRANGEMENT UNDER THE RESILIENCE AND SUSTAINABILITY FACILITY—WORLD BANK ASSESSMENT LETTER FOR THE RESILIENCE AND SUSTAINABILITY FACILITY

A. Country Vulnerability to Climate Change Including Human, Social and Economic Costs

1. Barbados is highly vulnerable to climate change due to increased frequency and intensity of climate-induced natural disasters. Located in the windward part of the Caribbean's archipelago, Barbados's climate is heavily influenced by the El Niño Southern Oscillation and its economy is especially vulnerable to the adverse effects of tropical cyclones, storm surge, and floods. The country's low-lying coastal areas also face severe risk of sea level rise. Observed and anticipated climate change impacts are of particular concern to Barbados given the vulnerability of its housing stock and the increased probability of hurricanes making landfall on the island. Temperatures in Barbados are projected to increase under all emissions scenarios, with median annual mean temperatures expected to rise by 1.03°C under a high emissions scenario (Shared Socioeconomic Pathway 3-7.0, SSP3-7.0) by the 2040-2050 period. Changes in rainfall are less certain, however most scenarios show an expected reduction in annual precipitation across Barbados by the 2040-2059. Under a high emissions scenario (SSP3-7.0), annual precipitation is expected to decline by approximately 9 percent by mid-century.[1] At the sector level, climate change is likely to significantly affect: i) *tourism* through increasing damage to coastal tourism infrastructure, erosion of beaches and coral reefs degradation; ii) *water* scarcity due to a reduction of *water* resources through groundwater contamination from flooding (as a consequence of changing precipitation patterns, increasing frequency of natural disasters, and increased demand for extraction), as well as soil or pollutant infiltration and saline intrusion; a

[1] Source: World Bank Climate Change Knowledge Portal. Accessed via: https://climateknowledgeportal.worldbank.org/country/barbados

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situation which is especially alarming for Barbados, given its ranking among the world's most water-scarce countries; iii) *agricultural* production through droughts, flooding, and storm damages; and iv) *fisheries* due to sea surface temperature increase and sedimentation.

2. Barbados' greenhouse gas emissions are low, contributing to less than 0.01 percent of the global total. Emissions mainly come from energy and domestic transport (73.7 percent), waste (14.9 percent), industrial processes (8.5 percent) and agriculture (3.0 percent). Land use, land use change and forestry provide a sink of greenhouse gas emissions of 51 Gg CO_2e in 2010, equivalent to a reduction of 2.6 percent of total emissions for that year.[2]

3. Barbados's ability to address the challenges posed by climate change is enhanced by its relatively high level of economic development but adversely affected by its small size and the high costs of this undertaking. The country has a population of 287,000 and a per capita gross national income of US$16,720, as of 2021. Barbados experienced several decades of solid economic growth, which led to an improvement in key social indicators, such as life expectancy, and enhanced its capabilities for handling any development challenges. However, as a small open economy, Barbados is highly vulnerable to exogenous economic shocks which are increasingly likely to compound due to climate change, leading to increasing and severe socio-economic costs in the absence of reforms and adaptation measures. At the same time, critical investments tend to be very costly as a share of gross domestic product given the small size of its economy. Despite improvements since 2018, its fiscal space is limited and attracting private financing has been challenging. Such investments are also critical to help Barbados reduce its dependence on fossil fuels and exposure to their price variability, with gains for climate change mitigation and for the country's ability to implement climate change adaptation measures.

B. Government Policies and Commitments in Terms of Climate Change Adaption and Priority Areas to Strengthen Resilience

4. The Government of Barbados integrated climate change adaptation efforts into its policy framework and sector policies. By taking a holistic approach and integrating a public investment program with climate change resilience considerations, Barbados is effectively aligning climate change related targets and development objectives. Implementation of the Barbados Economic Recovery and Transformation (BERT) Plan since 2018 helped the country to enhance its debt sustainability, which is critical for increasing the fiscal space needed to implement public investment programs supporting adaptation to climate change. The *2021 Physical Development Plan* (PDP) sets out policies and strategies to guide land use, settlement patterns, infrastructure and environmental management that seek to enhance resilience under changing climate conditions. The *2021 Roofs to Reefs Programme* (R2RP) operationalizes the PDP and directs public investment. In addition, Barbados has

[2] Barbados. National Communication (NC). NC 2. https://unfccc.int/documents/183387

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adopted, or is in the process of adopting and updating, several sector policies and regulations that include climate change adaptation considerations, including: (i) the Water Reuse Policy; (ii) the Integrated Coastal Zone Management Plan; (iii) the Comprehensive Disaster Risk Management (DRM) Policy; (iv) the Climate Change and Agriculture Policy; (v) the Plumbing Act, which follows a rainwater harvesting strategy; (vi) the Marine Pollution Control Act; and (vii) the approved List of Pollutants with their Prohibited Concentration Levels. Barbados is also operating a Catastrophe Fund, which is intended to provide financial aid to eligible persons and qualifying businesses in need of such aid as a result of, *inter alia*, climate-induced natural disasters. The government has recently taken steps to enhance resilience of the insurance industry to natural disasters by requiring that all domestic insurers run annual natural disaster stress tests. During the COVID-19 pandemic, the government provided financial assistance to the tourism sector conditional on design and implementation by participating firms of Greening and Digitization Investment Plans, which help to increase their resilience to climate change.

C. Government Policies and Commitments in Terms of Climate Change Mitigation and Priority Areas to Reduce Greenhouse Gas Emissions

5. The Government of Barbados is taking important steps towards sustainable and low carbon transformation of economic and social systems. In its updated nationally determined contributions, Barbados committed to a 20 percent reduction relative to business-as-usual emissions by 2025 without international support (unconditional), and a 35 percent reduction relative to the business-as-usual emissions by 2025 conditional upon international support. By 2030, Barbados committed to a 35 percent reduction relative to business-as-usual emissions without international support (unconditional), and to a 70 percent reduction relative to business-as-usual emissions conditional upon international support. In addition, with the 2019 Barbados National Energy Policy (BNEP), the government signaled its commitment to a clean energy future by setting the target of a fossil fuel-free electricity sector by 2030. However, although BNEP's goal of 100 percent renewable electricity to be attained by 2030 is generally realistic, significant additional investments are needed to achieve this goal. To this end, a draft Integrated Resource and Resilience Plan (IRRP) that will guide implementation of the BNEP in the electricity sector is currently under discussion. The government is also committed to a fossil fuel-free transport sector. Effective April 2021, the government's procurement policy was set to prioritize the purchase of electric or hybrid vehicles where possible, and the Barbados Transport Board's objective is to operate a fully electrified fleet by 2030. The government is also planning to reduce taxes on electric vehicles and to develop regulations related to green procurement, which are efforts that have the dual benefit of both strengthening the country's climate resilience as well as contributing to its mitigation efforts. Lastly, the government is also ensuring that climate change mitigation and adaptation policies are aligned, as illustrated in the R2RP. Not only will actions in the R2RP result in a more resilient housing stock, through roof fortification and retrofitting aimed to withstand up to Category 4 hurricanes, distributed electricity generation will shorten post-disaster recovery time. Similarly, under R2RP, protocols and standards for renewable energy installations for

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rooftops will be developed and include recommended options for energy storage technology, given that distributed clean energy generation is more resilient when it is coupled with battery storage in the same location.

D. Other Challenges

6. Like other Small Island Economies (SIEs), in decarbonizing its economy and making it climate resilient, Barbados is facing challenges related to institutional capacity and coordination needs. Given the nature of climate change and the required response in this regard, there is room to strengthen multi-sectoral coordination to support a well-functioning institutional framework and for achieving progress in specific sector policies. The same is true for the capacity to develop and implement laws and policies to operationalize the government's strategic documents. Further increase in fiscal space would help to scale up climate action by bridging the financing gap. Scaling up may also require innovative approaches to address environmental degradation and climate change, including through the establishment of an Environmental Sustainability Fund. Such a fund could supplement government financing, as well as serve as a vehicle for implementing Barbados's NDC, which specifically calls for scaled-up, new, additional, and predictable financial resources for climate World Bank Engagement in the Area of Climate Change

E. World Bank Engagement in the Area of Climate Change

7. The World Bank's engagement in Barbados, as an IBRD graduate, has been limited. The World Bank is supporting Barbados's climate agenda most recently through the COVID-19 Response and Recovery Development Policy Loan (DPL), including in the areas of improved DRM, decarbonization of the tourism sector, and enhanced disaster and climate resilience of the insurance industry. The World Bank also provided technical assistance to the Financial Services Commission in FY 2022. In the Green and Resilient Recovery DPL, which was approved in January 2023, the World Bank is also supporting the government's ambitious climate reform program which cuts across several sectors and policy areas (including agriculture, DRM, public expenditure management, transport, water, energy, and marine conservation). This operation and RSF program of the International Monetary Fund (IMF) were developed in close collaboration between the World Bank and the IMF teams.

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Annex 503

"OECD Recommendation on Guiding Principles concerning International Economic Aspects of Environmental Policies", OECD/LEGAL/0102, *OECD,* 26 May 1972

Recommendation of the Council on Guiding Principles concerning International Economic Aspects of Environmental Policies



OECD Legal Instruments

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Background Information

The Recommendation on Guiding Principles concerning International Economic Aspects of Environmental Policies as adopted by the OECD Council on 26 May 1972 on the proposal of the Environment Policy Committee. The Recommendation recommends that Adherents, in determining environmental control policies and measures, observe the Guiding Principles Concerning the International Economic Aspects of Environmental Policies set forth in the Annex to this Recommendation. These Guiding Principles introduce the Polluter-Pays Principle and the economic and trade implications of environmental policies.

THE COUNCIL,

HAVING REGARD to Article 5 b) of the Convention on the Organisation for Economic Co-operation and Development of 14 December 1960;

HAVING REGARD to the Resolution of the Council of 22 July 1970 establishing an Environment Committee [C(70)135];

HAVING REGARD to the Report by the Environment Committee on Guiding Principles Concerning the International Economic Aspects of Environmental Policies [C(72)69];

HAVING REGARD to the views expressed by interested Committees;

HAVING REGARD to the Note by the Secretary-General [C(72)122(Final)];

I. RECOMMENDS that the Governments of Member countries should, in determining environmental control policies and measures, observe the Guiding Principles Concerning the International Economic Aspects of Environmental Policies set forth in the Annex to this Recommendation.

II. INSTRUCTS the Environment Committee to review as it deems appropriate the implementation of this Recommendation.

III. INSTRUCTS the Environment Committee to recommend as soon as possible the adoption of appropriate mechanisms for notification and/or consultation or some other appropriate form of action.

ANNEX

GUIDING PRINCIPLES CONCERNING THE INTERNATIONAL ECONOMIC ASPECTS OF ENVIRONMENTAL POLICIES

Introduction

1. The guiding principles described below concern mainly the international aspects of environmental policies with particular reference to their economic and trade implications. These principles do not cover, for instance, the particular problems which may arise during the transitional periods following the implementation of the principles, instruments for the implementation of the so-called "Polluter-Pays Principle", exceptions to this principle, transfrontier pollution, or possible problems related to developing countries.

A. Guiding Principles

a) Cost Allocation: the Polluter-Pays Principle

2. Environmental resources are in general limited and their use in production and consumption activities may lead to their deterioration. When the cost of this deterioration is not adequately taken into account in the price system, the market fails to reflect the scarcity of such resources both at the national and international levels. Public measures are thus necessary to reduce pollution and to reach a better allocation of resources by ensuring that prices of goods depending on the quality and/or quantity of environmental resources reflect more closely their relative scarcity and that economic agents concerned react accordingly.

3. In many circumstances, in order to ensure that the environment is in an acceptable state, the reduction of pollution beyond a certain level will not be practical or even necessary in view of the costs involved.

4. The principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment is the so-called "Polluter-Pays Principle". This principle means that the polluter

should bear the expenses of carrying out the above-mentioned measures decided by public authorities to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption. Such measures should not be accompanied by subsidies that would create significant distortions in international trade and investment.

5. This Principle should be an objective of Member countries; however, there may be exceptions or special arrangements, particularly for the transitional periods, provided that they do not lead to significant distortions in international trade and investment.

b) Environmental Standards

6. Differing national environmental policies, for example with regard to the tolerable amount of pollution and to quality and emission standards, are justified by a variety of factors including among other things different pollution assimilative capacities of the environment in its present state, different social objectives and priorities attached to environmental protection and different degrees of industrialisation and population density.

7. In view of this, a very high degree of harmonisation of environmental policies which would be otherwise desirable may be difficult to achieve in practice; however it is desirable to strive towards more stringent standards in order to strengthen environmental protection, particularly in cases where less stringent standards would not be fully justified by the above-mentioned factors.

8. Where valid reasons for differences do not exist, Governments should seek harmonisation of environmental policies, for instance with respect to timing and the general scope of regulation for particular industries to avoid the unjustified disruption of international trade patterns and of the international allocation of resources which may arise from diversity of national environmental standards.

