



Draft International Covenant on Environment and Development

Fourth Edition: Updated Text

The Environmental Law Programme of the International Union for the Conservation of Nature and Natural Resources
in cooperation with
The International Council of Environmental Law
– toward sustainable development –

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FOREWORD to the fourth edition

Over the six years since the third edition was prepared, the Draft Covenant has continued to serve as an authoritative reference and checklist for legislators, civil servants and other stakeholders worldwide in their endeavours to ensure that principles and rules of international environmental law and development are thoroughly addressed when they are drafting new, or updating existing, policies and laws. The ever-greater consideration of the environment at the highest political levels is a welcome sign of the role that environmental law and policy has in maintaining international peace and security.

Despite its success, this draft international framework agreement consolidating and developing existing legal principles related to the environment and development requires occasional updating in accord with the newest developments in a field, especially following the decisions of the United Nations General Assembly and the work of its Specialized Agencies and Programmes.

Aware of this fact, the International Council of Environmental Law (ICEL) was obliged to prepare an update of the Draft Covenant following Resolution: 4.101 by the 4th World Conservation Congress of the International Union of the Conservation of Nature and Natural Resources (IUCN) in 2008.

Soon thereafter, ICEL called upon its members, as well as all members of the IUCN Commission on Environmental Law to make proposals for amendments to the third edition. Following more than a year of preparation, compilation and review, ICEL in cooperation with the IUCN Environmental Law Programme invited all those who had taken part in the process to a meeting from 14–15 January 2010 in Bonn (Germany) to decide on the necessary amendments.

This multifaceted group of 18 eminent individuals convened in a personal capacity and demonstrated their commitment to consistency through the participation of all three former Chairs of the Commission on Environmental Law. During two intense days of deliberations and legal drafting under the Chair of Donald W. Kaniaru, they undertook an article by article evaluation of the provisions and made proposals for necessary amendments and additions to the extensive commentary.

Special gratitude goes to Dinah Shelton for taking on the arduous task of updating the commentary and to Peter Sand for his dedication to the process from the beginning to the very end.

Lastly, we recognize the unflagging support of the Elizabeth Haub Foundations for Environmental Law and Policy for making the meeting and publication of this, as well as preceding editions possible.

Wolfgang E. Burhenne
Executive Governor, International Council of Environmental Law

FOREWORD to the third edition

The Draft Covenant is a blueprint for an international framework (or umbrella) agreement consolidating and developing existing legal principles related to environment and development. The intention is that it will remain a “living document” until – as is the hope and expectation of those who have been involved in the project – it is adopted as a basis for multilateral negotiations.

In line with this approach, a second edition of the Covenant was prepared only three years after the publication of the original version. It was presented to the Member States of the United Nations on the occasion of the closing of the UN Decade of International Law, on 17 November 1999.

Despite the fact that less than five years have elapsed since publication of the second edition, there have been important new developments in the field of international environmental law and development at the start of the new Millennium justifying yet another review of the Draft Covenant.

This is why the IUCN Commission on Environmental Law (CEL) and the International Council of Environmental Law (ICEL) convened a small meeting of experts from 10 to 11 March 2003 in Bonn, at the IUCN Environmental Law Centre. The main purpose of the meeting was to assess the impact on the Covenant of the results of the Johannesburg World Summit on Sustainable Development (WSSD), especially on the matter of implementation of international agreements. At the same time, it was considered desirable and convenient to revise the Covenant text as a whole to take account of other international law developments relevant to the Covenant which had occurred since the last revision. To facilitate the updating process, the meeting scrutinised a number of important new treaties and soft law documents, including the Johannesburg Declaration and Plan of Implementation.

As a result of this wide-ranging review, various changes were made to the text of the Covenant. Special care was taken to update it with respect to the ‘social and economic pillars’ and thereby avoid falling into the trap of concentrating solely on the ‘environmental pillar’. The nature and extent of the changes made to the text, naturally led to a revision of the Commentary after the meeting.

At the outset of the meeting, most participants were of the view that the overall shape and content of the Covenant should remain untouched and that the text itself would only require minor revisions. As the discussion went along, however, participants found more and more points of detail that were in need of adjustment, thus expanding the number of changes beyond what was originally anticipated. In short, the extent of the changes made to the Covenant have more than justified the convening of the review meeting and the decision to distribute this third edition of the Covenant.

From another angle, the fact that the Covenant text has undergone another round of substantial revision demonstrates not only that the body of environmental law continues to grow, but also that its underlying legal principles are becoming ever more strongly established. By making sure that these developments are reflected in the text, the meeting fulfilled another one of the Covenant’s important functions – namely, to serve as an authoritative reference and checklist for legislators,

civil servants and other stakeholders worldwide in their endeavours to ensure that principles and rules of international environmental law are thoroughly addressed when they are drafting new, or updating existing, policies and law.

Following past practice, the names of the participants in the March 2003 meeting have been included in the roster of contributors. Thanks go to all of them for their input during and after the meeting. Thanks are also due to the Chair of CEL, Nicholas Robinson, and the previous Chair, Parvez Hassan, for their continued strong interest and faith in the Covenant.

A special expression of gratitude goes to Dinah Shelton for her willingness to continue serving as Rapporteur for the third edition and for taking on the onerous tasks of preparing the revised version of the Covenant in order to reflect the decisions taken at the meeting and revising the Commentary accordingly.

Last but not least, we gratefully acknowledge the support of the Elizabeth Haub Foundations (Canada), which made this meeting possible, as well as of the UN for enabling members of the UN Secretariat, in particular the Office of Legal Affairs, to participate actively in the review.

Wolfgang E. Burhenne

Steering Committee Member, IUCN Commission on Environmental Law
and
Executive Governor, International Council of Environmental Law

FOREWORD to the second edition

In 1995 the Draft Covenant on Environment and Development was launched at the United Nations' Congress on Public International Law. Professor Edith Brown-Weiss discussed on this occasion the need for such a framework treaty bridging the sectors of environment and development.

Since that time, internationally and regionally several new international agreements have been concluded, on topics as varied as straddling and migratory fish stocks, desertification, and public participation in decision-making. State practice has continued, albeit incrementally, to seek to integrate environment and development. In light of these new developments in public international law, the Commission on Environmental Law of the International Union for the Conservation of Nature and Natural Resources (IUCN) and the International Council of Environmental Law (ICEL), as the two sponsors of the draft Covenant, undertook a review of the text, with a view to reflecting these developments.

We made a general call for comments on the draft of the text and were gratified to receive many useful comments from around the world. We also made an inventory of all new treaties negotiated since 1994,¹ and requested a small team of legal experts to consider comments received as well as the impact of new agreements on the Draft Covenant and to modify its text as appropriate. We have also consulted with the drafters of the "Earth Charter" to ensure consistency among the principles set forth in both texts.

Convinced that the need for an umbrella agreement was increasing more than ever in order to knit together the principles reflected in the sectoral treaties impacting upon environment and development, IUCN and ICEL convened a meeting of the small law experts team on 20–22 May 1999. One of the contributors in the preparation of the initial draft, Ambassador Ramon Piriz-Ballon of Uruguay, assumed the chairmanship of this meeting which was convened in the Treaty Signature Room at United Nations Headquarters in New York. More than one participant noted that the venue was a good omen, encouraging hard work, hot debate and a critical appraisal of needed updates. In the course of the meeting, differences were resolved harmoniously and the consensus is reflected in the following amended text.

Special thanks go to Professor Dinah Shelton, who as rapporteur for the meeting has collected all that was decided, and undertaken to amend the commentary on the Draft Covenant as needed. The list of all who commented and contributed to this revision is too lengthy for inclusion here. We have included the participants in the May 1999 meeting among the roster of contributors.

We are constantly asked about the future of this Draft Covenant. Our response has been consistent since this project began. To secure negotiation internationally of a legally binding agreement

¹ Footnote to list major treaties adopted since 1994.

requires a broad consensus of States. While all States profess a strong desire to promote sustainable development, many as yet struggle internally to integrate the legal requirements of environmentally sustainable development. We are well aware that the codification of international law for sustainable development will take time. A consensus is growing, favouring a framework agreement like that of the Draft Covenant. Many nations are considering or have chosen to adopt a comparable framework law to integrate their sectoral laws within the nation. It is evident to us that consolidation of international norms in such a Draft Covenant would facilitate their integration and implementation nationally, and the consensus in favour of this view is growing.

In the meantime, we are greatly encouraged that in international negotiations diplomats indicate that they are using the Draft Covenant as a checklist to ensure consistency among the treaty obligations for sustainable development and to coordinate their positions with respect to new negotiations. At the same time, we have learned that legislators as well as the responsible ministers and civil servants in many states are using the Draft Covenant as an authoritative reference as well as a useful checklist for national legislation designed to foster sustainable development.

We have, accordingly, resolved to continue the promotion of an integrated umbrella agreement and be patient until there is sufficient support to go forward. We fully comprehend that, in the course of international negotiations, the content of the draft provisions will change. This is to be expected. However, if the expectations of the nations that participated in the 1992 UN Conference on Environment and Development are to be realised, a framework agreement not unlike that set forth in the Draft Covenant will greatly facilitate the process leading to sustainable development.

Wolfgang E. Burhenne, Executive Governor	Nicholas A. Robinson, Chairman
International Council of Environmental Law	IUCN Commission on Environmental Law

FOREWORD to the first edition

The Charter of the United Nations governs relations between States. The Universal Declaration of Human Rights pertains to relations between the State and the individual. The time has come to devise a covenant regulating relations between humankind and nature.