9. Measures taken to protect the environment should be framed as far as possible in such a manner as to avoid the creation of non-tariff barriers to trade.

10. Where products are traded internationally and where there could be significant obstacles to trade, Governments should seek common standards for polluting products and agree on the timing and general scope of regulations for particular products.

National Treatment and Non-discrimination

11. In conformity with the provisions of the GATT, measures taken within an environmental policy, regarding polluting products, should be applied in accordance with the principle of national treatment (i.e. identical treatment for imported products and similar domestic products) and with the principle of non-discrimination (identical treatment for imported products regardless of their national origin).

Procedures of Control

12 It is highly desirable to define in common, as rapidly as possible, procedures for checking conformity to product standards established for the purpose of environmental control. Procedures for checking conformity to standards should be mutually agreed so as to be applied by an exporting country to the satisfaction of the importing country.

Compensating Import Levies and Export Rebates

13. In accordance with the provisions of the GATT, differences in environmental policies should not lead to the introduction of compensating import levies or export rebates, or measures having an equivalent effect, designed to offset the consequences of these differences on prices. Effective implementation of the guiding principles set forth herewith will make it unnecessary and undesirable to resort to such measures.

B. Consultations

14. Consultations on the above mentioned principles should be pursued. In connection with the application of these guiding principles, a specific mechanism of consultation and/or notification or some other appropriate form of action should be determined as soon as possible taking into account the work done by other international organisations.

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- **Recommendations** are adopted by Council and are not legally binding. They represent a political commitment to the principles they contain and entail an expectation that Adherents will do their best to implement them.

- **Substantive Outcome Documents** are adopted by the individual listed Adherents rather than by an OECD body, as the outcome of a ministerial, high-level or other meeting within the framework of the Organisation. They usually set general principles or long-term goals and have a solemn character.

- **International Agreements** are negotiated and concluded within the framework of the Organisation. They are legally binding on the Parties.

- **Arrangement, Understanding and Others**: several other types of substantive legal instruments have been developed within the OECD framework over time, such as the Arrangement on Officially Supported Export Credits, the International Understanding on Maritime Transport Principles and the Development Assistance Committee (DAC) Recommendations.

Annex 504

"OECD Recommendation of the Council on the Implementation of the Polluter-Pays Principle", OECD/LEGAL/0132, *OECD,* 14 November 1974

Recommendation of the Council on the Implementation of the Polluter-Pays Principle



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Background Information

The Recommendation on the Implementation of the Polluter-Pays Principle was adopted by the OECD Council on 14 November 1974 on the proposal of the Environment Committee (now called Environment Policy Committee). The Polluter-Pays Principle was adopted by the OECD Council in 1972 in its Recommendation on Guiding Principles Concerning International Economic Aspects of Environmental Policies as an economic principle for allocating the costs of pollution control. The 1974 Recommendation provides that the principle represents for the Adherents the basic principle for the allocation of costs for pollution prevention and control measures implemented by public authorities in Adhering States. It further elaborates the circumstances in which government assistance would be considered compatible with the principle and recommends conditions to the granting of government assistance in bearing the costs of pollution control whether by means of subsidies, tax advantages or other measures.

THE COUNCIL,

HAVING REGARD to Article 5 b) of the Convention on the Organisation for Economic Co-operation and Development of 14 December 1960;

HAVING REGARD to the provisions of the General Agreement on Tariffs and Trade;

HAVING REGARD to the Recommendation of the Council of 26 May 1972 on Guiding Principles concerning International Economic Aspects of Environmental Policies [C(72)128];

HAVING REGARD to the Note by the Environment Committee on Implementation of the Polluter-Pays Principle [ENV(73)32(Final)];

HAVING REGARD to the possibility, approved by the Council, of holding informal consultations on the Guiding Principles within the OECD [C/M(74)16(Final), Item 157];

On the proposal of the Environment Committee;

I. REAFFIRMS that:

1. The Polluter-Pays Principle constitutes for Member countries a fundamental principle for allocating costs of pollution prevention and control measures introduced by the public authorities in Member countries.

2. The Polluter-Pays Principle, as defined by the Guiding Principles concerning International Economic Aspects of Environmental Policies [C(72)128], which take account of particular problems possibly arising for developing countries, means that the polluter should bear the expenses of carrying out the measures, as specified in the previous paragraph, to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption.

3. Uniform application of this principle, through the adoption of a common basis for Member countries' environmental policies, would encourage the rational use and the better allocation of scarce environmental resources and prevent the appearance of distortions in international trade and investment.

II. NOTES that:

1. There is a close relationship between a country's environmental policy and its overall socio-economic policy;

2. In exceptional circumstances, such as the rapid implementation of a compelling and especially stringent pollution control regime, socio-economic problems may develop of such significance as to justify consideration of the granting of governmental assistance, if the environmental policy objectives of a Member country are to be realised within a prescribed and specific time;

3. Aid given for the purpose of stimulating experimentation with new pollution-control technologies and development of new pollution-abatement equipment is not necessarily incompatible with the Polluter-Pays Principle;

4. Where measures taken to promote a country's specific socio-economic objectives, such as the reduction of serious interregional imbalances, would have the incidental effect of constituting aid for pollution-control purposes, the granting of such aid would not be inconsistent with the Polluter-Pays Principle.

III. RECOMMENDS that:

1. Member countries continue to collaborate and work closely together in striving for uniform observance of the Polluter-Pays Principle, and therefore that as a general rule they should not assist

the polluters in bearing the costs of pollution control whether by means of subsidies, tax advantages or other measures;

2. The granting of any such assistance for pollution control be strictly limited, and in particular comply with every one of the following conditions:

a) It should be selective and restricted to those parts of the economy, such as industries areas or plants, where severe difficulties would otherwise occur;

b) It should be limited to well-defined transitional periods, laid down in advance and adapted to the specific socio-economic problems associated with the implementation of a country's environmental programme;

c) It should not create significant distortions in international trade and investment;

3. If a Member country, in cases of exceptional difficulty, gives assistance to new plants, the conditions be even stricter than those applicable to existing plants and that criteria on which to base this differentiation be developed;

4. In accordance with appropriate procedures to be worked out, all systems to provide assistance be notified to Member countries through the OECD Secretariat. Wherever practicable these notifications would occur prior to implementation of such systems;

5. Regardless of whether notification has taken place, consultations, as mentioned in the Guiding Principles [C(72)128] on the implementation of such systems, will take place at the request of any Member State.

IV. INVITES the Environment Committee to report to the Council on action taken pursuant to this Recommendation.

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- **Recommendations** are adopted by Council and are not legally binding. They represent a political commitment to the principles they contain and entail an expectation that Adherents will do their best to implement them.

- **Substantive Outcome Documents** are adopted by the individual listed Adherents rather than by an OECD body, as the outcome of a ministerial, high-level or other meeting within the framework of the Organisation. They usually set general principles or long-term goals and have a solemn character.

- **International Agreements** are negotiated and concluded within the framework of the Organisation. They are legally binding on the Parties.

- **Arrangement, Understanding and Others**: several other types of substantive legal instruments have been developed within the OECD framework over time, such as the Arrangement on Officially Supported Export Credits, the International Understanding on Maritime Transport Principles and the Development Assistance Committee (DAC) Recommendations.

Annex 505

"OECD Recommendation concerning the Application of the Polluter-Pays Principle to Accidental Pollution", OECD/LEGAL/0251, *OECD,* 7 July 1989

Recommendation of the Council concerning the Application of the Polluter-Pays Principle to Accidental Pollution



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Background Information

The Recommendation concerning the Application of the Polluter-Pays Principle to Accidental Pollution was adopted by the OECD Council on 7 July 1989 on the proposal of the Environment Committee. The Recommendation calls on Adherents to apply the Polluter-Pays Principle (PPP) in the case of accidental pollution at “hazardous installations”. Most importantly, this implies that the costs of reasonable measures to prevent and control the accidental pollution should be borne by the operators of the hazardous facilities or by those who are at the origin of the accident. The Recommendation recognises that in order for accident prevention to be more effective, neither the risk nor the consequences of accidental pollution should be paid from public funds.

THE COUNCIL,

HAVING REGARD to Article 5 b) of the Convention on the Organisation for Economic Co-operation and Development of 14 December 1960;

HAVING REGARD to the Recommendation of the Council of 26 May 1972 on Guiding Principles Concerning International Economic Aspects of Environmental Policies [C(72)128];

HAVING REGARD to the Recommendation of the Council of 14 November 1974 on the Implementation of the Polluter-Pays Principle [C(74)223];

HAVING REGARD to the Recommendation of the Council of 28 April 1981 on Certain Financial Aspects of Action by Public Authorities to Prevent and Control Oil Spills [C(81)32(Final)];

HAVING REGARD to the Concluding Statement of the OECD Conference on Accidents Involving Hazardous Substances held in Paris on 9 and 10 February 1988 [C(88)83];

CONSIDERING that this Conference concluded that "operators of hazardous installations have the full responsibility for the safe operation of their installations and for taking all appropriate measures to prevent accidents" and that "operators of hazardous installations should take all reasonable measures... to take emergency actions in case of an accident";

CONSIDERING that such responsibility has repercussions on the allocation of the cost of reasonable measures aimed at preventing accidents in hazardous installations and limiting their consequences and that the Conference concluded that "the Polluter-Pays Principle should be applied, as far as possible, in connection with accidents involving hazardous substances";

CONSIDERING that public authorities are often required to take expensive action in case of accidental pollution from hazardous installations and may find it necessary to undertake costly accident preparedness measures in relation to certain hazardous installations;

CONSIDERING that closer harmonisation of laws and regulations relating to the allocation of the cost of measures to prevent and control accidental pollution is likely to reduce distortions in international trade and investment;

On the proposal of the Environment Committee;

I. RECOMMENDS that, in applying the Polluter-Pays Principle in connection with accidents involving hazardous substances, Member countries take into account the "Guiding Principles Relating to Accidental Pollution" set out in the Appendix which is an integral part of this Recommendation.

II. INSTRUCTS the Environment Committee to review the actions taken by Member countries pursuant to this Recommendation and to report to the Council within three years of the adoption of this Recommendation.

APPENDIX

GUIDING PRINCIPLES RELATING TO ACCIDENTAL POLLUTION

Scope and Definition

1. The Guiding Principles described below concern some aspects of the application of the Polluter-Pays Principle to hazardous installations.

2. For the purposes of this Recommendation:

   a) "Hazardous installations" means those fixed installations which are defined under applicable law as being capable of giving rise to hazards sufficient to warrant the taking of precautions off-site, excluding nuclear or military installations and hazardous waste repositories[1];

   b) "Accidental pollution" means substantial pollution off-site resulting from an accident in a hazardous installation;

   c) "Operator of a hazardous installation" means the legal or natural person who under applicable law is in charge of the installation and is responsible for its proper operation[2].

The Polluter-Pays Principle

3. According to the Recommendation of the Council of 26 May 1972, on the Guiding Principles Concerning International Economic Aspects of Environmental Policies [C(72)128] the "Principle to be used for allocating the costs of pollution prevention and control is the so called Polluter-Pays Principle". The implementation of this principle will "encourage rational use of scarce environmental resources". According to the Recommendation of the Council of 14 November 1974 on the Implementation of the Polluter-Pays Principle [C(74)223] "the Polluter-Pays Principle... means that the polluter should bear the expenses of carrying out the pollution prevention and control measures introduced by public authorities in Member countries, to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption". In the same Recommendation the Council recommended that, "as a general rule, Member countries should not assist the polluters in bearing the costs of pollution control whether by means of subsidies, tax advantages or other measures".

Application of the Polluter-Pays Principle

4. In matters of accidental pollution risks, the Polluter-Pays Principle implies that the operator of a hazardous installation should bear the cost of reasonable measures to prevent and control accidental pollution from that installation which are introduced by public authorities in Member countries in conformity with domestic law prior to the occurrence of an accident in order to protect human health or the environment.

5. Domestic law which provides that the cost of reasonable measures to control accidental pollution after an accident should be collected as expeditiously as possible from the legal or natural person who is at the origin of the accident, is consistent with the Polluter-Pays Principle.

6. In most instances and notwithstanding issues concerning the origin of the accident, the cost of such reasonable measures taken by the authorities is initially borne by the operator for administrative convenience or for other reasons[3]. When a third party is liable for the accident, that party reimburses to the operator the cost of reasonable measures to control accidental pollution taken after an accident.

7. If the accidental pollution is caused solely by an event for which the operator clearly cannot be considered liable under national law, such as a serious natural disaster that the operator cannot reasonably have foreseen, it is consistent with the Polluter-Pays Principle that public authorities do not charge the cost of control measures to the operator.

8. Measures to prevent and control accidental pollution are those taken to prevent accidents in specific installations and to limit their consequences for human health or the environment. They can include, in particular, measures aimed at improving the safety of hazardous installations and accident preparedness, developing emergency plans, acting promptly following an accident in order to protect human health and the environment, carrying out clean-up operations and minimizing without undue delay the ecological effects of accidental pollution. They do not include humanitarian measures or other measures which are strictly in the nature of public services and which cannot be reimbursed to the public authorities under applicable law, nor measures to compensate victims for the economic consequences of an accident.

9. Public authorities of Member countries that "have responsibilities in the implementation of policies for prevention of, and response to, accidents involving hazardous substances"[4], may take specific measures to prevent accidents occuring at hazardous installations and to control accidental pollution. Although the cost entailed is as a general rule met by the general budget, public authorities may, with a view to achieving a more economically efficient resource allocation, introduce specific fees or taxes payable by certain installations on account of their hazardous nature (e.g. licensing fees), the proceeds of which are to be allocated to accidental pollution prevention and control.

10. One specific application of the Polluter-Pays Principle consists in adjusting these fees or taxes, in conformity with domestic law, to cover more fully the cost of certain exceptional measures to prevent and control accidental pollution in specific hazardous installations which are taken by public authorities to protect human health and the environment (e.g. special licensing procedures, execution of detailed inspections, drawing up of installation-specific emergency plans or building up special means of response for the public authorities to be used in connection with a hazardous installation), provided such measures are reasonable and directly connected with accident prevention or with the control of accidental pollution released by the hazardous installation. Lack of laws or regulations on relevant fees or taxes should not, however, prevent public authorities from meeting their responsibilities in connection with accidents involving hazardous substances.

11. A further specific application of the Polluter-Pays Principle consists in charging, in conformity with domestic law, the cost of reasonable pollution control measures decided by the authorities following an accident to the operator of the hazardous installation from which pollution is released. Such measures taken without undue delay by the operator or, in case of need, by the authorities would aim at promptly avoiding the spreading of environmental damage and would concern limiting the release of hazardous substances (e.g., by ceasing emissions at the plant, by erecting floating barriers on a river), the pollution as such (e.g., by cleaning or decontamination), or its ecological effects (e.g., by rehabilitating the polluted environment).

12. The extent to which prevention and control measures can be considered reasonable will depend on the circumstances under which they are implemented, the nature and extent of the measures, the threats and hazards existing when the decision is taken, the laws and regulations in force, and the interests which must be protected. Prior consultation between operators and public authorities should contribute to the choice of measures which are reasonable, economically efficient, and provide adequate protection of human health and the environment.

13. The pooling among operators of certain financial risks connected with accidents, for instance by means of insurance or within a special compensation or pollution control fund, is consistent with the Polluter-Pays Principle.

Exceptions

14. Exceptions to the Polluter-Pays Principle could be made under special circumstances such as the need for the rapid implementation of stringent measures for accident prevention, provided this does not lead to significant distortions in international trade and investment. In particular, any aid to be granted to operators for prevention or control of accidental pollution should be limited and comply with the conditions set out previously[5]. In the case of existing hazardous installations, compensatory payments or measures for changes in zoning decisions in the framework of the local land use plan might be envisaged with a view to facilitating the relocation of these installations so as to lessen the risks for the exposed population.

15. Likewise, exceptions to the above Guiding Principles could be made in the event of accidental pollution if strict and prompt implementation of the Polluter-Pays Principle would lead to severe socio-economic consequences.

16. The allocation to the person at the origin of the accident or the operator, as the case may be, of the cost of reasonable measures taken by public authorities to control accidental pollution does not affect the possibility under domestic law of requiring the same person to pay other costs connected with the public authorities' response to an accident (e.g., the supply of potable water) or with the occurrence of the accident. In addition, public authorities may, as appropriate, seek compensation from the party liable for the accident for costs incurred by them as a result of the accident when such costs have not yet been paid to the authorities.

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[1] Hazardous installations covered by this Recommendation are as defined in the law applicable in the country of the installation (domestic law and in some instances, European Community law). Countries are not prevented from making provisions under their national laws to the effect that the Guiding Principles also apply to installations excluded under subparagraph 2 a) of this Appendix.

[2] The concept of operator is defined in the law applicable in the country of the installation, in which attention may be given to criteria such as ownership of certain hazardous substances or possession of a license or permit.

[3] In cases where a party other than the operator has, under the law applicable in the country of the installation, strict liability for an accident, the cost of reasonable control measures taken by the authorities would be charged to that party, not to the operator. Whenever national laws provide a regime of strict liability, this regime would be applied in respect of the reimbursement of costs of control measures taken after the accident.

[4] Concluding Statement of the OECD Conference on Accidents Involving Hazardous Substances, C(88)83.

[5] Recommendation of the Council of 14 November 1974 on the Implementation of the Polluter Pays Principle [C(74)223].

About the OECD

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD Member countries are: Australia, Austria, Belgium, Canada, Chile, Colombia, Costa Rica, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Lithuania, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Türkiye, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Legal Instruments

Since the creation of the OECD in 1961, around 460 substantive legal instruments have been developed within its framework. These include OECD Acts (i.e. the Decisions and Recommendations adopted by the OECD Council in accordance with the OECD Convention) and other legal instruments developed within the OECD framework (e.g. Declarations, international agreements).

All substantive OECD legal instruments, whether in force or abrogated, are listed in the online Compendium of OECD Legal Instruments. They are presented in five categories:

- **Decisions** are adopted by Council and are legally binding on all Members except those which abstain at the time of adoption. They set out specific rights and obligations and may contain monitoring mechanisms.

- **Recommendations** are adopted by Council and are not legally binding. They represent a political commitment to the principles they contain and entail an expectation that Adherents will do their best to implement them.

- **Substantive Outcome Documents** are adopted by the individual listed Adherents rather than by an OECD body, as the outcome of a ministerial, high-level or other meeting within the framework of the Organisation. They usually set general principles or long-term goals and have a solemn character.

- **International Agreements** are negotiated and concluded within the framework of the Organisation. They are legally binding on the Parties.

- **Arrangement, Understanding and Others**: several other types of substantive legal instruments have been developed within the OECD framework over time, such as the Arrangement on Officially Supported Export Credits, the International Understanding on Maritime Transport Principles and the Development Assistance Committee (DAC) Recommendations.

Annex 506

"International energy technology collaboration and climate change mitigation",
OECD Environment Directorate & International Energy Agency,
COM/ENV/EPOC/IEA/SLT(2004)1, 2004, pages 21-25

COM/ENV/EPOC/IEA/SLT(2004)1

OECD ENVIRONMENT DIRECTORATE
INTERNATIONAL ENERGY AGENCY

INTERNATIONAL ENERGY TECHNOLOGY COLLABORATION AND CLIMATE CHANGE MITIGATION

Cédric Philibert
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Organisation for Economic Co-operation and Development 2004
International Energy Agency
Organisation de Coopération et de Développement Economiques
Agence internationale de l'énergie

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FOREWORD

This document was prepared by the OECD and IEA Secretariats at the request of the Annex I Expert Group on the United Nations Framework Convention on Climate Change. The Annex I Expert Group oversees development of analytical papers for the purpose of providing useful and timely input to the climate change negotiations. These papers may also be useful to national policy makers and other decision-makers. In a collaborative effort, authors work with the Annex I Expert Group to develop these papers. However, the papers do not necessarily represent the views of the OECD or the IEA, nor are they intended to prejudge the views of countries participating in the Annex I Expert Group. Rather, they are Secretariat information papers intended to inform Member countries, as well as the UNFCCC audience.

The Annex I Parties or countries referred to in this document refer to those listed in Annex I to the UNFCCC (as amended at the 3rd Conference of the Parties in December 1997): Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Croatia, Czech Republic, Denmark, the European Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, and United States of America. Korea and Mexico, as new OECD member countries, also participate in the Annex I Expert Group. Where this document refers to "countries" or "governments", it is also intended to include "regional economic organisations", if appropriate.

ACKNOWLEDGEMENTS

Cédric Philibert at the International Energy Agency prepared this paper for discussion at an AIXG seminar on future developments under the Convention with the participation of various representatives of non-Annex I countries. The author thanks Marianne Haug, Rick Bradley, Nicolas Lefevre, William Blyth and Jenny Gell at the IEA, and Jan Corfee Morlot, Stephen Bygrave, Cristina Tebar Less and Jane Ellis at the OECD, as well as several Annex I and non-Annex I experts, for the information, comments and ideas they provided.

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3.2.4 The Marrakech Funds

The Marrakech Accords created a Special Climate Change Fund under the Convention to provide additional assistance for adaptation, technology transfer, energy, transport, industry, agriculture, forestry, and waste management, and broad-based economic diversification. A Least Developed Countries Fund was also established under the Convention, while an Adaptation Fund was established under the Kyoto Protocol. Previously in Bonn, at COP-6 bis, a number of countries (the EU, Canada, Norway, New Zealand, Switzerland and Iceland) made a political statement that they would provide a minimum of US$ 410 million per year for climate change activities – including their climate contribution to the GEF. Recently, the Parties to the Convention agreed that the Special Climate Fund should serve as a catalyst to leverage additional resources from bilateral and multilateral sources. There was also agreement that top priority should be given to funding of adaptation activities to address the adverse impacts of climate change from the resources of the SCCF; and that technology transfer and its associated capacity building was also important.

However, these new funds were created in a context of increasing scarcity of public spending in most OECD countries. Many observers believe that while it will help to finance capacity building at national levels, it will never be large enough to finance the costs associated with the profound changes in the energy sector required to promote development while reducing global emissions. This scepticism is also fuelled by the decline in Official Development Assistance mentioned earlier.

3.2.5 The flexibility mechanisms

While the primary incentive for technology development is likely to come from the establishment of "caps" on emissions at both country and firm levels, emissions trading is more likely to encourage technology diffusion than innovation. By reducing the equilibrium permit price, trading per se tends to reduce the incentive for firms to innovate that arises from restricting emissions.

However, flexibility mechanisms such as those in Articles 6, 12 and 17 of the Kyoto Protocol are likely to encourage the diffusion of cleaner technologies. The technology transfer dimension of the Clean Development Mechanism is now well-recognised by most experts and countries – although developing country representatives rarely miss an opportunity to recall, as China did that "*The CDM under the Kyoto Protocol should have a component of technology transfer. However technology transfer under CDM should be additional to the commitments of the Annex II Parties under the relevant provisions of the Convention on technology transfer."* (FCCC/SBSTA/misc02)

What really makes the CDM additional to countries' efforts, however, is its ability to raise private instead of public money and to encourage technology transfer directly from the private sector. It is still unclear, however, if the CDM will have much leverage power (see, e.g., Philibert, 2003; Ellis et al., 2004). Governments of some industrialised countries may also end up being important players in this field.

3.3 The IEA experience

Since its creation in 1974, the International Energy Agency (IEA) has provided a structure for international co-operation in energy technology research and development (R&D) and deployment. Its purpose is to bring together experts in specific technologies who wish to address common challenges jointly and share the fruit of their efforts. Within its structure, there are currently more than 40 active programmes, known as the IEA Implementing Agreements. Almost three decades of experience have shown that these Agreements are contributing significantly to achieve faster technological progress and innovation at lower costs. Such international co-operation helps to eliminate technological risks and duplication of efforts, while facilitating processes like harmonisation of standards.

Box 2: The IEA Framework for Implementing Agreements

The IEA Implementing Agreements represent a successful form of international energy technology collaboration which has existed almost since the Agency's inception.

An implementing agreement (IA) is a contractual relationship established by at least two IEA member countries and approved by the Governing Board, with the purpose to help them carry out programmes and projects on energy technology research, development and deployment. Implementing agreements gather Contracting Parties but also Sponsors.

Contracting Parties may be the governments of both OECD member and OECD non-member countries; the European Communities; international organisations in which the governments of OECD member countries and/or OECD non-member countries participate; and any national agency, public organisation, private corporation or other entity designated by the government of an OECD member country or an OECD non-member country, or by the European Communities. Sponsors may be entities of OECD member countries or OECD non-member countries that are not designated by the governments of their respective countries to participate in a particular Implementing Agreement; and non-intergovernmental international entities in which one or more entities of OECD member countries or OECD non-member countries participate.

These rules are based on the *IEA Framework for Implementing Agreements*, which was adopted in 2003. The Framework replaces the "Guiding Principles" adopted in 1975, as a result of the willingness of Ministers from IEA member countries to expand the energy dialogue with key OECD non-member countries and to encourage industry to participate in energy research, development and demonstration.

Thirty-seven countries participate in 42 Implementing Agreements. Six IAs concern fossil fuel energy, including clean coal and carbon dioxide capture and storage. Nine IAs relate to nuclear fusion power. Eight agreements promote R&D on renewable energy sources, as well hydrogen production and use. Fourteen IAs are devoted to end-use efficiency improvements in transportation, industry and building. An extensive description of the work conducted under Implementing Agreements can be found at: *http://www.iea.org/techno*. The appendix highlights some of the most recent achievements.