UN Secretary-General's 1990 Report

1992 was a historical watershed, with the convening of the world's largest ever international conference, the UN Conference on Environment and Development (UNCED), attended by representatives of 178 States, including many heads of State and government. UNCED's action plan, Agenda 21, identifies concrete steps to integrate environment and development. UNCED further endorsed roles of environmental law in guiding all nations toward this integration.¹

The law is an essential component for setting and implementing global, regional, and national policy on environment and development. UNCED emphasized the need to integrate "environment and development issues at national, sub-regional, regional and international levels,"² including: (a) elaborating the "balance between environmental and developmental concerns;" (b) clarifying the relationships between the various existing treaties; and (c) ensuring national participation in both developing and implementing these legal measures, with particular focus on developing countries.³

IUCN's Commission on Environmental Law (CEL), in cooperation with the International Council of Environmental Law (ICEL) and with the assistance of UNEP's Environmental Law and Institutions Programme Activity Centre (ELI/PAC), has responded to UNCED's recommendations by elaborating a *Draft International Covenant on Environment and Development*.

Why do nations need a Covenant on environment and development? While there already exists a wide body of international law on this subject, it has, like national law, of necessity developed incrementally, largely in a piecemeal and *ad hoc* manner. Most international agreements are sector-specific in nature, concluded at different times at uneven stages of international knowledge and concern. They also vary regionally, so that norms applicable to some parts of the world do not apply elsewhere, or are global in scope but not yet universally ratified.

¹ See N. A. Robinson, P. Hassan and F. Burhenne-Guilmin (eds.), 1992-94. AGENDA 21 & THE UNCED PROCEEDINGS, Volumes I-VI, Oceana Publications, New York.

² Paragraph 38.7 of Agenda 21.

³ Paragraph 39.1 of Agenda 21.

The reasons why a Draft Covenant is necessary are evident:

- to provide the legal framework to support the further integration of the various aspects of environment and development;
- to create an agreed single set of fundamental principles like a “code of conduct”, as used in many civil law, socialist, and theocratic traditions, which may guide States, intergovernmental organizations, and individuals;
- to consolidate into a single juridical framework the vast body of widely accepted, but disparate principles, of “soft law” on environment and development (many of which are now declaratory of customary international law);
- to facilitate institutional and other linkages to be made between existing treaties and their implementation;
- to reinforce the consensus on basic legal norms, both internationally, where not all States are party to all environmental treaties, even though the principles embodied in them are universally subscribed to, and nationally, where administrative jurisdiction is often fragmented among diverse agencies and the legislation still has gaps;
- to fill in gaps in international law, by placing in a global context principles which only appear in certain places and by adding matters which are of fundamental importance but which are not in any universal treaty;
- to help level the playing field for international trade by minimizing the likelihood of non-tariff barriers based on vastly differing environmental and developmental policies;
- to save on scarce resources and diplomatic time by consolidating in one single instrument norms, which thereafter can be incorporated by reference into future agreements, thereby eliminating unnecessary reformulation and repetition, unless such reformulation is considered necessary; and
- to lay out a common basis upon which future lawmaking efforts might be developed.

Agenda 21 elaborated the “vital aspects” of treaty-making in Chapter 39. There is a need to identify and agree on “universal principles,” to “set priorities for future lawmaking at the global, regional and sub- regional level,” to ensure that “trade policy measures for environmental purposes do not emerge as a disguised restriction on international trade,” and to identify ways to minimize or resolve conflicts between “environmental and social/economic agreements or instruments.”⁴

⁴ Paragraph 39.3 of Agenda 21.

The integration of socio-economic development with the maintenance of renewable natural resources such as fish, soils, forests, fresh drinking water is critical. As pollution levels mount, especially in cities in developing States, maintenance of public health requires their abatement. There must be an increase in the transfer of technology from the “North” to the “South”. As we learn more about the natural world, we also learn how to better protect and manage it; nature reserves and parks are of ever more importance and ever innovative biodiversity conservation techniques are being constantly introduced, but many endangered and other species are still being devastated at an alarming rate. All of these problems are linked to each other and need to be dealt with globally and locally.

This will be difficult to achieve without an international legal instrument of general scope, addressing the whole field of environment and development. The Stockholm Declaration on the Human Environment (1972), the World Charter for Nature (1982), and the Rio Declaration on Environment and Development (1992) contain important widely accepted principles in this regard, but most of these principles cannot be implemented directly. They announce objectives of the international community and in some cases provide directives to achieve them. However, none of them state a general international obligation on all States to protect the whole of the environment, comparable to Article 192 of the Law of the Sea Convention.

The progression of legal principles from recommendatory “soft” to legally clear “hard” is well known in international law. For example, the 1948 Universal Declaration of Human Rights, a “soft-law” instrument was the precursor to the two 1966 UN Covenants on Human Rights. Those treaties elaborated in legally-binding form the principles enunciated in “soft-law” form in the 1948 Universal Declaration of Human Rights. For this reason, the proposed text on environment and development should be called a “Covenant”, as well as to signal the special importance of such a treaty. Also, the UN Secretary-General in 1990 proposed the same sequence (see above). Accordingly, with the Stockholm Declaration, the World Charter for Nature, and later the Rio Declaration behind them, the consensus within the IUCN Commission on Environmental Law was that a general framework treaty on the environment was the next step.

Once the World Charter for Nature was adopted and solemnly proclaimed by the UN General Assembly in 1982,⁵ the CEL Working Group which had drafted that instrument in 1975 perceived the necessity of exploring whether the World Charter for Nature should be followed by a “hard law” instrument. This idea was also taken up by the World Commission on Environment and Development (“Brundtland Commission”), which was established in 1983 along with an associated Experts Group on Environmental Law. The Experts Group recommended that the United Nations prepare a new and legally binding universal Convention on environmental protection and sustainable

⁵ For a detailed account of the development of the World Charter for Nature, see W. Burhenne and W. Irwin (1986). *THE WORLD CHARTER FOR NATURE* (2nd edn). Erich Schmidt Verlag, Berlin.

development.⁶ The World Commission itself in 1986 recommended the preparation of a Universal Declaration and a Convention on environmental protection and sustainable development.⁷ Then, in 1988, expressly taking into account the many “soft-law” instruments already existing, the IUCN General Assembly in San Jose, Costa Rica, expressed its formal support for CEL to continue what it had by then already begun, in preparing elements for an international convention on environmental protection and sustainable development.⁸

Subsequently, a new formal CEL Working Group was established, which met in Bonn in November 1989 under the chairmanship of Dr. Wolfgang E. Burhenne. The composition of this group included leading experts from all regions of the globe, including governmental lawyers, judges, academics and private practitioners, all acting in their personal capacities. Many had been active participants in the 1972 Stockholm Conference, the CEL Working Group on the World Charter for Nature, and the Brundtland Commission’s Experts Group on Environmental Law. A document entitled “Draft Covenant on Environmental Conservation and Sustainable Use of Natural Resources”, containing 88 provisions, was the basis of discussion at that meeting. Many comments and suggestions were made, which were incorporated into the next draft.

The second meeting took place in March 1991, under the chairmanship of Dr. Parvez Hassan, who in 1990 had become the Chair of CEL. At this meeting, the concerns of developing countries were especially focused on, and Articles were elaborated concerning the transboundary movement of hazardous waste, as well as the environmental degradation caused by transnational corporations. The CEL Working Group then sought UNCED PrepComm input. On the request of Iceland and other States, the then current version of the Draft Covenant was translated by the UN into its six official languages and distributed to PrepComm Working Group III as a background document.⁹

The third meeting occurred in the aftermath of UNCED, where a concerted effort was made to incorporate the results of that event into the draft Covenant. Furthermore, the CEL Working

⁶ Proposal 1 states,

It is recommended that a new and legally-binding universal Convention be prepared under United Nations auspices.

- (a) The Convention should consolidate existing and establish new legal principles, and set out the associated rights and responsibilities of States individually and collectively for securing environmental protection and sustainable development to the year 2000 and beyond.
- (b) The Convention should also include effective measures for protecting those rights and for fulfilling those responsibilities.

...

⁷ See World Commission on Environment and Development (1987). *OUR COMMON FUTURE*, Oxford University Press, Oxford, at p. 333.

⁸ For a detailed account of the drafting history, see P. Hassan (1993), *The IUCN Draft International Covenant on Environment and Development: Background and Prospects*, in A. Kiss and F. Burhenne-Guilmin (eds), *A LAW FOR THE ENVIRONMENT: ESSAYS IN HONOUR OF WOLFGANG E. BURHENNE*, EPLP Special Issue, IUCN, Gland and Cambridge, at pp. 43, et. seq.

⁹ It was reproduced as UN Doc. A/CONF/151/PC/WG.III/4.

Group decided to expand its membership to include experts who had been significant contributors to the UNCED process.

A small Drafting Committee met in April, 1993, to continue the work of integrating the ideas of UNCED into the draft Covenant. The text was recast to include a Part on Fundamental Principles addressing, *inter alia*, the right to development, eradication of poverty, demographic policies, wasteful consumption patterns, and international financing mechanisms. The final title of the document became the *Draft International Covenant on Environment and Development*.

The fourth meeting of the full, and now expanded, Working Group took place in Bonn in September 1993. Because of the important moral element of the Draft Covenant, leading members of the IUCN Ethics Working Group were invited to attend. Further, in view of the importance of biological diversity, George Rabb, the Chair of the IUCN Species Survival Commission also attended and contributed actively. The proposals of the Drafting Committee were, on the whole, well received. But as expected, North-South issues emerged in the same manner before the Covenant Working Group as they had done in other international fora such as UNCED. However, it was a measure of the commitment of the participants to reaching amicable and acceptable solutions that the discussions and inputs were not governed or dictated by geographic backgrounds or regional perceptions. The participants brought a deep understanding for the concerns of the developing countries and this was essential to the resolution of complex issues.

The Drafting Committee met again in December of that year, as well as in April 1994, to incorporate all the comments of the full Working Group into the text. In addition, the Draft Covenant was the subject of a two day workshop at the IUCN General Assembly in Buenos Aires in January 1994, where it received a favourable response and helpful comments were made. The final meeting on the Draft Covenant took place in September 1994 in New York, when a small group of specialists on international liability examined and reformulated those provisions dealing with this complex legal subject.