The adoption of the *IEA Framework for Implementing Agreements* in 2003 (see Box 3) is intended to facilitate participation from companies and from developing countries. Moreover, while most implementing agreements are focused on technology innovation and development, others are specifically designed to overcome a well known barrier to technology transfer, the lack of information. For example, EETIC (Energy and Environmental Technologies Information Centres) collects, analyses and enhances international exchange of impartial information on new, cost-effective, energy-saving technologies that have been demonstrated in applications in industry, buildings, transport, utilities and agriculture. To date, details on over 1,600 new, energy-saving technology applications have been published in EETIC Energy Efficiency products, as well as information on over 7,700 organisations worldwide involved with greenhouse gas mitigating technologies, contact details for suppliers of technologies, services, equipment, R&D, data and literature in the various categories of fossil fuel, renewable, energy transfer, industry, buildings, transportation, nuclear technologies, and agricultural & forestry practices.

IEA implementing agreements have a limited term that can be extended; however, their executive committees must take stock of their achievements, their forward strategies and their outreach activities each time that approval is sought from the IEA *Committee on Energy Research and Technology* (CERT) for a term extension.

3.4 The Climate Technology Initiative

At the first Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 1995, 23 OECD countries and the European Commission launched the Climate Technology Initiative (CTI). Its purpose was to accelerate development, application and diffusion of climate-friendly technologies and practices for all activities and greenhouse gases, cost-effective, environmentally sound production and end-use technologies. The CTI's work is closely linked to the UNFCCC process. The roots of the CTI grow from several articles in the UNFCCC that discuss commitments by Annex I countries in the field of technology transfer to developing countries.

Amongst many other accomplishments, the CTI published in 2001 "Technology without border – case studies of successful technology transfers" and in 2002 "*Methods for Climate Change Technology Transfer Needs Assessments and Implementing Activities: Experiences of Developing and Transition Countries"*. It also launched the Co-operative Technology Implementation plans (CTIP) to help prepare and implement technology transfer plans. A comprehensive list of actions undertaken by the CTI between 1995 and 2002 might be found on its website (http://www.climatetech.net/).

While shaped for promoting technology transfers to developing and transition economies, the CTI has also demonstrated the value of international collaboration between developed countries in this task. Rather than developing an important autonomous body of expertise, the CTI has used the expert capabilities of several technical institutions of its Member countries, notably the *National Renewable Energy Laboratory* of the US Department of Energy ; the Japanese *New Energy and Industrial Technology Development Organization*, UK's Department of Trade and Industry, Canada's *Natural Resources* and the *Greenhouse Response Branch* of the Australian Ministry of Industry, Tourism and Resources, as well as some bilateral programmes UN agencies such as UNIDO, UNDP and UNEP.

The IEA hosted the CTI Secretariat during the period from 1995 to 2002 and covered those activities that the CTI Board of Management chose to channel through the CTI Secretariat. The CTI Secretariat was financed through voluntary contributions to the IEA from 13 of the 23 CTI member countries. Japan was the only consistent contributor during the period from 1996 to 2002 with 46%, and the US contributed 31% of the voluntary contributions from 1999 to 2001. The balance of CTI activities was financed through in-kind contributions.

In 2003, the CTI decided to turn itself into a new implementing agreement – the first to be devoted to technology transfer. As of July 2003, Canada, Germany, Norway, the UK and the USA have committed themselves to become contracting parties to this new implementing agreement. Denmark and Japan joined soon thereafter."

3.5 Bilateral and other multilateral efforts

Describing or simply listing all governments' bilateral or multilateral efforts to develop international technology cooperation, including transfer, would be beyond the scope of this paper. Bilateral cooperation programmes are numerous, especially (but not exclusively) regarding technology transfer – and many examples can be found in national communications under the UNFCCC. UN agencies, such as UNDP, UNEP, UNIDO and others, as well as other multilateral agencies, such as the World Bank or the OECD, notably through its Development Assistance Committee, are also deeply involved in the transfer of technologies as is, though in a different manner, the World Trade Organisation.

Amongst other initiatives, it is worth quoting the US Climate Technology Partnership (CTP) – a continuation of the former Technology Cooperation Agreement Pilot Project (TCAPP), active in Brazil, China, Egypt, Korea, Mexico and Philippines. Both TCAPP and CTP have focused on identifying country-

driven technology priorities and assisting partner countries in implementing integrated market transformation strategies for these priority technologies. Other US programmes are designed to cooperate with one country (e.g., India) or one technology (e.g., coal bed methane). One may also mention the recent US initiative towards a new collaboration in the carbon dioxide capture and storage and hydrogen arenas – namely, the International Partnership on Hydrogen Economy (IPHE) and the Carbon Sequestration Leadership Forum (CSLF).

In the midst of bilateral and multilateral programmes there are also some relevant plurilateral arrangements – they do not gather almost all countries, as multilateral arrangements usually do (or are intended to do), but a more limited number, though superior to two. G8 is probably the most well-established "plurilateral" institution, and has considered climate change in various meetings and from various angles. For example, in 1999 the G8 Cologne Summit asked the Export Credit Agencies to harmonise their environmental policies and help developing countries address the challenge of climate change – as did the OECD Council at ministerial level in the same year. At the Evian Summit in 2003, the G8 went much farther and adopted an Action Plan on "Science and Technology for Sustainable Development". This document contains an important section devoted to energy technology (see Box 3).

Box 3: The G8 Action Plan

Action 2: Accelerate the research, development and diffusion of energy technologies

We will:

2.1 Promote energy efficiency of all sources and encourage the diffusion and uptake of advanced energy efficient technologies, taking pollution reduction into account. Possible measures include standards, public procurement, economic incentives and instruments, information and labelling;

2.2 Promote rapid innovation and market introduction of clean technologies, in both developed and developing countries, including at the Milan Conference of the Parties of the United Nations Framework Convention on Climate Change and beyond, at the International Energy Agency (IEA) and other international fora such as the UN Economic Commission for Europe, the Expert Group on Technology Transfer, etc, finding appropriate methodologies to involve the private sector;

2.3 Support efforts aimed at substantially increasing the share of renewable energy sources in global energy use:

- stimulate fundamental research in renewable energies, such as solar photovoltaics, off-shore wind energy, next generation wind turbines, wave/tidal and geothermal, biomass;
- collaborate on sharing research results, development and deployment of emerging technologies in this area;
- work towards making renewable energy technologies more price competitive;
- participate in the International Conference on Renewable Energies, spring 2004 in Bonn;

2.4 Accelerate the development of fuel cell and hydrogen technologies (power generation, transportation, hydrogen production, storage, distribution, end-use and safety):

- increase international co-operation and exchange of information in pre-competitive research based on the principle of full reciprocity through the IEA and other existing organisations;
- work with industry to remove obstacles to making fuel cell vehicles price competitive, striving to achieve this goal within two decades;
- accelerate developing internationally agreed codes and standards in appropriate existing organisations;
- work together to facilitate the use of hydrogen technologies in our and other markets, including through development of infrastructures;

2.5 Expand significantly the availability of and access to cleaner, more efficient fossil fuel technologies and

carbon sequestration systems and pursue joint research and development and expanded international co-operation, including demonstration projects;

2.6 Encourage the Global Environment Fund to include energy efficiency, renewables, cleaner fossil fuel technologies, and sustainable use of energy when setting up its programme;

2.7 Develop codes and standards for next generation vehicles, cleaner diesel and biodiesel, recognising that social needs for fuel quality are diverse among G8 countries;

2.8 In accordance with our national procedures, promote clean and efficient motor vehicles including next generation vehicles;

2.9 Work in consultation with industry to raise energy efficiency of electrical and electronic equipment;

2.10 We take note of the efforts of those G8 members who will continue to use nuclear energy, to develop more advanced technologies that would be safer, more reliable, and more resistant to diversion and proliferation.

It remains to be seen how this G8 Action Plan will provide effective additional action from the G8. However, one may note, amongst others, the intention to *"collaborate on development and deployment of emerging technologies"* and to *"accelerate developing internationally agreed codes and standards"* – two areas further developed in the next section.

4. STRENGTHENING INTERNATIONAL TECHNOLOGY COOPERATION

From the background discussion above, it seems that enhancing technological cooperation at all levels (from R&D to diffusion) can lead to benefits in terms of technological cost reductions as well as accelerated market penetration. It also seems that there is scope for improving technology collaboration in the area of climate change.

This section reviews four distinct fields for international technology cooperation and tries to find out:

i. If and how international trade and investment might be both strengthened and greened;

ii. If and how sharing learning investments might be conceived on a broader base;

iii. If and how more international collaboration on standards and norms might be useful;

iv. If and how flexibility mechanisms can be developed – in and beyond Kyoto.

4.1 Strengthening and greening international trade and investment

Although the last decade has witnessed significant emission reductions in some countries arising from economic recession, constraining economic development is by no means a viable option to mitigate climate change – especially in developing countries where poverty eradication is the number one priority. Increasing wealth and welfare, apart from being desirable per se, would also help countries better adapt to climate change impacts that are at least in part unavoidable.

Thus, further globalisation must be thought of more as a chance than a risk, even for climate mitigation purposes. Reinforcing and "greening" the framework for trade and investment can therefore play a key role in enhancing technology cooperation for mitigating climate change. As will be seen in this section, this may imply further market reforms in developing countries, as well as using appropriately the leverage power of Export Credit Agencies.

Annex 507

"OECD, Recommendation of the Council on Principles concerning Transfrontier Pollution", OECD/LEGAL/0133, *OECD*, 14 November 1974

Recommendation of the Council on Principles concerning Transfrontier Pollution



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OECD, *Recommendation of the Council on Principles concerning Transfrontier Pollution*, OECD/LEGAL/0133

Series: OECD Legal Instruments

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Background Information

The Recommendation on Principles concerning Transfrontier Pollution was adopted by the OECD Council on 14 November 1974 on the proposal of the Environment Committee (now called Environment Policy Committee). The Recommendation advises Adherents to include into environmental policies principles of international solidarity, non-discrimination, equal right of hearing, exchange of information and consultation, and early warning on transfrontier pollution.

THE COUNCIL,

HAVING REGARD to Article 5 b) of the Convention on the Organisation for Economic Co-operation and Development of 14 December 1960;

CONSIDERING that the protection and improvement of the environment are common objectives of Member countries;

CONSIDERING that the common interests of countries concerned by transfrontier pollution should induce them to co-operate more closely in a spirit of international solidarity and to initiate concerted action for preventing and controlling transfrontier pollution;

HAVING REGARD to the Recommendations of the United Nations Conference on the Human Environment held in Stockholm in June 1972 and in particular those Principles of the Declaration on the Human Environment which are relevant to transfrontier pollution;

On the proposal of the Environment Committee;

I. RECOMMENDS that, without prejudice to future developments in international law and international co-operation in relation to transfrontier pollution, Member countries should be guided in their environmental policy by the principles concerning transfrontier pollution contained in this Recommendation and its Annex, which is an integral part of this Recommendation.

II. INSTRUCTS the Environment Committee to prepare without delay, taking account of the work undertaken by other international organisations, a programme of work designed to elaborate further these principles and to facilitate their practical implementation.

III. RECOMMENDS Member countries to co-operate in developing international law applicable to transfrontier pollution.

IV. INSTRUCTS the Environment Committee, within the framework of its mandate, to examine or investigate further, as the case may be, the issues related to the Principles of the Stockholm Declaration regarding responsibility and liability, taking into account the work undertaken by other international organisations, to submit a first report to the Council on its work by 1 March 1976 and to seek to formulate as soon as possible Draft Recommendations.

V. INSTRUCTS the Environment Committee to investigate further the issues concerning equal right of hearing, to formulate as soon as possible Draft Recommendations and to report to the Council on its work by 1 July 1975.

ANNEX

SOME PRINCIPLES CONCERNING TRANSFRONTIER POLLUTION

Title A. Introduction

This Annex sets forth some principles designed to facilitate the development of harmonized environmental policies with a view to solving transfrontier pollution problems. Their implementation should be based on a fair balance of rights and obligations among countries concerned by transfrontier pollution.

These principles should subsequently be supplemented and developed in the light of work undertaken by the OECD or other appropriate international organisations.

For the purpose of these principles, pollution means the introduction by man, directly or indirectly, of substances or energy into the environment resulting in deleterious effects of such a nature as to endanger human health harm living resources and ecosystems, and impair or interfere with amenities and other legitimate uses of the environment.

Unless otherwise specified, these principles deal with pollution originating in one country and having effects within other countries.

Title B. International Solidarity

1. Countries should define a concerted long-term policy for the protection and improvement of the environment in zones liable to be affected by transfrontier pollution.

Without prejudice to their rights and obligations under international law and in accordance with their responsibility under Principle 21 of the Stockholm Declaration, countries should seek, as far as possible, an equitable balance of their rights and obligations as regards the zones concerned by transfrontier pollution.

In implementing this concerted policy, countries should among other things:

a) Take account of:

- Levels of existing pollution and the present quality of the environment concerned;
- The nature and quantities of pollutants;
- The assimilative capacity of the environment, as established by mutual agreement by the countries concerned, taking into account the particular characteristics and use of the affected zone;
- Activities at the source of pollution and activities and uses sensitive to such pollution;
- The situation, prospective use and development of the zones concerned from a socio-economic standpoint;

b) Define:

- Environmental quality objectives and corresponding protective measures;

c) Promote:

- Guidelines for a land-use planning policy consistent with the requirements both of environmental protection and socio-economic development;

d) Draw up and maintain up to date:

i) Lists of particularly dangerous substances regarding which efforts should be made to eliminate polluting discharges, if necessary by stages, and

ii) Lists of substances regarding which polluting discharges should be subject to very strict control.