In addition to being reviewed in Buenos Aires, ideas and support for the Draft Covenant were received from discussions at meetings in Washington D.C., USA, in 1993, of the American Society of International Law¹⁰ and of the Southeast Asian Programme in Ocean Law, Policy, and Management (SEAPOL) in Bangkok, Thailand, in 1994. It was also discussed earlier this year at meetings at UNEP and IUCN in Nairobi, Kenya, and at the Asia Law Conference on Social Development, in Hyderabad, India, convened by the International Jurists Organization (Asia).

This document is divided into two sections. The first is the Draft International Covenant on Environment and Development. The second is a commentary which explains and provides the legal derivations for each of the provisions of the Draft Covenant.

¹⁰ See P. Hassan, *Towards and International Covenant on Environment and Development*, ASIL Proc, pp. 513-522 (1993).

The Draft Covenant contains a Preamble and 72 Articles arranged topically in eleven Parts:

The Preamble articulates the scientific realities underlying the Covenant, as well as relevant social, economic and ethical rationales. It also mentions the main legal premise for the Covenant.

Part I states the objective of the Covenant in a single Article.

Part II contains the most widely accepted and established concepts and principles of international environmental law, as they have been proclaimed by numerous international texts. The remaining parts of the Covenant are founded on these “Fundamental Principles”.

Part III creates the broad framework of the obligations of Parties in respect of the environment, towards each other, the international community collectively, and all persons individually. It integrates environment and development and couples rights with duties. The provisions in this Part are applicable to all subsequent sections of the Covenant, in particular to the specific obligations of Parts IV, V and VI.

Part IV provides the specific obligations of Parties respecting the conservation of the biosphere and its various components, including cultural and natural heritage.

Part V concerns substances, technologies and activities that produce adverse effects on the environment. It articulates the duties of Parties to prevent, control and mitigate harm to the environment caused by such substances, technologies and activities.

Part VI sets forth the obligations of the Parties regarding broad structural issues and aspects of international relations that impact on both environmental protection and sustainable development: demography, armed conflict, patterns of international trade and resource utilization.

Part VII contains and develops the traditional rules concerning problems of transboundary pollution and shared natural resources.

Part VIII seeks to develop the national and international procedures necessary to assess, monitor and control environmental impacts. It establishes duties to share environmental information and technology, provide international financing, and foster public awareness through training and education.

Part IX deals with the legal consequences of environmental harm, especially responsibility, liability and the provision of remedies.

Part X places the Draft Covenant in the broader context of international law, by speaking to potential conflicts with existing treaties and concurrent jurisdiction. It also provides for dispute avoidance and settlement mechanisms.

Part XI creates the formal mechanisms available to change the Covenant, details the means to adhere to it, its entry into force and other procedural matters.

The Draft Covenant aims to be a document which could form the basis for intergovernmental negotiations. As co-chairs of this joint project by ICEL and IUCN-CEL, we should observe that none of us in the Drafting Group were so arrogant as to think that we could predict what States would be willing to accept, or to think we drafted the perfect document. We fully expect that the negotiators will do so! The Working Group did wish to provide a solid foundation from which intergovernmental discussions could proceed.

But we must say that we have not been as “progressive” as we might have liked to be, always bearing in mind that the Draft Covenant should first and foremost be realistic. As such, the Draft Covenant contains essentially three types of provisions:

- (a) those which consolidate existing principles of international law, including those “soft-law” principles which were considered ripe for “hardening”;
- (b) those which contain very modest progressive developments; and
- (c) those which are further progressive than in (b) which we felt were absolutely necessary.

In presenting this Draft Covenant on Environment and Development to the United Nations in 1995 on the occasion of its fiftieth anniversary, it is hoped that this will become a negotiating document for a global treaty on environmental conservation and sustainable development. To a very large extent, accomplishing the integrated goals of sustainable development is the UN’s foremost challenge in the next 50 years.

This rather extensive introduction to the Draft Covenant was deliberate. It was meant to highlight the extraordinary reach and scope of this effort. CEL’s objective is not only to restate or codify existing environmental law, but to assist the evolution of “soft-law” into binding law. CEL has tried to be practical and realistic: it always has been mindful of the limitations inherent in the intergovernmental negotiating process and determined to produce a draft which has a reasonable chance of being accepted by States. But this is not to say that we have been timid. We have innovated where we found the progressive development of international law to be essential to achieving the success of UNCED’s objectives. Whether we have struck the right balance is for the future intergovernmental process to judge.

Lastly, it remains for us to thank those who have helped make the Draft Covenant a reality. Many people contributed to this project, too many to count, but the most important contributors are listed at page xxv. Several of the contributors have been associated with prestigious and important legal bodies, such as the Legal Experts Group of the Brundtland Commission, the International Law Commission, UN Member delegations to UNCED and the UN’s Commission on Sustainable Development, and the Institut de Droit International. UNEP should be singled out for special mention in encouraging and contributing senior members of its legal staff to actively participate in the Working Group on a regular basis. We would also like to acknowledge the role of Professor Nicholas

A. Robinson, who as vice-chair of the Working Group provided valuable support. In saying this, however, we stress that all who contributed to this process did so in their personal capacity and the text of the Draft Covenant does not necessarily reflect unanimous agreement.

As to the Commentary, a number of members of the Working Group provided valuable input. Particular thanks are due to Alexandre Kiss and Dinah Shelton for their inputs, especially in reviewing, editing and perfecting the final text. In addition, we are grateful to Richard G. Tarasofsky, of the IUCN Environmental Law Centre, for coordinating the work on the Commentary.

We also thank the Government of the Netherlands and the International Council of Environmental Law for providing the means to support our work. And finally, we are indebted to the staff of the IUCN Environmental Law Centre, who worked so long and hard to support our effort. CEL and ICEL are committed to cooperating with all interested in the further evolution of this process.

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TABLE OF ABBREVIATIONS

ASIL	American Society of International Law
ACP-EEC	Africa Caribbean Pacific – European Economic Community
ASEAN	Association of Southeast Asian Nations
BzU	Beiträge zur Umweltgestaltung, Burhenne (ed.)
CCD	Conference of the Committee of Disarmament
CCPR	International Covenant on Civil and Political Rights
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CEMAT	European Conference of Ministers Responsible for Regional Planning
CESCR	International Covenant on Economic, Social and Cultural Rights
CFCs	Chlorofluorocarbons
CFR	Consolidated Federal Regulations (USA)
CITES	Convention on International Trade in Endangered Species
CMLR	Common Market Law Report
COP	Conference of the Parties
CRC	Convention on the Rights of the Child
EC	European Community
ECE CRTD	Economic Conference for Europe Convention on Civil Liability for Damage Caused during Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels
ECHR	European Court for Human Rights
ECJ	European Court of Justice
ECOSOC	UN Economic and Social Council
EEC	European Economic Community
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
EMEP	Protocol on a Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe
EMuT	International Environmental Law – Multilateral Treaties
ENMOD	Convention on the Prohibition of Military or Other Use of Environmental Modification Techniques
EPL	Environmental Policy and Law
ESoL	International Environmental Soft Law
ETS	European Treaty Series
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GAOR	UN General Assembly Official Records
GATT	General Agreement on Tariffs and Trade
GEF	Global Environment Facility
HRC	UN Human Rights Committee
IACHR	Inter-American Commission on Human Rights
IAEA	International Atomic Energy Agency
ICAO	International Civil Aviation Organization

ICEL	International Council of Environmental Law – toward sustainable development –
ICES	International Council in the Exploration of the Sea
ICJ	International Court of Justice
ICRC	International Committee of the Red Cross
ICSU	International Council for Science
ILA	International Law Association
ILC	International Law Commission (United Nations)
ILM	International Legal Materials
ILO	International Labour Organization
IMCO	International Maritime Consultative Organization
IMO	International Maritime Organization
IMS	International Mountain Society
IPE/SD	International Protection of the Environment/Conservation in Sustainable Development
IUCN	IUCN, The International Union for the Conservation of Nature and Natural Resources
IWC	International Whaling Commission
LDC	London Dumping Convention
LMO	Living Modified Organism
LRTAP	Convention on Long-Range Transboundary Air Pollution
MA	The Millennium Ecosystem Assessment
MARPOL	International Convention on the Prevention of Pollution from Ships
NEPA	National Environmental Protection Act
NGO	Non-Governmental Organization
OAS	Organization of American States
OASTS	Organization of American States Treaty Series
OAU	Organization of African Unity
OECD	Organization for Economic Co-operation and Development
OILPOL	International Convention for the Prevention of Pollution of the Sea by Oil
OP	Operational Program
OSPAR	The Convention for the Protection of the Marine Environment of the North-East Atlantic
PCIJ	Permanent Court of International Justice
PHARE	Action Plan for Co-ordinated Aid to Poland and Hungary and Other Central and Eastern European Countries
POPs	Persistent Organic Pollutants
REIO	Regional Economic Integration Organization
SAPARD	Special Accession Programme for Agricultural and Rural Development
SOLAS	International Convention for Safety of Life at Sea
TRIPS	Agreement on Trade-Related Aspects of Intellectual Property Rights
UKTS	United Kingdom Treaty Series
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea

Table of Abbreviations

UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNEP-WCMC	UNEP World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNGA	United Nations General Assembly
UNHRC	United Nations High Commissioner for Refugees
UNRIAA	United Nations Reports of International Arbitral Awards
UNTS	United Nations Treaty Series
USC	United States Code
USTS	United States Treaty Series
VOC	Volatile Organic Compounds
WCED	World Commission on Environment and Development
WHO	World Health Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wide Fund for Nature

DRAFT INTERNATIONAL COVENANT ON ENVIRONMENT AND DEVELOPMENT

PREAMBLE

Parties to this Covenant:

Recognizing the unity of the biosphere and the interdependence of all its components;

Conscious that humanity is a part of nature and that all life depends on the functioning of natural systems which ensure the supply of energy and nutrients;

Convinced that living in harmony with nature is a prerequisite for sustainable development, because civilization is rooted in nature, which shapes human culture and inspires artistic and scientific achievement;

Sharing the belief that humanity currently stands at a decisive point in history, which calls for a global partnership to achieve sustainable development;

Concerned that the stresses on the Earth have diminished its capacity to support sustainable development;