2. Pending the definition of such concerted long-term policies countries should, individually and jointly, take all appropriate measures to prevent and control transfrontier pollution, and harmonize as far as possible their relevant policies.

3. Countries should endeavour to prevent any increase in transfrontier pollution, including that stemming from new or additional substances and activities, and to reduce, and as far as possible eliminate any transfrontier pollution existing between them within time limits to be specified.

Title C. Principle of Non-Discrimination

4. Countries should initially base their action on the principle of non-discrimination, whereby:

a) Polluters causing transfrontier pollution should be subject to legal or statutory provisions no less severe than those which would apply for any equivalent pollution occurring within their country, under comparable conditions and in comparable zones, taking into account, when appropriate, the special nature and environmental needs of the zone affected;

b) In particular, without prejudice to quality objectives or standards applying to transfrontier pollution mutually agreed upon by the countries concerned, the levels of transfrontier pollution entering into the zones, liable to be affected by such pollution should not exceed those considered acceptable under comparable conditions and in comparable zones inside the country in which it originates, taking into account, when appropriate, the special state of the environment in the affected country;

c) Any country whenever it applies the Polluter-Pays Principle should apply it to all polluters within this country without making any difference according to whether pollution affects this country or another country;

d) Persons affected by transfrontier pollution should be granted no less favourable treatment than persons affected by a similar pollution in the country from which such transfrontier pollution originates.

Title D. Principle of Equal Right of Hearing

5. Countries should make every effort to introduce, where not already in existence, a system affording equal right of hearing, according to which:

a) Whenever a project, a new activity or a course of conduct may create a significant risk of transfrontier pollution and is investigated by public authorities, those who may be affected by such pollution should have the same rights of standing in judicial or administrative proceedings in the country where it originates as those of that country;

b) Whenever transfrontier pollution gives rise to damage in a country, those who are affected by such pollution should have the same rights of standing in judicial or administrative proceedings in the country where such pollution originates as those of that country, and they should be extended procedural rights equivalent to the rights extended to those of that country.

Title E. Principle of Information and Consultation

6. Prior to the initiation in a country of works or undertakings which might create a significant risk of transfrontier pollution, this country should provide early information to other countries which are or may be affected. It should provide these countries with relevant information and data, the transmission

of which is not prohibited by legislative provisions or prescriptions or applicable international conventions, and should invite their comments.

7. Countries should enter into consultation on an existing or foreseeable transfrontier pollution problem at the request of a country which is or may be directly affected and should diligently pursue such consultations on this particular problem over a reasonable period of time.

8. Countries should refrain from carrying out projects or activities which might create a significant risk of transfrontier pollution without first informing the countries which are or may be affected and, except in cases of extreme urgency, providing a reasonable amount of time in the light of circumstances for diligent consultation. Such consultations held in the best spirit of co-operation and good neighbourliness should not enable a country to unreasonably delay or to impede the activities or projects on which consultations are taking place.

Title F. Warning Systems and Incidents

9. Countries should promptly warn other potentially affected countries of any situation which may cause any sudden increase in the level of pollution in areas outside the country of origin of pollution, and take all appropriate steps to reduce the effects of any such sudden increase.

10. Countries should assist each other, wherever necessary, in order to prevent incidents which may result in transfrontier pollution, and to minimise, and if possible eliminate, the effects of such incidents, and should develop contingency plans to this end.

Title G. Exchange of Scientific Information, Monitoring Measures and Research

11. Countries concerned should exchange all relevant scientific information and data on transfrontier pollution, when not prohibited by legislative provisions or prescriptions or by applicable international conventions. They should develop and adopt pollution measurement methods providing results which are compatible.

12. They should, when appropriate, co-operate in scientific and technical research programmes *inter alia* for identifying the origin and pathways of transfrontier pollution, any damage caused and the best methods of pollution prevention and control, and should share all information and data thus obtained.

They should, where necessary, consider setting up jointly, in zones affected by transfrontier pollution, a permanent monitoring system or network for assessing the levels of pollution and the effectiveness of measures taken by them to reduce pollution.

Title H. Institutions

13. Countries concerned by a particular problem of transfrontier pollution should consider the advantages of co-operation, by setting up international commissions or other bodies, or by strengthening existing institutions, in order to deal more effectively with particular aspects of such problems.

Such institutions could be authorised to collect any data needed for a proper evaluation of the problem and its causes, and make to the countries concerned practical proposals for concerted efforts to combat transfrontier pollution. With the consent of the States concerned, they could also carry out any necessary additional investigations into the origin and degree of pollution, review the effectiveness of any pollution prevention and control measures which have been taken, and publish reports of their findings.

Title I. Disputes

14. Should negotiations and other means of diplomatically settling disputes concerning transfrontier pollution fail, countries should have the opportunity to submit such a dispute to a procedure of legal settlement which is prompt, effective and binding.

Title J. International Agreements

15. Countries should endeavour to conclude, where necessary, bilateral or multilateral agreements for the abatement of transfrontier pollution in accordance with the above principles, to bring promptly into force any agreements which may already have been signed.

16. When negotiating new bilateral or multilateral agreements countries should, while taking into account the principles set out above, strive for the application of efficient pollution prevention and control measures in accordance with the Polluter Pays Principle.

Such agreements could, inter alia, include provisions for practical procedures promoting the prompt and equitable compensation of persons affected by transfrontier pollution, and could also contain procedures facilitating the provision of information and consultation.

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The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

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- **Decisions** are adopted by Council and are legally binding on all Members except those which abstain at the time of adoption. They set out specific rights and obligations and may contain monitoring mechanisms.

- **Recommendations** are adopted by Council and are not legally binding. They represent a political commitment to the principles they contain and entail an expectation that Adherents will do their best to implement them.

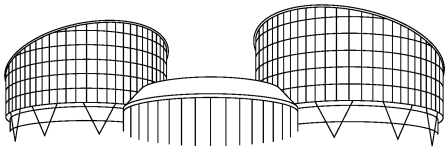
- **Substantive Outcome Documents** are adopted by the individual listed Adherents rather than by an OECD body, as the outcome of a ministerial, high-level or other meeting within the framework of the Organisation. They usually set general principles or long-term goals and have a solemn character.

- **International Agreements** are negotiated and concluded within the framework of the Organisation. They are legally binding on the Parties.

- **Arrangements, Understandings and Others**: several other types of substantive legal instruments have been developed within the OECD framework over time, such as the Arrangement on Officially Supported Export Credits, the International Understanding on Maritime Transport Principles and the Development Assistance Committee (DAC) Recommendations.

Annex 508

"Guide on Article 13 of the European Convention on Human Rights", *European Court of Human Rights Registry,* 31 August 2022, pages 14-20



EUROPEAN COURT OF HUMAN RIGHTS
COUR EUROPÉENNE DES DROITS DE L'HOMME

Guide on Article 13 of the European Convention on Human Rights

Right to an effective remedy

Updated on 31 December 2020



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This Guide was originally drafted in French. It is updated regularly and, most recently, on 31 December 2020.

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3. An effective remedy

31. **To be effective, the remedy must be capable of directly remedying the impugned situation** (*Pine Valley Developments Ltd and Others v. Ireland*, Commission decision, 1989; see also Scope of Article 13 of the Convention in this Guide).

32. **Contracting States are afforded some discretion** (or a margin of appreciation) as to the manner in which they provide the requisite remedy and conform to their Convention obligations under Article 13 (*Kaya v. Turkey*, 1998, § 106). Neither Article 13 nor the Convention in general lays down for the Contracting States any given manner for ensuring within their internal law the effective implementation of any of the provisions of the Convention (*Silver and Others v. the United Kingdom*, 1983, § 113; *Council of Civil Service Unions and Others v. the United Kingdom*, Commission decision, 1987). But the nature of the right at stake has implications for the type of remedy the State is required to provide under Article 13 (*Budayeva and Others v. Russia*, 2008, § 191). See also Scope of Article 13 of the Convention et Article 13 of the Convention and the other substantive provisions of the Convention and its Protocols in this Guide.

33. **The domestic authorities ruling on the case must examine the merits of the Convention complaint** (*Smith and Grady v. the United Kingdom*, 1999, § 138; *Peck v. the United Kingdom*, 2003, §§ 105-106; *Hasan and Chaush v. Bulgaria* [GC], 2000, § 100; *Hatton and Others v. the United Kingdom* [GC], 2003, § 141; *Glas Nadezhda EOOD and Elenkov v. Bulgaria*, 2007, § 69; *Boychev and Others v. Bulgaria*, 2011, § 56). Thus the **effectiveness of the remedy is assessed in relation to each complaint**.

The remedy must encompass the merits of the complaint as submitted by the applicant. If the authority or court concerned reformulates the complaint or fails to take into consideration an essential element of the alleged violation of the Convention, the remedy will be insufficient (*Glas Nadezhda EOOD and Elenkov v. Bulgaria*, 2007, § 69).

In the case of *Hasan and Chaush v. Bulgaria* [GC], 2000 (§ 100), the Supreme Court had refused to examine the merits of a complaint under Article 9 of the Convention, alleging State interference with the internal organisation of a religious community, finding that the Council of Ministers enjoyed an unlimited discretionary power in deciding whether or not to register the constitution and leadership of a religious denomination. It had merely ruled on the formal question whether the Decree laying down changes to the leadership and constitution of the Muslim community had been issued by the competent body. The appeal to the Supreme Court against the Decree was not, therefore, found to be an effective remedy.

In the case of *Metropolitan Church of Bessarabia and Others v. Moldova*, 2001 (§ 138), the Supreme Court of Justice had not replied to the applicants' main complaints, namely their wish to join together and manifest their religion collectively within a Church distinct from the Metropolitan Church of Moldova and to have the right of access to a court to defend their rights and protect their assets, given that only denominations recognised by the State enjoyed legal protection. Consequently, not being recognised by the State, the Metropolitan Church of Bessarabia had no rights it could assert in the Supreme Court of Justice.

See, in the same vein, *Hatton and Others v. the United Kingdom* [GC], 2003, § 141, and *Glas Nadezhda EOOD and Elenkov v. Bulgaria*, 2007, §§ 68-70.

34. **The effectiveness of the remedy is assessed *in concreto*** (*Colozza and Rubinat v. Italy*, Commission decision, 1982, pp. 146-147). To challenge a judgment handed down against him the applicant had sought to lodge an appeal – prima facie out of time – which would have allowed him to complain that the proceedings *in absentia* were not compatible with Article 6 of the Convention. The appeal was declared inadmissible by the Court of Appeal. However, on an appeal on points of law the Court of Cassation nevertheless examined his complaint and concluded that he had rightly been convicted *in absentia*. The applicant had thus had an effective remedy.

35. **The requirements of Article 6 may be relevant** for the assessment of the effectiveness of a remedy for the purposes of Article 13 of the Convention. As a general rule, the fundamental criterion of fairness, which encompasses the equality of arms, is a constitutive element of an effective remedy. A remedy cannot be considered effective unless the minimum conditions enabling an applicant to challenge a decision that restricts his or her rights under the Convention are provided (*Csüllög v. Hungary*, 2011, § 46).

36. The term "effective" means that **the remedy must be sufficient and accessible, fulfilling the obligation of promptness** (*Paulino Tomás v. Portugal* (dec.), 2003; *Çelik and İmret v. Turkey*, 2004, § 59). The remedy **must enable the submission of a complaint about the alleged violation of the Convention**.

37. **Excessively restrictive requirements** may render the remedy ineffective. In the case of *Camenzind v. Switzerland*, 1997 (§ 54), concerning the effectiveness of a remedy by which to complain of a house search under Article 8 of the Convention, only persons who were still affected, at least in part, by the impugned decision had *locus standi* to lodge a complaint before the Indictment Division of the Federal Court, which had accordingly declared inadmissible that part of the applicant's complaint concerning the search because the measure had ceased and he was no longer affected by it. Thus, even though the court had considered the complaint in so far as it concerned the interception and recording of a telephone conversation, the remedy could not be termed "effective" within the meaning of Article 13.

38. Remedies **must be accessible for the person concerned**.

In the case of *Petkov and Others v. Bulgaria*, 2009 (§ 82), candidates standing in parliamentary elections could challenge the result of the elections before the Constitutional Court, but only through the limited category of persons or bodies who were entitled to refer a matter to it.

However, the Court has also found that a remedy was not ineffective merely because it was not directly accessible to the person concerned, given that the latter had the benefit of a statutory collective system of dispute settlement before an arbitral tribunal through the shareholders' representative, the Court having found this system not to be in breach of the requirements of Article 6 § 1 of the Convention, which were stricter than those of Article 13 (*Lithgow and Others v. the United Kingdom*, 1986, § 207).