Mindful of the increasing degradation of the global environment and deterioration and depletion of natural resources, owing to unsustainable consumption, rising population pressures, poverty, pollution, and armed conflict;

Recognizing the need to integrate environmental and developmental policies and laws in order to fulfil basic human needs, improve the quality of life, and ensure a secure future for all;

Aware that respect for human rights and fundamental freedoms, including non-discriminatory access to basic services, is essential to the achievement of sustainable development;

Conscious that the right to development must be fulfilled so as to meet the needs of present and future generations in a sustainable and equitable manner;

Affirming that the international public order for the environment obliges States to respect the biosphere, the rights of other States and the fundamental values of humanity;

Recognizing that intergenerational and intra-generational equity, as well as solidarity and cooperation among peoples, are necessary to overcome the obstacles to sustainable development;

Acknowledging that addressing the situation and needs of developing countries, especially the least developed and of the most environmentally vulnerable, is a high priority, and that developed countries bear a special responsibility for promoting sustainable development;

Affirming the duty of all to respect and to prevent harm to the environment; and promote sustainable development;

Recognizing that poverty eradication is a primary responsibility of each State, necessitates a global partnership, and needs a multifaceted approach in addressing its economic, political, social, environmental and institutional dimensions at all levels;

Committed to ensuring that gender equality and the empowerment and emancipation of women are integrated in all aspects of sustainable development;

Acknowledging the contributions that indigenous peoples have made and continue to make to the respect for and conservation of nature and natural resources;

Confirming that the sustainable use of natural resources is a precondition for the conservation of nature;

Affirming that environmental and developmental decisions should be taken and environmental resources managed on the basis of the subsidiarity principle;

Taking into account, in particular, the Stockholm Declaration on the Human Environment, the World Charter for Nature, the Rio Declaration on Environment and Development and Agenda 21, the Millennium Declaration of the United Nations General Assembly, and the Johannesburg Declaration and Plan of Implementation of the World Summit on Sustainable Development;

Affirming the need for effective governance at all levels in order to implement, enforce and monitor compliance with obligations;

Responding to the call for an integrated international legal framework to provide a consolidated ecological and ethical foundation for present and future international and national policies and laws on environment and development;

AGREE as follows:

Part I. OBJECTIVE

ARTICLE 1

OBJECTIVE

This Covenant provides a comprehensive legal framework with the aim of achieving environmental conservation, an indispensable foundation for sustainable development.

Part II. FUNDAMENTAL PRINCIPLES

In their actions to achieve the objective of this Covenant and to implement its provisions, Parties shall cooperate, in global partnership, and shall be guided, *inter alia*, by the following fundamental principles:

ARTICLE 2

RESPECT FOR ALL LIFE FORMS

Nature as a whole and all life forms warrant respect and are to be safeguarded. The integrity of the Earth's ecological systems shall be maintained and where necessary restored.

ARTICLE 3

COMMON CONCERN OF HUMANITY

The global environment is a common concern of humanity and under the protection of the principles of international law, the dictates of the public conscience and the fundamental values of humanity.

ARTICLE 4

INTERDEPENDENT VALUES

Peace, development, environmental conservation and respect for human rights and fundamental freedoms are indivisible, interrelated and interdependent, and constitute the foundation of a sustainable world.

ARTICLE 5

EQUITY AND JUSTICE

Equity and justice shall guide all decisions affecting the environment and shall oblige each generation to qualify its environmental conduct by anticipating the needs of future generations.

ARTICLE 6

PREVENTION

Prevention of environmental harm is a duty and shall have priority over remedial measures. The costs of pollution prevention, control and reduction measures are to be borne by the originator.

ARTICLE 7

PRECAUTION

Precaution is a duty. Accordingly, even in the absence of scientific certainty, appropriate action shall be taken to anticipate, prevent and monitor the risks of serious or irreversible environmental harm.

ARTICLE 8

PROPORTIONALITY

Among reasonable alternatives for action, preference shall be given to the alternative least harmful to the environment.

ARTICLE 9

RESILIENCE

The capacity of natural systems and human communities to withstand and recover from environmental disturbances and stresses is limited, and shall be sustained or restored as fully as possible.

ARTICLE 10

RIGHT TO DEVELOPMENT

The right to development is universal and inalienable and entails the obligation to meet environmental, as well as social and economic needs of humanity in a sustainable and equitable manner.

ARTICLE 11

ERADICATION OF POVERTY

The eradication of poverty, which necessitates a global partnership, is indispensable for sustainable development. Enhancing the quality of life for all humanity and reducing disparities in standards of living are essential to a just society.

ARTICLE 12

COMMON BUT DIFFERENTIATED RESPONSIBILITIES

States shall meet their duties in accordance with their common but differentiated responsibilities and respective capabilities.

Part III. GENERAL OBLIGATIONS

ARTICLE 13

STATES

1. States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to utilize their resources to meet their environmental and developmental needs, and the duty to ensure that activities within their jurisdiction or control respect the environment of other States or of areas beyond the limits of national jurisdiction.
2. States have the right and the duty, in accordance with the Charter of the United Nations and principles of international law, to take lawful action to protect the environment under their jurisdiction from significant harm caused by activities outside their national jurisdiction. If such harm occurs, they are entitled to appropriate and effective remedies.
3. States shall take all appropriate measures to avoid wasteful use of natural resources and ensure the sustainable use of renewable resources.

ARTICLE 14

PHYSICAL AND LEGAL PERSONS

1. Parties undertake to achieve progressively the full realization of the right of all persons to live in an ecologically sound environment adequate for their development, health, well-being and dignity. They shall devote immediate and special attention to the satisfaction of basic human needs.
2. Parties shall ensure that all physical and legal persons have a duty to protect and conserve the environment.
3. Parties shall ensure that all persons, without being required to state an interest, have the right to require environmental information from public authorities, and to seek, receive, and disseminate information with regard to the environment, subject only to such restrictions as may be provided by law and are necessary for respect for the rights of others, for the protection of national security or for the protection of the environment.
4. Parties shall ensure that all persons have the right to participate effectively during decision-making processes at the local, national and international levels regarding activities, measures, plans, programmes and policies that may have a significant effect on the environment.
5. Parties shall ensure that all persons have the right of effective access to administrative and judicial procedures, including for redress and remedies, to challenge acts or omissions by private persons or public authorities, which contravene national or international environmental law.
6. Parties shall develop or improve mechanisms to facilitate the involvement of indigenous peoples, local communities, and vulnerable or marginalized persons in environmental decision-making at all levels and shall take measures to enable them to pursue sustainable traditional practices.

ARTICLE 15

INDIGENOUS PEOPLES

Indigenous Peoples shall have a collective right to protection of the environment, including their lands, territories and resources, as distinct peoples in accordance with their traditions and customs.

ARTICLE 16

INTEGRATED POLICIES

1. Parties shall pursue integrated policies aimed at eradicating poverty, encouraging sustainable consumption and production patterns, and conserving biological diversity and the natural resource base as overarching objectives of, and essential requirements for, sustainable development.

2. Parties shall, at all stages and at all levels, integrate environmental conservation into the planning and implementation of their policies and activities, giving full and equal consideration to environmental, economic, social and cultural factors. To this end, the Parties shall:
 - (a) conduct regular national reviews of environmental and developmental policies and plans;
 - (b) enact, periodically review, and enforce laws and regulations; and
 - (c) establish or strengthen institutional structures and procedures to integrate environmental and developmental issues in all spheres of decision-making.
3. Parties which are members of international organizations undertake to pursue within such organizations policies which are consistent with the provisions of this Covenant.

ARTICLE 17

TRANSFER OR TRANSFORMATION OF ENVIRONMENTAL HARM

Parties shall not resolve their environmental problems by transferring, directly or indirectly, harm or hazards from one area or medium to another or transforming one type of environmental harm to another.

ARTICLE 18

EMERGENCIES

1. Parties shall, without delay and by the most expeditious means available, notify potentially affected States and competent international organizations of any emergency originating within their jurisdiction or control, or of which they have knowledge, that may cause harm to the environment.
2. A Party within whose jurisdiction or control such emergency originates shall immediately take all practicable measures necessitated by the circumstances, in cooperation with affected and potentially affected States, and where appropriate, competent international organizations, to prevent, mitigate and eliminate harmful effects of the emergency.
3. Parties shall take all necessary measures to provide immediate relief for those displaced by natural disasters.

Part IV. OBLIGATIONS RELATING TO NATURAL SYSTEMS AND RESOURCES

ARTICLE 19

STRATOSPHERIC OZONE

Parties shall take all appropriate measures to prevent or restrict human activities which modify or are likely to modify the stratospheric ozone layer in ways that adversely affect human health and the environment.

ARTICLE 20

GLOBAL CLIMATE

Parties shall take precautionary measures to protect the Earth's climate system and mitigate the adverse effects of climate change. To these ends, they shall cooperate internationally *inter alia* to:

- (a) Measure their emissions and implement nationally appropriate mitigation actions; and
- (b) Establish risk management and implement adaptation measures to enable climate-resilient development.

ARTICLE 21

SOIL

Parties shall take all appropriate measures to ensure the conservation and where necessary the regeneration of soils for living systems by taking effective measures to prevent large-scale conversion and soil degradation, to combat desertification, to safeguard the processes of organic decomposition and to promote the continuing fertility of soils.

ARTICLE 22

WATER

Parties shall take all appropriate measures to maintain and restore the quality of all forms of water, including both salt and fresh water, whether contained in the atmosphere, the oceans, in underground aquifers or watercourses such as lakes and rivers to meet basic human needs and as an essential component of aquatic systems. Parties also shall take all appropriate measures, in particular through integrated conservation and management of water resources and appropriate sanitary measures, to ensure the availability of sufficient quantities of water to satisfy basic human needs and to maintain aquatic systems.

ARTICLE 23

ECOSYSTEM SERVICES

Parties shall take appropriate measures to conserve and, where necessary and possible, restore natural systems which support life on Earth in all its diversity, and maintain and restore the ecological functions and services of these systems as an essential basis for sustainable development, including, *inter alia*,

- (a) forests as natural means to control erosion and floods, and for their role in the climate system;
- (b) freshwater wetlands and floodplains as habitat, recharge areas for groundwater, aquifers, floodwater buffers, filters and oxidizing areas for contaminants;

- (c) marine ecosystems as essential habitats for support of fisheries, as natural defenses against coastal erosion, as reservoirs of biological diversity, and for their role in maintaining global geochemical cycles including the global climate system; and
- (d) polar regions as essential to global environmental values and the global climate system.

ARTICLE 24

ECOSYSTEM APPROACH

Parties shall, as appropriate, implement their obligations according to relevant principles of the ecosystem approach. In particular they shall:

- (a) manage aquatic systems as integrated units covering the full extent of the catchment, recharge and discharge areas; and
- (b) manage coastal systems as integrated units covering both aquatic and terrestrial components.

ARTICLE 25

BIOLOGICAL DIVERSITY

1. Parties shall take all appropriate measures to conserve biological diversity, including species diversity, genetic diversity within species, and ecosystem diversity, especially through *in situ* conservation based on the concept of an ecological network. To this end, Parties shall:
 - (a) integrate conservation and sustainable use of biological diversity and its components into their physical planning systems, by ecosystem management;
 - (b) establish a system of protected areas, where appropriate with buffer zones and interconnected corridors; and
 - (c) prohibit the taking or destruction of endangered species, protect their habitats, and where necessary develop and apply recovery or restoration plans for such species.
2. Parties shall regulate or manage biological resources with a view to ensuring their conservation, sustainable use, and where necessary and possible, restoration. To this end, based on the ecosystem approach, Parties shall:
 - (a) develop and implement conservation and management plans for harvested biological resources;
 - (b) prevent a decrease in the quantity of harvested populations of animals and plants below the level necessary to ensure stable recruitment;
 - (c) safeguard or restore habitats essential to the continued existence of the species or populations concerned;

- (d) maintain or restore ecological relationships between harvested and dependent or associated species or populations; and
- (e) prevent or minimize incidental taking of non-target species and prohibit indiscriminate means of taking.

ARTICLE 26

CULTURAL AND NATURAL HERITAGE

Parties shall take all appropriate measures to protect cultural and natural heritage including measures:

- (a) to conserve or rehabilitate, *in situ*, cultural and natural monuments, and areas, including landscapes, of outstanding scientific, cultural, spiritual, or aesthetic significance;
- (b) to prevent all measures and acts which are likely to harm or threaten such monuments or areas; and
- (c) to preserve, *ex situ*, heritage at risk of loss.

Part V. OBLIGATIONS RELATING TO PROCESSES AND ACTIVITIES

ARTICLE 27

PREVENTION OF HARM

Parties shall identify and evaluate substances, technologies, processes and categories of activities that have or are likely to have significant adverse effects on the environment or public health. They shall provide a system of authorization and survey, regulate or manage them with a view to preventing any significant harm.

ARTICLE 28

POLLUTION

Parties shall take, individually or jointly, all appropriate measures to prevent, reduce, control, and eliminate, to the fullest extent possible, detrimental changes in the environment from all forms of pollution. For this purpose, they shall use the best environmental practices and best available technologies at their disposal and shall endeavour to harmonize their policies. In particular, Parties shall, to the extent possible, eliminate pollution that is toxic, hazardous, or bioaccumulative.

ARTICLE 29

WASTE

1. Parties shall ensure that the generation of waste is prevented or minimized, particularly through the use of non-waste technology.

2. Waste shall be reused, recovered, and recycled.
3. Waste which cannot be reused, recovered, or recycled, shall be disposed of in an environmentally sound manner, to the fullest extent possible at source.
4. Under no circumstances shall a Party export or permit the export of waste where it has reason to believe that such waste will not be managed in an environmentally sound manner or to a place where waste import has been banned. If a transboundary movement cannot be completed in compliance with these requirements, the exporting Party shall ensure that such waste is taken back if alternative environmentally sound arrangements cannot be made.

ARTICLE 30

INTRODUCTION OF ALIEN OR MODIFIED ORGANISMS

1. Parties shall prohibit the intentional introduction into the environment of alien or modified organisms which may have adverse effects on other organisms or the environment. They shall also take the appropriate measures to prevent invasion, accidental introduction or escape of such organisms.
2. Parties shall assess and as appropriate, prevent or effectively manage the risks of adverse effects on other organisms or the environment associated with the development, use and release of modified organisms resulting from biotechnologies.
3. Parties shall take all appropriate measures to control and, to the extent possible, eradicate alien or modified organisms when such organisms have or are likely to have a significant adverse effect on other organisms or the environment.
4. Parties shall take all appropriate measures to contain the natural reservoirs of zoonotic diseases, in order to prevent their transmission between species.

Part VI. OBLIGATIONS RELATING TO GLOBAL ISSUES

ARTICLE 31

ACTION TO ERADICATE POVERTY

Parties, individually or in partnership with other States, international organizations and civil society, in particular the private economic sector, shall adopt measures aimed at the eradication of poverty, including measures to:

- (a) legally empower people living in poverty to exercise their rights including the right to development;
- (b) respect, ensure, promote and fulfil the rights of vulnerable and marginalized persons, in particular to food, water, housing and other basic needs;
- (c) enable all individuals to achieve sustainable livelihoods, in particular by increasing access to and control over resources, including land;

- (d) rehabilitate degraded resources, to the extent practicable, and promote sustainable use of resources for basic human needs;
- (e) provide potable water and sanitation;
- (f) provide education, with a particular focus on, and with the participation of women and girl children, indigenous peoples, local communities, and vulnerable or marginalized persons; and
- (g) support microcredit and microinsurance schemes and the development of microfinance institutions and their capacities.

ARTICLE 32

CONSUMPTION AND PRODUCTION PATTERNS

Parties shall reduce and seek to eliminate unsustainable patterns of consumption and production. Such strategies shall be designed to reduce the use of non-renewable resources in the production process. To this end, the Parties shall:

- (a) collect and disseminate information on consumption patterns and develop or improve methodologies of analysis;
- (b) ensure that all raw materials and energy are conserved and used as efficiently as possible in all products and processes;
- (c) require reusing and recycling of materials to the fullest extent possible;
- (d) promote product designs that increase reuse and recycling and as far as possible eliminate waste;
- (e) facilitate the role and participation of consumer organizations in promoting more sustainable consumption patterns;
- (f) mandate that economic enterprises adopt corporate social responsibility programmes that moderate consumption and contribute to social and environmental well-being; and
- (g) ensure that sufficient product information is made available to the public to enable consumers to make informed environmental choices.

ARTICLE 33

DEMOGRAPHIC POLICIES

Parties shall develop or strengthen demographic policies in order to achieve sustainable development. To this end, the Parties shall:

- (a) conduct studies to estimate the size of the human population their environment is capable of supporting and develop programmes relating to population growth at corresponding levels;

- (b) cooperate to alleviate the stress on natural support systems caused by major population flows;
- (c) cooperate as requested to provide a necessary infrastructure on a priority basis for areas with rapid population growth;
- (d) provide to their populations full information on the options concerning family planning; and
- (e) provide for long-term resettlement of persons displaced by changing environmental conditions.

ARTICLE 34

TRADE AND ENVIRONMENT

1. Parties shall cooperate to establish and maintain an open and non-discriminatory international trading system that equitably meets the developmental and environmental needs of present and future generations.

To this end, Parties shall endeavour to ensure that:

- (a) trade does not lead to the wasteful use of natural resources nor interfere with their conservation or sustainable use;
 - (b) trade measures addressing transboundary or global environmental problems are based, as far as possible, on international consensus;
 - (c) trade measures for environmental purposes do not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade;
 - (d) unilateral trade measures by importing Parties in response to activities which are harmful or potentially harmful to the environment outside the jurisdiction of such Parties are avoided as far as possible or occur only after consultation with affected States and are implemented in a transparent manner; and
 - (e) prices of commodities and raw materials reflect the full direct and indirect social and environmental costs of their extraction, production, transport, marketing, and, where appropriate, ultimate disposal.
2. Parties shall endeavour to ensure that for biological resources, products and derivatives:
 - (a) trade is based on management plans for the sustainable harvesting of such resources and does not endanger any species or ecosystem; and
 - (b) any Party whose biological resources cannot be exported due to its observance of prohibitions imposed by a multilateral environmental agreement should receive appropriate compensation for losses it suffers as a result of non-compliance by any other Party.

ARTICLE 35

TRANSNATIONAL ECONOMIC ACTIVITIES

1. Parties shall take measures to prevent significant environmental harm and minimize the risk thereof from economic activities conducted under their jurisdiction or control.
2. Parties shall require, from all economic entities conducting activities under their jurisdiction or control, information on:
 - (a) potential or actual harm to the environment resulting from their activities;
 - (b) the relevant environmental legal requirements and standards applicable in the State of origin and the techniques used in that State to comply with such requirements and standards; and
 - (c) reasonably available data and information concerning the state-of-the-art techniques to prevent environmental harm.
3. In the case of activities of foreign origin, the Party of origin shall, upon request of the host Party,
 - (a) provide it with all relevant information on applicable environmental requirements and standards within the limits of its jurisdiction; and
 - (b) enter into consultations with the host Party to enable the host Party to take appropriate measures regarding such activities.
4. The Party of origin shall ensure that, in the absence of equally strict or higher environmental standards in the host Party or express agreement by the host Party to the contrary, its nationals apply the relevant standards of the Party of origin as a minimum.
5. Parties shall cooperate with and encourage economic entities to develop and abide by guidelines or codes of conduct of corporate social responsibility.