In cases involving minors, a legal representative must be capable of bringing proceedings on their behalf. In *Margareta and Roger Andersson v. Sweden*, 1992 (§ 101), a mother had not been prevented from challenging, on behalf of her twelve-year-old child, the restrictions on contacts between her and her son.

39. A domestic remedy must present **minimum guarantees of promptness** (*Kadiķis v. Latvia (no. 2)*, 2006, § 62). A remedy which will not bear fruit in sufficient time is inadequate and ineffective (*Pine Valley Developments Ltd and Others v. Ireland*, 1991, § 47; *Payet v. France*, 2011, §§ 131-134).

In the case of *Kadiķis v. Latvia (no. 2)*, 2006 (§§ 62-63), the Court found a violation of Article 13 of the Convention in the light of Article 3 given that, in particular, the applicant had been imprisoned for fifteen days and the competent authority by law had a period of fifteen or thirty days to respond to an application or complaint, with the possibility for those time-limits to be extended in certain cases.

See, in the same vein, *Wasserman v. Russia (no. 2)*, 2008, § 55-58 (over two and a half years to rule on the length of the enforcement proceedings), and *Vidas v. Croatia*, 2008, § 37 (three years and fifteen days to rule on the length of the civil proceedings).

However, in the case of *Kaić and Others v. Croatia*, 2008 (§ 41), the Court did not rule out the possibility that there might be cases where the delayed implementation, or even non-implementation, of the Constitutional Court's decisions might be justified, rather than entailing a

violation of Article 13 in the light of Article 6 § 1. However, in that case the Government had not attempted to justify the six-month delay, which was of particular importance given the fact that the predicate violation concerned the length of proceedings.

40. The existence of a **mere power of suspension** may suffice for the purposes of Article 13, taking account of the nature of the damage that might be caused and the specificities of the case at hand (*Özgür Radyo-Ses Radyo Televizyon Yayın Yapım Ve Tanıtım A.Ş. v. Turkey (no. 1)*, 2006, § 94; *contrast Jabari v. Turkey*, 2000, § 50). In the case of *Özgür Radyo-Ses Radyo Televizyon Yayın Yapım Ve Tanıtım A.Ş. v. Turkey (no. 1)*, 2006 (§ 94), the applicant company, which broadcast radio programmes, had been banned by the RTÜK, an independent administrative authority whose role was to govern the activities of radio and TV stations, after it had found a breach of the law. The Court took the view that the existence of a mere possibility of suspending the implementation of the measure could suffice for compliance with Article 13, even though the domestic courts had not granted the applicant company's request for a stay of execution in that case.

The same conclusion has been reached in cases concerning the expulsion and extradition of aliens who argue that they will be exposed, in their destination country, to a serious and proven risk of torture or other ill-treatment. In the case of *Allanazarova v. Russia*, 2017 (§§ 100-115), the Court found a violation of Article 13 of the Convention in the light of Article 3, as an appeal against the extradition under Russian law did not have an automatic suspensive effect or entail stringent scrutiny of the risk of ill-treatment in the State, Turkmenistan, which had requested the extradition of a woman.

41. **Post-hoc remedies may suffice to be effective**. In the case of *M.S. v. Sweden*, 1997 (§§ 55-56), it had been open to the applicant, whose complaint under Article 8 of the Convention concerned the disclosure, without her consent, of confidential personal and medical data by one public authority to another, to bring criminal and civil proceedings before the ordinary courts against the relevant staff of a clinic and to claim damages for breach of professional secrecy. Having regard to the limited nature of the disclosure and to the different safeguards, in particular the Social Security Office's obligation to secure and maintain the confidentiality of the information, the various *post-hoc* remedies satisfied the requirements of Article 13.

By contrast, the Court has found a violation of Article 13 of the Convention taken together with Article 11 where the judicial remedy that was available to the organisers in respect of decisions refusing to authorise their public events, only after the time when they were due to take place (and thus a *post-hoc* remedy), was not such as to provide satisfactory redress for the alleged violations of the Convention (*Bączkowski and Others v. Poland*, 2007, §§ 81-84; *Alekseyev v. Russia*, 2010, §§ 97-100; *Lashmankin and Others v. Russia*, 2017, §§ 342-361).

42. The Court **must take realistic account not only of the existence of formal remedies in the legal system of the Contracting Party concerned but also of the general legal and political context in which they operate as well as the personal circumstances of the applicant** (*Akdivar and Others v. Turkey*, 1996, § 69), these principles having been developed under Article 35 § 1 of the Convention. In the case of *A.B. v. the Netherlands*, 2002 (§ 98), the Court took account, first, of the lack of adequate implementation by the authorities of judicial orders to repair the unacceptable shortcomings in prisons and, secondly, the failure to implement urgent recommendations of the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment (CPT). In the case of *Orhan v. Turkey*, 2002 (§ 392), the Court had regard to the situation which existed in south-east Turkey at the time of the events complained of by the applicant, which was characterised by violent confrontations between the security forces and members of the PKK. In the case of *Aydın v. Turkey*, 1997 (§ 107), the Court found that the State should have taken particular precautions in the examination of a woman who alleged that she was raped in custody by a State official. The victim should have been examined, with all appropriate sensitivity, by medical

professionals with particular competence in this area and whose independence was not circumscribed by instructions given by the prosecuting authority as to the scope of the examination.

However, a respondent State is not entitled to raise the political context as a defence to an insufficient remedy (*Cyprus v. Turkey* [GC], 2001, § 193). The respondent Government had pleaded before the Commission that, pending the elaboration of an agreed political solution to the overall Cyprus problem, there could be no question of a right of displaced persons either to return to the homes and properties which they had left in northern Cyprus or to lay claim to any of their immovable property vested in the "TRNC" authorities.

43. **The remedy required by Article 13 must be "effective" in practice as well as in law** (*Menteş and Others v. Turkey*, 1997, § 89; *İlhan v. Turkey* [GC], 2000, § 97).

In the cases of *Vereinigung demokratischer Soldaten Österreichs and Gubi v. Austria*, 1994 (§ 53), *Doran v. Ireland*, 2003 (§§ 68-69), and *Djavit An v. Turkey*, 2003 (§ 73),the Government had not put forward any example showing the application of possible remedies in a similar case.

In the case of *Iovchev v. Bulgaria*, 2006 (§§ 145-148), the courts dismissed the applicant's action and refused compensation on the sole ground that he had failed to adduce sufficient proof that he had suffered non-pecuniary damage arising out of the conditions of his detention. There was nothing to indicate that an action under the State Responsibility for Damage Act could not in principle provide a remedy in this connection.

44. In particular, **the exercise of the remedy must not be unjustifiably hindered by acts or omissions of the respondent State** (*Aksoy v. Turkey*, 1996, § 95 *in fine*; *Aydın v. Turkey*, 1997, § 103; *Paul and Audrey Edwards v. the United Kingdom*, 2002, § 96). Thus, no question of hindering access to a tribunal arises where a litigant, represented by a lawyer, freely brings proceedings in a court, makes his submissions to it and lodges such appeals against its decisions as he considers appropriate (*Matos e Silva, Lda., and Others v. Portugal*, 1996, § 64).

The obligation of States under Article 13 encompasses a duty to ensure that the competent authorities enforce remedies when granted (compare Article 2 § 3 (c) of the International Covenant on Civil and Political Rights[4]). It would be inconceivable if Article 13 secured the right to a remedy, and provided for it to be effective, but did not guarantee the implementation of remedies used successfully. To hold the contrary would lead to situations incompatible with the principle of the rule of law which the Contracting States undertook to respect when they ratified the Convention (*Kenedi v. Hungary*, 2006, § 47; *Kaić and Others v. Croatia*, 2008, § 40).

45. In order for the exhaustion rule to come into operation, the effective remedy must exist at the date when the application is lodged with the Court (*Stoica v. Romania*, 2008, § 104). However this rule is subject to exceptions which might be justified by the specific circumstances of each case (*Baumann v. France*, 2001, § 47). The Court has accepted that this was the case when at the national level a new law, specifically designed to provide direct redress for violations of fundamental procedural rights, was introduced with retrospective effect, thus putting an end to a systemic problem that existed in the national legal system before its adoption (*Charzyński v. Poland* (dec.), 2005, §§ 40-41; *İçyer v. Turkey* (dec.), 2006, §§ 83-84; *Ismayilov v. Azerbaijan*, 2008, § 38).

46. The effectiveness must be established **in relation to the relevant period**, as a subsequent development of the case-law will not be sufficient (*Khider v. France*, 2009, §§ 142-145).

In the case of *Ramirez Sanchez v. France* [GC], 2006 (§§ 165-166), a new remedy stemming from a change in the case-law did not have retrospective effect and could not have any bearing on the applicant's position; it could not therefore be regarded as effective. The Court accordingly found a

4. This provision of the Covenant obliges State parties to "ensure that the competent authorities shall enforce such remedies when granted".

violation of Article 13, in the light of Article 3, on account of the lack of a remedy in domestic law that would have allowed the applicant to challenge the decisions to prolong his solitary confinement.

The Court has found that it does **not need to examine remedies which did not exist at the relevant time or were not applicable to the facts of the case**. As the Court reiterated in *Peck v. the United Kingdom*, 2003 (§ 102), its task is not to review the relevant law or practice in the abstract but rather to confine itself, without overlooking the general context, to examining the issues raised by the case before it (see also *Amann v. Switzerland* [GC], 2000, § 88) and, in particular, to considering only those remedies which could have some relevance for the applicant (see also *N. v. Sweden*, Commission decision, 1986; *Stewart-Brady v. the United Kingdom*, Commission decision, 1997).

47. **A single final judicial decision**, however comprehensive in its reasoning – given, moreover, at first instance – is not sufficient to satisfy the Court that there was an effective remedy available in theory and in practice (*Sürmeli v. Germany* [GC], 2006, § 113; *Abramiuc v. Romania*, 2009, § 128). The absence of further case-law indicates the present uncertainty of a remedy in practical terms (*Horvat v. Croatia*, 2001, § 44). Thus in the case of *Martins Castro and Alves Correia de Castro v. Portugal*, 2008 (§§ 56-57), the Court found a violation of Article 13 in the light of Article 6 § 1, given that an action to establish non-contractual State liability could not be regarded as an "effective" remedy while the case-law emanating from the Supreme Administrative Court had not been consolidated in the Portuguese legal system, through a harmonisation of the case-law divergences which were to be found at the time of the judgment.

48. The Court may nevertheless examine the effectiveness of a remedy **before the practice of the domestic courts can be determined** (*Slaviček v. Croatia* (dec.), 2002; *Nogolica v. Croatia* (dec.), 2002). A lack of established judicial practice may not be decisive. In the case of *Charzyński v. Poland* (dec.), 2005 (§ 41), at the time when a law of 2004 entered into force, the long-term practice of the domestic courts could not yet be established. However, the wording of the 2004 Act clearly indicated that it was specifically designed to address the issue of an excessive length of proceedings before the domestic courts. The applicant was thus required by Article 35 § 1 of the Convention to complain to a domestic court, under that Act, about a breach of the right to a trial within a reasonable time, to ask for the proceedings to be expedited and to claim just satisfaction.

49. **The "effectiveness" of a remedy for the purposes of Article 13 does not depend on the certainty of a favourable outcome for the applicant** (*Swedish Engine Drivers' Union v. Sweden*, 1976, § 50; *Kudła v. Poland* [GC], 2000, § 157; *Costello-Roberts v. the United Kingdom*, 1993, § 40; *Hilal v. the United Kingdom*, 2001, § 78).

The word "*remedy*", in the context of Article 13, does not mean a remedy bound to succeed, but simply an accessible remedy before an authority competent to examine the merits of a complaint (*C. v. the United Kingdom*, Commission decision, 1983). Article 13 guarantees the availability of a remedy but not a successful outcome (*R. v. the United Kingdom*, Commission decision, 1984).

Feeble prospects of success in the light of the particular circumstances of the case do not detract from the "effectiveness" of a remedy for the purpose of Article 13 (*Murray v. the United Kingdom*, 1994, § 100).

The existence of mere doubts as to the prospects of success of a particular remedy which is not obviously futile is not a valid reason for failing to make use of it (*Akdivar and Others v. Turkey*, 1996, § 71; *Krasuski v. Poland*, 2005, §§ 69-73; *Scoppola v. Italy (no. 2)* [GC], 2009, § 70; *Vučković and Others v. Serbia* (preliminary objection) [GC], 2014, § 74).

The mere fact that an applicant's claims were all dismissed is not in itself sufficient to determine whether or not the remedy was "effective" (*Swedish Engine Drivers' Union v. Sweden*, 1976, § 50; *Boyle and Rice v. the United Kingdom*, 1988, § 67; *Vereinigung demokratischer Soldaten Österreichs and Gubi v. Austria*, 1994, § 55; *Amann v. Switzerland* [GC], 2000, § 89). Thus in *Amann*

v. Switzerland [GC], 2000 (§§ 89-90), the Court found no violation of Article 13 in the light of Article 8, taking the view that the remedy was effective even though the applicant's claims had been dismissed. The Federal Court had jurisdiction to rule on those complaints and duly examined them.

50. The context in which an alleged violation – or category of violations – occurs, **as the protection afforded by Article 13 is not absolute**, may entail **inherent limitations on the conceivable remedy** (*Kudła v. Poland* [GC], 2000, § 151). The Convention is to be read as a whole and therefore any interpretation of Article 13 must be in harmony with the logic of the text. In such circumstances Article 13 is not regarded as inapplicable, but its "effective remedy" requirement means a remedy that is as effective as can be having regard to the restricted scope for recourse inherent in the context (*Klass and Others v. Germany*, 1978, §§ 68-69). See in the same vein, *Leander v. Sweden*, 1987, §§ 78-79; see also the part of this Guide on Article 13 of the Convention in conjunction with or in the light of Article 8 (Respect for private life – Covert surveillance and personal data retention).

51. **The scope of judicial scrutiny by a domestic court must be sufficient** to guarantee protection under Article 13. Insufficient powers of judicial review exercised by the courts may entail a violation of Article 13 (*Smith and Grady v. the United Kingdom*, 1999, §§ 136-139; *Hatton and Others v. the United Kingdom* [GC], 2003, §§ 141-142).

In the cases of *Soering v. the United Kingdom*, 1989 (§§ 121-124), and *Vilvarajah and Others v. the United Kingdom*, 1991 (§§ 123-127), the Court found judicial review to be an effective remedy for the applicants' complaints, concluding that there had been no violation of Article 13 of the Convention in the light of Article 3. The UK courts had been able to review the "reasonableness" of an extradition or expulsion decision in the light of the kind of factors relied on by the applicants before the Convention institutions in the context of Article 3.

52. In addition, **the aggregate of remedies provided for under domestic law may meet the requirements of Article 13, even where no single remedy may itself entirely satisfy them** (*Silver and Others v. the United Kingdom*, 1983, § 113 (c); *Leander v. Sweden*, 1987, § 77 (c); *Chahal v. the United Kingdom*, 1996, § 145; *Kudła v. Poland* [GC], 2000, § 157; *De Souza Ribeiro v. France* [GC], 2012, § 79).

In the case of *Brincat and Others v. Malta*, 2014 (§ 64), the Court pointed out that it had sometimes found, under certain conditions, that an aggregate of remedies sufficed for the purposes of Article 13 in conjunction with Articles 2 and 3 (see also *Giuliani and Gaggio v. Italy* [GC], 2011, § 338). This concept generally refers to a number of remedies which can be taken up one after the other or in parallel and which cater for different aspects of redress, such as a civil remedy providing for compensation and a criminal action for the purposes of satisfying the procedural aspect of Articles 2 and 3 (ibid., § 337).

In *Sürmeli v. Germany* [GC], 2006 (§§ 102-116), concerning the length of court proceedings, the Court did not rule on the effectiveness of four remedies in the aggregate, given that the Government had neither alleged nor shown that a combination of two or more of them would satisfy the requirements of Article 13.

53. Remedies may not be effective where **there is some doubt as to which courts – civil, criminal, administrative or others – have jurisdiction** to examine a complaint, and there is no effective or speedy mechanism for the purpose of resolving such uncertainty. In the case of *Mosendz v. Ukraine*, 2013 (§§ 122-125), the applicant had brought a civil claim against the Ministry of the Interior seeking compensation for damage in respect of the ill-treatment and death of her son during his compulsory military service. Pursuant to the instructions of a local court which refused to institute civil proceedings, she resubmitted her claim under the rules of administrative procedure. While the first-instance court allowed her claim, the appellate court quashed that judgment on procedural grounds, holding that the case fell under the jurisdiction of the civil rather than the administrative courts, this decision being upheld by the highest court more than five years after the applicant had lodged her

claim. As a result, the applicant's claim for damages remained without examination and she was denied an effective domestic remedy, in breach of Article 13, in respect of her complaints under Articles 2 and 3 of the Convention.

54. Where an applicant relies on the argument that an existing domestic remedy is ineffective, **it is incumbent on the Government to adduce evidence of the implementation and practical effectiveness of the remedy** that they have suggested, in the particular circumstances of the case, providing relevant examples of case-law from national courts or pointing to the decisions of administrative authorities in a similar case (*Efstratiou v. Greece*, 1996, § 49; *Kudła v. Poland* [GC], 2000, § 159; *Segerstedt-Wiberg and Others v. Sweden*, 2006, § 120; *Ananyev and Others v. Russia*, 2012, § 110; *Stanev v. Bulgaria* [GC], 2012, § 219). The Court will consider whether a given remedy has acquired a sufficient degree of certainty in its implementation (*Čonka v. Belgium*, 2002, § 83; *Krasuski v. Poland*, 2005, § 68). The Government must demonstrate the effectiveness of all the remedies on which they rely, failing which the Court may find a violation of Article 13 (*Wille v. Liechtenstein* [GC], 1999, §§ 74-78; *Yarashonen v. Turkey*, 2014, §§ 64-66) or decline to rule on the matter.

B. Scope of Article 13 of the Convention

55. The scope or extent of the field of action of the obligation under Article 13 **will vary depending on the nature of the complaint** under the Convention (*Chahal v. the United Kingdom*, 1996, §§ 150-151; *Aksoy v. Turkey*, 1996, § 95; *Aydın v. Turkey*, 1997, § 103; *Z and Others v. the United Kingdom* [GC], 2001, § 108; *Paul and Audrey Edwards v. the United Kingdom*, 2002, § 96) **or the nature of the right relied upon** under the Convention (*Hasan and Chaush v. Bulgaria* [GC], 2000, § 98).

56. **To be effective, a remedy must be capable of directly providing redress for the impugned situation** (*Pine Valley Developments Ltd and Others v. Ireland*, Commission decision, 1989). The means of submitting complaints will be regarded as "effective" if they could have prevented the alleged violation occurring or continuing or could have afforded the applicant appropriate redress for any violation that had already occurred (*Kudła v. Poland* [GC], 2000, § 158; *Ramirez Sanchez v. France* [GC], 2006, § 160). Thus a successful outcome of an effective remedy could be, for example, depending on the case, the annulment, withdrawal or amendment of an act breaching the Convention, an investigation, reparation, or sanctions imposed on the person responsible for the act. See also the part of this Guide on Article 13 of the Convention and other substantive provisions of the Convention and its Protocols.

Where an arguable breach of one or more of the rights under the Convention is in issue, there should be available to the victim a mechanism for establishing any liability of State officials or bodies for that breach. Furthermore, in appropriate cases, compensation for the pecuniary and non-pecuniary damage flowing from the breach should in principle be available as part of the range of redress (*T.P. and K.M. v. the United Kingdom* [GC], 2001, § 107).

57. The Court adopts a **stricter approach** to the notion of "effective remedy" in the following situations:

- Where a right with as fundamental an importance as **the right to life** (Article 2 of the Convention) or the **prohibition of torture and inhuman or degrading treatment** (Article 3 of the Convention) is at stake, the notion of an effective remedy for the purposes of Article 13 entails, without prejudice to any other remedy available under the domestic system, in addition to the payment of compensation where appropriate, a thorough and effective investigation capable of leading to the identification and punishment of those responsible and including effective access for the complainant to the investigatory procedure (*Kaya v. Turkey*, 1998, § 107; *Yaşa v. Turkey*, 1998, § 114).

Annex 509

"Factsheet – Climate change", *European Court of Human Rights,* January 2024

January 2024
This factsheet is not exhaustive and does not bind the Court

Climate change

Even though the European Convention on Human Rights does not enshrine any right to a healthy environment as such, the European Court of Human Rights has been called upon to develop its case-law in environmental matters on account of the fact that the exercise of certain Convention rights may be undermined by the existence of harm to the environment and exposure to environmental risks.

The Court has not yet ruled on the issue of State climate-change action. There are currently three cases pending before the Grand Chamber of the Court on this issue.

Cases pending before the Grand Chamber of the Court

On 11 January 2023 the Grand Chamber held a procedural meeting in the three climate cases pending before it – *Verein Klimaseniorinnen Schweiz and Others v. Switzerland*, *Carême v. France* and *Duarte Agostinho and Others v. Portugal and 32 Others*. At that meeting, it was decided that, after the completion of the written stage of the proceedings, the oral stage in the cases would be staggered.

A hearing in the *Verein Klimaseniorinnen Schweiz and Others* and *Carême* cases was held on 29 March 2023, and a hearing in the *Duarte Agostinho and Others* case was held before the same composition of the Grand Chamber on 27 September 2023.

Verein KlimaSeniorinnen Schweiz and Others v. Switzerland (application no. 53600/20)

Relinquishment in favour of the Grand Chamber in April 2022

This case, which has been brought by a Swiss association and its members, a group of older people concerned with the consequences of global warming on their living conditions and health, relates to a complaint of various failings of Swiss authorities in the area of climate protection. The applicants submit in particular that the respondent State has failed to fulfil its positive obligations to protect life effectively (Article 2 of the Convention) and to ensure respect for their private and family life, including their home (Article 8 of the Convention). They further complain that they have not had access to a court within the meaning of Article 6 (right to a fair trial) of the Convention, and of a violation of Article 13 (right to an effective remedy) of the Convention, arguing that no effective domestic remedy is available to them for the purpose of submitting their complaints under Articles 2 and 8.

The Chamber of the Court to which the case had been allocated relinquished jurisdiction in favour of the Grand Chamber on 26 April 2022.

A large number of third-party interveners, including member States, have taken part in the written stage of the proceedings.

On 29 March 2023 the Court held a Grand Chamber hearing in the case.

Carême v. France (no. 7189/21)

Relinquishment in favour of the Grand Chamber in May 2022

This case concerns a complaint by a resident and former mayor of the municipality of Grande-Synthe, who submits that France has taken insufficient steps to prevent climate change and that this failure entails a violation of the right to life (Article 2 of the

Convention) and the right to respect for private and family life (Article 8 of the Convention).
The Chamber of the Court to which the case had been allocated relinquished jurisdiction in favour of the Grand Chamber on 31 May 2022.
On 29 March 2023 the Court held a Grand Chamber hearing in the case.

Duarte Agostinho and Others v. Portugal and 32 Other States[1] (no. 39371/20)

Relinquishment in favour of the Grand Chamber in June 2022

This case concerns the greenhouse gas emissions from 33 member States which, in the view of the applicants – Portuguese nationals aged between 10 and 23 –, contribute to the phenomenon of global warming, resulting, among other things, in heatwaves affecting the applicants' living conditions and health. The applicants complain in particular that the 33 States concerned are failing to comply with their positive obligations under Articles 2 (right to life) and 8 (right to respect for private and family life) of the Convention, read in the light of their undertakings under the 2015 Paris Agreement on climate change (COP 21). They also allege a violation of Article 14 (prohibition of discrimination) taken in conjunction with Article 2 and/or Article 8 of the Convention, arguing that global warming affects their generation particularly and that, given their age, the interference with their rights is greater than in the case of older generations.
The Chamber of the Court to which the case had been allocated relinquished jurisdiction in favour of the Grand Chamber on 28 June 2022.
A large number of third-party interveners have also taken part in the written stage of the proceedings.
On 27 September 2023 the Grand Chamber held a hearing in the case.

Cases other than those pending before the Grand Chamber

Between September 2022 and February 2023 the Court held a series of procedural meetings in respect of climate change applications other than those pending before its Grand Chamber.

The Court decided to adjourn its examination of six cases until such time as the Grand Chamber has ruled in the climate change cases before it.

It has also declared three other cases inadmissible.

Cases adjourned

Uricchiov v. Italy and 31 Other States[2] (application no. 14615/21) and De Conto v. Italy and 32 Other States[3] (n° 14620/21)

Applications lodged before the Court in March 2021

These cases were brought by two young adults who complain, relying on Articles 2 (right to life), 8 (right to respect for private and family life), 13 (right to an effective remedy) and 14 (prohibition of discrimination) of the Convention, that the greenhouse gas

[1]. Austria, Belgium, Bulgaria, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Spain, Estonia, Finland, France, United Kingdom, Greece, Croatia, Hungary, Ireland, Italy, Lithuania, Luxembourg, Latvia, Malta, the Netherlands, Norway, Poland, Romania, Russia (*N.B.*: on 16 September 2022 the Russian Federation ceased to be a Party to the European Convention on Human Rights), Slovakia, Slovenia, Sweden, Türkiye, and Ukraine.

[2]. Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Russia (*N.B.*: on 16 September 2022 the Russian Federation ceased to be a Party to the European Convention on Human Rights), Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye, Ukraine, and the United Kingdom.

[3]. Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Russia (*N.B.*: on 16 September 2022 the Russian Federation ceased to be a Party to the European Convention on Human Rights), Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye, Ukraine, and the United Kingdom.

emissions from 33 member States have caused global warming, resulting, among other things, in extreme weather events such as heatwaves and storms, affecting the applicants' living conditions and mental health.