ARTICLE 36

MILITARY AND HOSTILE ACTIVITIES

1. Parties shall protect the environment during periods of armed conflict. In particular, the Parties shall:
 - (a) observe, outside combat zones, all national and international environmental rules by which they are bound in times of peace;
 - (b) take all reasonable measures to protect the environment against avoidable harm in areas of armed conflict;
 - (c) not employ or threaten to employ methods or means of warfare which are intended or may be expected to cause widespread, long-term, or severe harm to the environment

and ensure that such means and methods of warfare are not developed, produced, tested, or transferred; and

- (d) not use the destruction or modification of the environment as a means of warfare or reprisal.
2. Parties shall cooperate to further develop and implement rules and measures to protect the environment during armed conflict; until a more complete code of environmental protection has been adopted, in cases not covered by international agreements and regulations, the biosphere and all its constituent elements and processes remain under the protection and authority of the principle of international law derived from established custom, from dictates of the public conscience, and from the principles and fundamental values of humanity acting as steward for present and future generations.
 3. Parties shall take the necessary measures to protect natural and cultural sites of special interest, in particular sites designated for protection under applicable national laws and international treaties, as well as potentially dangerous installations, from being subject to attack as a result of armed conflict, insurgency, terrorism, or sabotage. Military personnel shall be instructed as to the existence and location of such sites and installations.
 4. Parties shall take measures to ensure that persons are held responsible for the deliberate and intentional use of means or methods of warfare which cause widespread, long-term, or severe harm to the environment and/or for terrorist acts causing or intended to cause harm to the environment.
 5. Parties shall ensure that military personnel, aircraft, vessels and other equipment and installations are not exempted in times of peace from rules, standards, and measures for environmental protection.

Part VII. TRANSBOUNDARY ISSUES

ARTICLE 37

TRANSBOUNDARY ENVIRONMENTAL EFFECTS

Parties shall take appropriate measures to prevent or minimize the risk of harm to the environment of other States or of areas beyond national jurisdiction. When a proposed activity may generate harm, the Parties shall:

- (a) ensure that an environmental impact assessment is undertaken;
- (b) give prior and timely notification, along with relevant information to potentially affected States, and consult in good faith with those States at an early stage;
- (c) grant potentially affected persons in other States access to and due process in administrative and judicial proceedings relating to the proposed activity, without discrimination on the basis of residence or nationality;
- (d) require prior authorization for the said activity, as well as for any major change or proposed change in the activity likely to transform it into one falling within the scope of Part IX.

ARTICLE 38

PRIOR INFORMED CONSENT

Prior to the export of domestically prohibited or internationally regulated hazardous substances and waste, as well as genetically-modified organisms for release into the environment, Parties shall require the prior informed consent of importing and, where appropriate, transit States.

ARTICLE 39

TRANSBOUNDARY NATURAL RESOURCES

Parties shall cooperate in the conservation, management and restoration of natural resources in areas under the jurisdiction of more than one State, or fully or partly in areas beyond the limits of national jurisdiction. To this end, based *inter alia* on the ecosystem approach:

- (a) Parties sharing the same natural system shall make every effort to manage that system as a single ecological unit notwithstanding national boundaries. They shall cooperate on the basis of equity and reciprocity, in particular through bilateral and multilateral agreements or arrangements, in order to develop harmonized policies and strategies covering the entire system and the ecosystems it contains. With regard to aquatic systems, such agreements or arrangements shall cover the catchment area, including the adjoining marine environment and recharge and discharge areas in the case of aquifers.
- (b) Parties sharing the same species or population, whether migratory or not, shall make every effort to treat such species or population as a single biological unit. They shall cooperate, in particular through bilateral and multilateral agreements, in order to maintain the species or population concerned in a favourable conservation status. In the case of a harvested species or population, all the Parties that are range states of that species or population shall cooperate in the development and implementation of a joint management plan to ensure the sustainable use of that resource and the equitable sharing of the benefits deriving from that use.

Part VIII. IMPLEMENTATION AND COOPERATION

ARTICLE 40

ACTION PLANS

Parties shall prepare and periodically review and update national and, as appropriate, bilateral or regional action plans, with targets and timetables, to meet the objective of this Covenant.

ARTICLE 41

PHYSICAL PLANNING

1. Parties shall establish and implement integrated physical planning systems, including provisions for infrastructure and town and country planning, with a view to integrating conservation of the environment, including biological diversity, into social and economic development.

2. In such planning, Parties shall take into account natural systems, in particular aquifers, drainage basins, coastal and marine areas and any other areas constituting identifiable ecological units.
3. Parties shall take into account the natural characteristics and ecological constraints of areas when allocating them for municipal, agricultural, grazing, forestry, or other use.

ARTICLE 42

ENVIRONMENTAL IMPACT ASSESSMENT

1. Parties shall establish or strengthen environmental impact assessment procedures to ensure that all activities and technologies which pose significant risks or are likely to have a significant adverse effect on the environment are evaluated before they are authorized.
2. The assessment shall include scientifically sound evaluation of:
 - (a) all effects, including cumulative, long-term, indirect, long-distance, and transboundary effects;
 - (b) alternatives, including not conducting the proposed activity; and
 - (c) measures to avert, minimize or offset the potential adverse effects.
3. Parties shall designate appropriate national authorities to ensure that environmental impact assessments are conducted under procedures that are open, transparent, effective and accessible to concerned States, international organizations and physical and legal persons. Parties shall also ensure that the authority deciding on approval takes into consideration all observations made during the environmental impact assessment process and makes its final decision public.
4. Parties shall conduct periodic reviews both to determine whether activities approved by them are carried out in compliance with the conditions set out in the approval and to evaluate the effectiveness of the prescribed mitigation measures. The results of such reviews shall be made public.
5. Parties shall conduct strategic environmental assessment of any policies, programmes and plans that are likely to have a significant adverse effect on the environment and shall ensure that their environmental consequences are duly taken into account.

ARTICLE 43

ENVIRONMENTAL STANDARDS AND CONTROLS

1. Parties shall cooperate to formulate, develop, and strengthen international rules, standards and recommended practices, as well as indicators on issues of common concern for the conservation of the environment and sustainable use of natural resources, taking into account the need for flexible means of implementation based on their respective capabilities.

2. Parties shall adopt, strengthen and implement specific national standards, including emission, quality, product, and process standards, designed to prevent or abate harm to the environment and to enhance or restore environmental quality.

ARTICLE 44

MONITORING OF ENVIRONMENTAL QUALITY

1. Parties shall conduct scientific research and establish, strengthen, and implement monitoring programmes for the collection of environmental data and information to determine, *inter alia*,
 - (a) the condition of all components of the environment, including changes in the status of natural resources and the ecologically sensitive areas; and
 - (b) the effects, especially the cumulative or synergistic effects, of particular substances, activities, or combinations thereof on the environment.
2. To this end and as appropriate, Parties shall cooperate with each other and with competent international organizations to develop expertise and infrastructure capable of establishing universally acceptable standards of environmental health.
3. Parties shall, at regular intervals, publish and disseminate a national report on the state of the environment, including information on the quality of and pressures on the environment.

ARTICLE 45

CONTINGENCY AND EMERGENCY PLANNING

Parties shall evaluate the risk of environmental emergencies. They shall individually or jointly with other states and, where appropriate, in cooperation with competent international organizations, build their capacity to evaluate risks of environmental emergencies. They shall individually and jointly develop contingency plans for environmental emergencies and other natural disasters and put in place logistical materials, personnel and strategies in readiness for effective and timely response.

ARTICLE 46

SCIENTIFIC AND TECHNICAL COOPERATION

1. Parties shall promote scientific and technical cooperation in the field of environmental conservation and sustainable use of natural resources, particularly developing countries. In promoting such cooperation, special attention should be given to the development and strengthening of national capacities, through the development of human resources, legislation and institutions.
2. Parties shall:
 - (a) cooperate to establish comparable or standardized research techniques, harmonize international methods to measure environmental parameters, and promote widespread and effective participation of all States in establishing such methodologies;

- (b) exchange, on a regular basis, appropriate scientific, technical and legal data, information and experience, in particular concerning the status of biological resources; and
- (c) inform each other on their environmental conservation measures and endeavour to coordinate such measures, especially with respect to transboundary natural resources.

ARTICLE 47

DEVELOPMENT AND TRANSFER OF TECHNOLOGY

Parties shall encourage and strengthen cooperation and establish joint research programmes and ventures for the development and use, as well as access to and transfer of, environmentally sound technologies on mutually agreed terms, with a view to accelerating the transition to sustainable development.

ARTICLE 48

SHARING BENEFITS OF BIOTECHNOLOGY

Parties shall provide for the fair and equitable sharing of benefits arising out of biotechnologies based upon genetic resources with States providing access to such genetic resources on mutually agreed terms.

ARTICLE 49

INFORMATION AND KNOWLEDGE

1. Parties shall facilitate the exchange of publicly available information relevant to the conservation and sustainable use of natural resources, taking into account the special needs of developing countries.
2. Parties shall require that access to traditional knowledge of indigenous and local communities be subject to the prior informed consent of the concerned communities and to specific regulations recognizing their rights to, and the appropriate economic value of, such knowledge.

ARTICLE 50

EDUCATION, TRAINING AND PUBLIC AWARENESS

1. Parties shall establish institutions of learning specifically for capacity building at all levels, including promotion of basic literacy in management of environment and natural resources, including creation of data banks on environmental knowledge, which empower national populations to promote sustainable development.
2. Parties shall disseminate environmental knowledge by educating their public and, in particular, by providing to indigenous peoples and local communities, information, educational materials, and opportunities for environmental training and education.

3. Parties shall cooperate with each other, and where appropriate with international and national organizations, to promote environmental education, training, capacity building, and public awareness.

ARTICLE 51

NATIONAL FINANCIAL RESOURCES

1. Parties undertake to provide, in accordance with their capabilities, financial support and incentives for those national activities aimed at achieving the objectives of this Covenant.
2. Parties shall pursue innovative ways of generating public and private financial resources for sustainable development.