Müllner v. Austria (no. 18859/21)

Application lodged before the Court in March 2021

This case was brought by a person suffering from a medical condition that makes him wheelchair-bound when subjected to temperatures of 30 degrees Celsius and above. The applicant complains, relying on Articles 2 (right to life), 6 (right to a fair trial), 8 (right to respect for private and family life) and 13 (right to an effective remedy) of the Convention, that Austria has not put in place an adequate legislative and administrative framework to achieve the Paris Agreement temperature target of limiting the global average temperature increase to 1.5 degrees Celsius above pre-industrial levels, and that it has consistently failed to meet its national targets in terms of effective greenhouse gas reduction.

Greenpeace Nordic and Others v. Norway (no. 34068/21)

Application communicated to the Government of Norway in December 2021

This case was brought by two non-governmental organisations (NGOs) and six affiliated individuals. The applicants complain, relying on Articles 2 (right to life), 8 (right to respect for private and family life), 13 (right to an effective remedy) and 14 (prohibition of discrimination) of the Convention, about the judicial review-proceedings in which the applicant NGOs did not succeed in obtaining a judgment declaring invalid a decision made by the Norwegian Government to grant petroleum exploration licences for the Norwegian continental shelf.

This case was notified to the parties ("communicated") by the Court on 16 December 2021.

The Norwegian Grandparents' Climate Campaign and Others v. Norway (no. 19026/21)

Applications lodged before the Court in March 2021

This case relates to the same domestic proceedings as the subject of *Greenpeace Nordic and Others* (see above). The applicants are non-governmental organisations.

Soubeste and four other applications v. Austria and 11 Other States[4] (nos. 31925/22, 31932/22, 31938/22, 31943/22 and 31947/22)

Applications lodged before the Court in June 2022

These cases were brought by five individuals from France, Cyprus, Belgium, Germany and Switzerland. The applicants complain, relying on Articles 2 (right to life), 3 (prohibition of inhuman or degrading treatment), 8 (right to respect for private and family life) and 14 (prohibition of discrimination) of the Convention, that the Energy Charter Treaty inhibits the respondent States from taking immediate measures against climate change, making it impossible for them to attain the Paris Agreement temperature goals.

Engels v. Germany (no. 46906/22)

Application lodged before the Court in September 2022

This application was brought by nine teenagers and young adults. The applicants complain, relying on Articles 2 (right to life) and 8 (right to respect for private and family life) of the Convention, that the new objectives of the German Climate Protection Act in its amended version which entered into force on 31 August 2021, are insufficient to reduce greenhouse gas emissions to the level necessary for meeting the Paris Agreement temperature goals.

[4]. Belgium, Cyprus, Denmark, France, Germany, Greece, Luxembourg, the Netherlands, Sweden, Switzerland, and the United Kingdom.

Cases declared inadmissible

The Court declared the three applications below inadmissible on the grounds that the applicants were not sufficiently affected by the alleged breach of the Convention or its Protocols to claim to be victims of a violation within the meaning of Article 34 (right of individual petition) of the Convention. These decisions were taken, respectively, in a Single Judge and Committee judicial formations in a non-public written procedure.

Humane Being and Others v. the United Kingdom (no. 36959/22)

1 December 2022 (inadmissibility decision)

The case was brought by a non-profit organisation running the "Scrap Factory Farming" campaign. The applicants complained, relying on Articles 2 (right to life), 3 (prohibition of inhuman or degrading treatment) and 8 (right to respect for private and family life) of the Convention, that the United Kingdom had failed to regulate and take all reasonable steps to safeguard against the risks of factory farming.

Plan B. Earth and Others v. the United Kingdom (no. 35057/22)

1 December 2022 (inadmissibility decision)

The applicants are a non-governmental organisation and four individuals. They complained, relying on Articles 2 (right to life), 3 (prohibition of inhuman or degrading treatment), 8 (right to respect for private and family life) and 14 (prohibition of discrimination) of the Convention, that the United Kingdom had failed to take practical and effective measures to tackle the extreme threat from man-made climate change. They also complained, relying on Articles 6 (right to a fair trial) and 13 (right to an effective remedy) of the Convention, that they had been denied a full hearing of their case in the domestic courts.

Asociacion Instituto Metabody v. Spain (no. 32068/23)

5 October 2023 (inadmissibility decision)

The case was brought by a non-profit organisation running a campaign against animal exploitation food industries as "the main source of ecosystem destruction and climate change, mass extinctions and animal abuse, threats to human health, equality, food security and peace". Relying on Articles 2 (right to life), 8 (right to respect for private and family life) and Article 14 (prohibition of discrimination) of the Convention, the applicant submitted that Spain had failed to regulate and take all reasonable steps to safeguard against the risks of factory farming.

Further reading

See in particular:

- **"Environment"** factsheet
- **Guide to the Case-Law of the European Court of Human Rights – Environment**, European Court of Human Rights, updated in February 2023.
- Council of Europe **webpage** "Protecting the environment using human rights law".

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Annex 510

"Inter-State applications", *European Court of Human Rights*

Inter-State applications



Introduction

Most applications before the Court are individual applications lodged by private persons. A State may also lodge an application against another State Party to the Convention; this is called an inter-State application.

Questions and Answers on Inter-State applications

Type a keyword in the search box below to filter pending and completed applications

Search

Pending inter-State applications

Listed by date on which they were lodged

Azerbaijan v. Armenia (II) (no. 39912/22)
Webcast of hearing :
Date lodged: 18/08/22

Armenia v. Azerbaijan (IV) (no. 15389/22)
Press releases
Webcast of hearing :
Date lodged: 24/03/22

Armenia v. Azerbaijan (III) (no. 42445/21)
Webcast of hearing :
Date lodged: 24/08/21

Armenia v. Azerbaijan (II) (no. 33412/21)
Webcast of hearing :
Date lodged: 29/06/21

Ukraine v. Russia (IX) (no. 10691/21)
Press releases
Webcast of hearing :
Date lodged: 19/02/21

Azerbaijan v. Armenia (no. 47319/20)
Relinquishment of jurisdiction to the Grand Chamber
Press releases Statement of facts
Webcast of hearing :
Date lodged: 27/10/20

Armenia v. Türkiye (no. 43517/20)
Press releases
Webcast of hearing :
Date lodged: 04/10/20

Armenia v. Azerbaijan (no. 42521/20)
Relinquishment of jurisdiction to the Grand Chamber
Press releases Statement of facts
Webcast of hearing :
Date lodged: 27/09/20

Liechtenstein v. the Czech Republic (no. 35738/20)
Press releases
Webcast of hearing :
Date lodged: 19/08/20

Ukraine v. Russia (VIII) (no. 55855/18)
Press releases

Completed inter-State applications

Listed by date on which they were lodged

Russia v. Ukraine (no. 36958/21)
Press releases Decision 18/07/2023 (struck off the list)
Webcast of hearing :
Date lodged: 22/07/21

Latvia v. Denmark (no. 9717/20)
Decision 16/06/2020 (struck off the list)
Webcast of hearing :
Date lodged: 19/02/20

Slovenia v. Croatia (no. 54155/16)
Relinquishment of jurisdiction to the Grand Chamber
Press releases Decision
Webcast of hearing : 12/06/19
Date lodged: 15/09/16

Ukraine v. Russia (III) (no. 49537/14)
Decision 24/09/2015 (struck off the list)
Webcast of hearing :
Date lodged: 09/07/14

Georgia v. Russia (III) (no. 61186/09)
Decision 16/03/2010 (struck off the list)
Webcast of hearing :
Date lodged: 03/12/09

Georgia v. Russia (II) (no. 38263/08)
Relinquishment of Jurisdiction to the Grand Chamber
Delivery of the judgment 21/01/2021
Press releases Decision 13/12/2011 Grand Chamber Judgment
Webcast of hearing : 23/05/18
Date lodged: 12/08/08

Georgia v. Russia (II) (no. 38263/08)
Relinquishment in favour of the Grand Chamber
Press releases Admissibility decision
Webcast of hearing : 22/09/11
Date lodged: 12/08/08

Georgia v. Russia (II) (no. 38263/08) (Just satisfaction - Art. 41)
Relinquishment of jurisdiction to the Grand Chamber
Press releases Decision Grand Chamber Judgment Chamber hearing (22/09/2011)
Grand Chamber hearing (23/05/2018)
Webcast of hearing : 23/05/18
Date lodged: 12/08/08

Georgia v. Russia (I) (no. 13255/07)

Webcast of hearing :
Date lodged: 29/11/18

Georgia v. Russia (IV) (no. 39611/18)

Relinquishment of jurisdiction to the Grand Chamber
Press releases Decision
Webcast of hearing :
Date lodged: 22/08/18

Ukraine v. Russia (re Crimea) (nos. 20958/14 and 38334/18)

Relinquishment of jurisdiction to the Grand Chamber

The Court will be holding a hearing in this case on 8 November 2023 (postponed)

The Court will be holding a hearing in this case on 13 December 2023

Press releases Decision
Webcast of hearing : 13/12/23
Date lodged: 11/08/18

Ukraine and the Netherlands v. Russia (nos. 8019/16, 43800/14 and 28525/20)

Relinquishment of jurisdiction to the Grand Chamber Delivery of the decision 25/01/2023
Press releases Statement of facts Decision
Webcast of hearing : 26/01/22
Date lodged: 13/03/14

Ukraine v. Russia (re Crimea) (no. 20958/14)

Relinquishment of jurisdiction to the Grand Chamber

The Court will be holding a hearing in this case on 8 November 2023 (postponed)

The Court will be holding a hearing in this case on 13 December 2023

Delivery of the decision 14/01/2021
Press releases Decision
Webcast of hearing : 11/09/19
Date lodged: 13/03/14

Relinquishment of Jurisdiction to the Grand Chamber
Delivery of the judgment 03/07/2014
Press releases Decision Grand Chamber judgment (on the merits)
Webcast of hearing : 16/04/09
Date lodged: 26/03/07

Georgia v. Russia (I) (no. 13255/07) Just satisfaction

Relinquishment of jurisdiction to the Grand Chamber
Delivery of the judgment 03/07/2014
Delivery of the judgment on Just satisfaction 31/01/2019
Press releases Decision Grand Chamber judgment (on the merits)
Grand Chamber judgment (just satisfaction)
Webcast of hearing : 13/06/12
Date lodged: 26/03/07

Denmark v. Turkey (no. 34382/97)

Press releases Decision Judgement Resolution of the Committee of Ministers
Webcast of hearing :
Date lodged: 07/01/97

Cyprus v. Turkey (no. 25781/94) Article 41 - Just satisfaction

The case was referred to the Court by the Government of the Republic of Cyprus on 30 August 1999 and by the Commission on 11 September 1999. The panel of the Grand Chamber of the Court decided that the case should be examined by the Grand Chamber.
Delivery of the judgment on just satisfaction 12/05/2014
Press releases Grand Chamber Judgment on just satisfaction
Grand Chamber judgment on the merits
Webcast of hearing :
Date lodged: 22/11/94

Cyprus v. Turkey (III) (no. 8007/77)

Decision Commision reports: 12.07.1980 (Conf.) (Interim) 04.10.1983 (Art.31)
Webcast of hearing :
Date lodged: 06/09/77

Cyprus v. Turkey (I) and (II) (nos. 6780/74 and 6950/75)

Decision Commission Report: 10.07.1976: Vol. I ; Vol. II
Resolution of the Committee of Ministers
Webcast of hearing :
Date lodged: 10/09/74

Ireland v. United Kingdom (II) (no. 5451/72)

Decision (struck off the list)
Webcast of hearing :
Date lodged: 06/03/72

Ireland v. United Kingdom (I) (no. 5310/71)

Press release (Revision judgement) Decision Commission Report Judgement
Revision judgement Resolution of the Committee of Ministers
Webcast of hearing :
Date lodged: 16/12/71

Denmark, Norway, Sweden & the Netherlands v. Greece (II) (no. 4448/70)

Decisions: 26.05.1970 16.07.1970
Commission Reports: 05.10.1970 04.10.1976 (Art. 54 RP/RI)
Webcast of hearing :
Date lodged: 10/04/70

Denmark, Norway, Sweden & the Netherlands v. Greece (I) (nos. 3321/67 to 3323/67 and 3344/67)

Decisions: 24.01.1968 31.05.1968 Commission Report
Resolutions of the Committee of Ministers: 15.04.1970 26.11.1974
Webcast of hearing :
Date lodged: 27/09/67

Austria v. Italy (no. 788/60)

Statement of facts (in French only) Decision Commission Report (in French only)
Resolution of the Committee of Ministers
Webcast of hearing :
Date lodged: 11/07/60

Greece v. United Kingdom (II) (no. 299/57)

Decision (in French only) Commission Reports: 26.09.1959 (Conf.) 08.07.1959
Resolutions of the Committee of Ministers: 14.12.1959 05.04.2006
Webcast of hearing :
Date lodged: 17/07/57

Greece v. United Kingdom (I) (no. 176/56)

Decision Commission Reports: 26.09.1958 (Vol I) 26.09.1958 (Vol II)
Resolutions of the Committee of Ministers: 20.04.1959 17.09.1997
Webcast of hearing :
Date lodged: 07/05/56