ARTICLE 52

INTERNATIONAL FINANCIAL RESOURCES

1. Parties shall cooperate in establishing, maintaining, and strengthening ways and means of providing new and additional financial resources, particularly to developing countries, for:
 - (a) environmentally sound development programmes and projects;
 - (b) capacity building and enhancement of relevant institutions;
 - (c) measures to address major environmental problems of global concern, and measures to implement this Covenant, where such measures would entail special or abnormal burdens due to the lack of sufficient financial resources, expertise or technical capacity;
 - (d) compensation for binding commitments to forego the economic use of specific natural resources where such use would endanger the environment; and
 - (e) making available, under favourable conditions, the transfer of environmentally sound technologies.
2. Parties, taking into account their respective capabilities and specific national and regional developmental priorities, objectives and circumstances, shall endeavour to augment their aid programmes to reach the United Nations General Assembly target of at least 0.7 per cent of Gross National Product for Official Development Assistance. Parties shall encourage public/private initiatives that enhance access to additional financial resources.
3. Parties shall consider ways and means of providing debt relief to developing countries with unsustainable debt burdens, including by way of cancellations, rescheduling or conversion of debts to investments, and debt-for-sustainable-development exchanges.
4. A Party that provides financial resources to a State for activities that may result in a significant adverse impact on the environment shall, in cooperation with the recipient State, ensure that an environmental impact assessment of the activities is conducted. The resources provided shall include those necessary for the recipient State to carry out such assessment.

Part IX. RESPONSIBILITY AND LIABILITY

ARTICLE 53

STATE RESPONSIBILITY

States Parties are responsible under international law for a breach of the obligations imposed on them by this Covenant.

ARTICLE 54

LIABILITY

1. States Parties shall take the necessary measures to ensure that prompt and adequate compensation is available to victims of significant transboundary damage caused by hazardous activities located within their territory or otherwise under their jurisdiction or control.
2. These measures shall include, *inter alia*:
 - (a) The imposition of liability, without requiring proof of fault, on the operator or, where appropriate, other person or entity.
 - (b) Any conditions, limitations or exceptions to such liability shall be consistent with the principle of prompt and adequate compensation to victims, as well as with the responsibility of States 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.

ARTICLE 55

RESPONSE MEASURES

Upon the occurrence of an incident involving a harmful activity which results or is likely to result in transboundary environmental damage, the State Party of origin, with the appropriate involvement of the operator, shall ensure that appropriate response measures are taken. States Parties 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.

ARTICLE 56

INTERNATIONAL AND DOMESTIC REMEDIES

1. States Parties 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 harmful activities located within their territory or otherwise under their jurisdiction or control.
2. States Parties shall provide for recourse to international claims settlement procedures that are expeditious and involve minimal expense.

ARTICLE 57

NON-DISCRIMINATION

Victims of transboundary damage shall have the right of access to remedies in the State Party 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.

ARTICLE 58

HARMFUL ACTIVITIES

States of origin Parties to the present Covenant shall cease activities causing significant transboundary harm to the environment in the course of their normal operation and, if appropriate, make full reparation for the damages caused during the development of the activity.

ARTICLE 59

OFFENSES

Parties shall establish, as appropriate, criminal or administrative offenses for violations of environmental law, particularly for negligent or intentional acts causing damage to the environment or for harmful activities that have not been authorized.

ARTICLE 60

CIRCUMSTANCES PRECLUDING WRONGFULNESS

1. The wrongful character of acts in breach of the obligations set forth in the present Covenant shall be precluded by consent, self-defence, legal countermeasures with respect to an internationally wrongful act, *force majeure*, distress and state of necessity. The invocation of a circumstance precluding wrongfulness is without prejudice to
 - (a) compliance with the obligation in question, if and to the extent that the circumstance precluding wrongfulness no longer exists, and
 - (b) the question of compensation for any material loss caused by the act in question.
2. In cases where there are no circumstances precluding wrongfulness, but the State affected suffers the damage due in part to its own negligence, the extent of any redress or the level of any compensation may be reduced to the extent that the damage is caused by the negligence of that State Party.

ARTICLE 61

EXCEPTIONS TO LIABILITY

There shall be no liability if the damage is:

- (a) caused by hostilities conducted in conformity with the rules applicable in armed conflict

and the requirements of Article 36 of this Covenant, without prejudice to the question of responsibility for a violation of the prohibition of the use of force;

- (b) directly due to a natural phenomenon of an exceptional and inevitable character; or
- (c) caused by an act or omission of the affected State or of a third party.

ARTICLE 62

COMPETENT COURT AND APPLICABLE LAW

1. Actions for compensation of damages attaching to the civil liability of the operator may be brought only in the competent courts of a State Party that is either the affected State, the State of origin or the State where the defendant has his domicile or residence or principal place of business.
2. The competent court shall apply its national law in all matters of substance or procedure not specifically dealt with in these articles.

Part X. APPLICATION AND COMPLIANCE

ARTICLE 63

OTHER TREATIES

Parties are encouraged to become parties to treaties furthering the objective of this Covenant.

ARTICLE 64

STRICTER MEASURES

1. The provisions of this Covenant shall not affect the right of Parties individually or jointly to adopt and implement stricter measures than those required under this Covenant.
2. The provisions of this Covenant shall not prejudice any stricter obligation which Parties have entered into or may enter into under existing or future treaties.

ARTICLE 65

AREAS BEYOND THE LIMITS OF NATIONAL JURISDICTION

In areas beyond the limits of national jurisdiction, Parties shall observe the provisions of the present Covenant to the full extent of their competence. They shall cooperate to ensure that such areas are covered to the extent possible by legal regimes for their environmental protection.

ARTICLE 66

RELATIONS WITH NON-PARTIES

Parties shall encourage non-Parties to act in a manner that is consistent with the objective of this Covenant.

ARTICLE 67

REPORTING

Parties undertake to submit periodic reports to the Secretary-General of the United Nations on the measures they have adopted, progress made, and difficulties encountered in implementing their obligations under this Covenant.

ARTICLE 68

COMPLIANCE AND DISPUTE AVOIDANCE

In the framework of environmental treaties to which they are party or by other means, Parties to this Covenant shall maintain, strengthen or promote the establishment of procedures and institutional mechanisms, including enquiry and fact-finding, to assist and encourage States to comply fully with their obligations and to avoid environmental disputes. Such procedures and mechanisms should improve and strengthen reporting requirements, and, as appropriate, include considerations of communications from members of the public.

ARTICLE 69

SETTLEMENT OF DISPUTES

1. Parties shall settle disputes concerning the interpretation or application of this Covenant by peaceful means, such as by negotiation, enquiry, mediation, conciliation, arbitration, and judicial settlement, and where appropriate, resort to regional agencies or arrangements, or by any other peaceful means of their own choice.
2. If Parties to such a dispute do not reach agreement within one year following the notification by one Party to another that a dispute exists, the dispute shall, at the request of one of the Parties, be submitted to either an arbitral tribunal, including the Permanent Court of Arbitration, or to judicial settlement, including by the International Court of Justice and the International Tribunal for the Law of the Sea as appropriate.

ARTICLE 70

REVIEW CONFERENCE

After the entry into force of this Covenant, the Secretary-General of the United Nations shall convene every five years a conference of the Parties to it in order to review its implementation. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State or regional economic integration organization not party to this Covenant may be represented at the

Review Conference as Observers. The International Union for Conservation of Nature and Natural Resources and the International Council for Science may also be represented as observers. Any non-governmental organization accredited to the UN Economic and Social Council and qualified in matters covered by this Covenant, may be represented at a session of the Review Conference as an observer in accordance with the rules of procedure the Review Conference may adopt.

Part XI. FINAL CLAUSES

ARTICLE 71

AMENDMENT

1. Any Party may propose amendments to this Covenant. The text of any such proposed amendment shall be submitted to the Secretary-General of the United Nations who shall transmit it, within six months, to all Parties.
2. At the request of one-third of Parties, the Secretary-General of the United Nations shall call a special conference to consider the proposed amendment. Parties shall make every effort to reach agreement on any proposed amendment by consensus. If all efforts at reaching a consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a two-thirds majority vote of Parties to this Covenant which are present and voting at the special conference. The adopted amendment shall be communicated by the Secretary-General of the United Nations, who shall circulate it to all Parties for ratification, acceptance or approval. For purposes of this Article, present and voting means Parties present and casting an affirmative or negative vote.
3. Instruments of ratification, acceptance or approval in respect of an amendment shall be deposited with the Secretary-General of the United Nations. An amendment shall enter into force for those States accepting it on the ninetieth day after the date of receipt by the Secretary-General of the United Nations of an instrument of ratification, acceptance or approval by at least two-thirds of the Parties. An amendment shall enter into force for any other Party on the ninetieth day following the date on which that Party deposits its instrument of ratification, acceptance or approval of the said amendment with the Secretary-General of the United Nations.

ARTICLE 72

SIGNATURE

1. This Covenant shall be open for signature at _____ by all States and any regional economic integration organization from _____ until _____.
2. For purposes of this Covenant, regional economic integration organization means an organization constituted by sovereign States of a given region, to which its Member States have transferred competence in respect of matters governed by this Covenant and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to it.

ARTICLE 73

RATIFICATION, ACCEPTANCE OR APPROVAL

1. This Covenant shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. Instruments of ratification, acceptance, or approval, shall be deposited with the Secretary-General of the United Nations.
2. Any regional economic integration organization which becomes party to this Covenant without any of its Member States being party shall be bound by all the obligations under this Covenant. In the case of such organizations, one or more of whose Member States is party to this Covenant, the organization and its Member States shall decide on their respective responsibilities for the performance of their obligations under this Covenant. In such cases, the organization and the Member States shall not be entitled to exercise rights under this Covenant concurrently.
3. In their instruments of ratification, acceptance or approval, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by this Covenant. These organizations shall also inform the Depositary of any relevant modification in the extent of their competence.

ARTICLE 74

ACCESSION

1. This Covenant shall be open for accession by States and by regional economic integration organizations. The instruments of accession shall be deposited with the Secretary-General of the United Nations.
2. In their instruments of accession, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by this Covenant. These organizations shall also inform the Secretary-General of the United Nations of any relevant modification in the extent of their competence.

ARTICLE 75

ENTRY INTO FORCE

1. This Covenant shall enter into force on the ninetieth day after the deposit of the twenty-first instrument of ratification, acceptance, approval, or accession.
2. For each State or regional economic integration organization that ratifies, accepts, or approves, this Covenant or accedes thereto after the deposit of the twenty-first instrument of ratification, acceptance, approval, or accession, this Covenant shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval, or accession.
3. For the purposes of Paragraph 1 above, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by Member States of such organization.

ARTICLE 76

RESERVATIONS

No reservations may be made to this Covenant.

ARTICLE 77

WITHDRAWALS

1. At any time after two years from the date on which this Covenant has entered into force for a Party; that Party may withdraw from this Covenant by giving written notification to the Secretary-General of the United Nations.
2. Any such withdrawal shall take effect upon expiry of one year after the date of its receipt by the Secretary-General of the United Nations, or on such later date as may be specified in the notification of the withdrawal.

ARTICLE 78

DEPOSITARY

1. The Secretary-General of the United Nations shall be the Depositary of this Covenant.
2. In addition to his functions as Depositary, the Secretary-General shall:
 - (a) establish a schedule for the submission, consideration, and dissemination of the periodic reports submitted under Article 67;
 - (b) report to all Parties, as well as to competent international organizations, on issues of a general nature that have arisen with respect to the implementation of this Covenant; and
 - (c) convene review conferences in accordance with Article 70 of this Covenant.

ARTICLE 79

AUTHENTIC TEXTS

The Arabic, Chinese, English, French, Russian and Spanish texts of this Covenant are equally authentic.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Covenant.

COMMENTARY ON THE DRAFT INTERNATIONAL COVENANT ON ENVIRONMENT AND DEVELOPMENT¹

PREAMBLE

Parties to this Covenant:

Article 72 (Signature) and 73 (Ratification, Acceptance or Approval) of the Covenant open it for signature and adherence by all States and regional economic integration organizations. The latter are defined in Paragraph 2 of Article 73 (see Commentary thereto). Throughout the Draft Covenant the term “Parties” is used to designate those adhering to this instrument. In some provisions the term “States” is used for one of two reasons. First, where the Covenant is restating customary international law on fundamental issues, it extends beyond Parties (e.g., Article 13(1) (States)). Second, the term “State” is used where the objective of the Covenant can only be met by extending certain rights or benefits to States that are not Parties (e.g., Articles 13(2) (States), 18(1) (Emergencies) and Article 34(1)(d) (Trade and Environment)). In a few cases, where the rights or duties only pertain to Parties who are States, as distinct from regional economic integration organizations, the term “States Parties” is used (see especially Part IX (Responsibility and Liability)).

Recognizing the unity of the biosphere and the interdependence of all its components;

This clause recognizes the uniqueness of the Earth’s biosphere and stresses the interdependence of its various components. The unhindered interaction of these components is the basis for the continued existence and well-being of the biosphere.² Any significant impact on the environment can produce effects both inside and outside national territory, as evidenced by the consequences of long-range transboundary air pollution, the widespread impact of ozone-depleting substances, and global climate change resulting from the emission of greenhouse gases. Each form of life is unique and interacts both as a discrete part and an integral component of the natural systems which form the biosphere upon which mankind depends.

Conscious that humanity is a part of nature and that all life depends on the functioning of natural systems which ensure the supply of energy and nutrients;

This statement has its origin in the World Charter for Nature.³ It contains two ideas. First, human beings cannot be separated from nature whatever the degree of scientific and technological progress humans manage to achieve: there is a unity with and dependence on nature. Second, all

¹ Editorial Notes: (1) each provision of the Draft Covenant is reproduced and then followed by the commentary on that provision; (2) for source references, see the chronological Table of International Legal Instruments on page 185.

² The clause is supported by the World Charter for Nature (1982) (preamble). See also, the Convention on Biological Diversity (1992) and Agenda 21 (1992) (particularly Chapter 15 (Conservation of Biological Diversity)).

³ See also the Rio Declaration on Environment and Development (1992). These instruments drew upon earlier expressions of similar ideas in the Stockholm Declaration on the Human Environment (1972), and the Covenant on Economic, Social and Cultural Rights (CESCR) (1966).

life, including human, requires the energy and nutrients that nature supplies. These basic needs can be ensured only if the functions of all components of nature, as they interrelate, are not disrupted.

Convinced that living in harmony with nature is a prerequisite for sustainable development, because civilization is rooted in nature, which shapes human culture and inspires artistic and scientific achievement;

Throughout history, the peoples of Earth have adapted themselves to the various ecosystems in which they live. As the Preamble to the Stockholm Declaration recognized, “Man is both creature and moulder of his environment, which gives him physical sustenance and affords him the opportunity for intellectual, moral, social and spiritual growth. ... Both aspects of man’s environment, the natural and the man-made, are essential to his well-being and to the enjoyment of basic human rights – even the right to life itself”.⁴ To a considerable extent, all civilisations spring from and are shaped by the quality of their surrounding natural elements; indeed, the histories of different peoples are inseparable from the natural conditions in which they have lived for millennia. Nature also inspires human culture. Art, literature and science cannot be understood, or even imagined, without acknowledging the influence of nature and its components. Thus, cultural diversity, like biological diversity, emerges from the various ecosystems.⁵ Human beings must continue to respect this diversity, because no society will achieve sustainable development unless it adapts to and builds upon its surrounding natural systems.

Sharing the belief that humanity currently stands at a decisive point in history, which calls for a global partnership to achieve sustainable development;

Humanity stands at a decisive point in history because the growing degradation of the world’s environment, detailed in the following paragraphs, could produce irreversible destruction. It therefore is incumbent upon mankind to recognize fully the urgency of maintaining the stability and quality of nature to ensure the continued functioning of the biosphere. The need to maintain and improve the conditions of life, including the conservation of biological diversity, is a common thread binding together humanity. Progress in communications and the ability to perceive the biosphere as a whole, along with science and technology capable of addressing global problems, increase the responsibility and capacity to act. This fundamental common interest leads to the new concept in international law of a global partnership. The requirement of “partnership” is based upon the existing fundamental obligation of co-operation between States,⁶ as well as with and between individuals, implying greater interdependence and joint responsibility for the well-being of all.⁷

4 Stockholm Declaration of the United Nations Conference on the Human Environment, 16 June 1972, UN Doc. A/CONF.48/14/Rev.1 at 3 (1973).

5 See Preamble to the World Charter for Nature (1982), which asserts that “Civilization is rooted in nature, which has shaped human culture and influenced all artistic and scientific achievement, and living in harmony with nature gives man the best opportunities for the development of his creativity, and for rest and recreation”.

6 Article 1(3) of the UN Charter (1945); Article 1 of the Declaration of Principles of International Law (1970) (Principle of Co-operation).

7 This proposition is supported by Part XII of UNCLOS (1982), especially Articles 194(1), 197, 202,

Concerned that the stresses on the Earth have diminished its capacity to support sustainable development;

The Millennium Ecosystem Assessment (MA) concluded that over the past 50 years, humans have changed ecosystems more rapidly and extensively than in any comparable period of time in human history, largely to meet rapidly growing demands for food, fresh water, timber, fiber and fuel. This has resulted in a substantial and largely irreversible loss in the diversity of life on Earth. The changes that have been made to ecosystems have contributed to net gains in human well-being and economic development, but these gains have been achieved at growing costs in the form of the degradation of many ecosystem services, increased risks of nonlinear changes, and the exacerbation of poverty for some groups of people. These problems, unless addressed, will substantially diminish the benefits that future generations obtain from ecosystems. The degradation of ecosystem services could grow significantly worse during the first half of this century and is a barrier to achieving the Millennium Development Goals. The bottom line of the MA findings is that human actions are depleting Earth's natural capital, putting such strain on the environment that the ability of the planet's ecosystems to sustain future generations can no longer be taken for granted.

Mindful of the increasing degradation of the global environment and deterioration and depletion of natural resources, owing to unsustainable consumption, rising population pressures, poverty, pollution, and armed conflict;

This clause distinguishes the two categories of environmental problems addressed by the Draft Covenant and refers to their major underlying causes. The first problem is increasing degradation of the global environment or biosphere and the natural processes which enable it to support human life. The second problem is the deterioration and depletion of natural resources, renewable and non-renewable, on which our continued existence depends. As detailed in the 2002 Johannesburg Declaration on Sustainable Development “[l]oss of biodiversity continues, fish stocks continue to be depleted, desertification claims more and more fertile land, the adverse effects of climate change are already evident, natural disasters are more frequent and more devastating, and developing countries more vulnerable, and air, water and marine pollution continue to rob millions of a decent life”. These problems already have led to the conclusion of numerous treaties and other international instruments. Responding to these problems is a fundamental motivation for the Draft Covenant. The second part of this clause points to some of the major causes of environmental and resource depletion problems. All of the causes have been mentioned in earlier international documents.⁸ Whether they affect the environment and natural resources directly or indirectly, they are addressed in substantive provisions of the Draft Covenant.

205; Article 1 of the UN Charter (1945) and by Agenda 21 (1992), particularly Chapters 1 (Preamble), 34 (Transfer of environmentally sound technology, cooperation and capacity-building), 35 (Science for sustainable development), and 37 (National mechanisms and international cooperation for capacity-building in developing countries).

⁸ See e.g., Covenant on Economic, Social and Cultural Rights (1966); Covenant on Civil and Political Rights (CCPR) (1966); ENMOD Convention (1976); LRTAP Convention (1979). See also Principle 24 of the Rio Declaration (1992); Stockholm Declaration (1972); World Charter for Nature (1982); Universal Declaration of Human Rights (1948); Declaration on Social Progress and Development

Recognizing the need to integrate environmental and developmental policies and laws in order to fulfil basic human needs, improve the quality of life, and ensure a secure future for all;

This clause emphasises that neither environmental protection nor long-term economic development can be achieved independently of each other. Instead, as recognized in Principle 4 of the Rio Declaration, and in Paragraph 6 of the Ministerial Declaration adopted at the World Trade Organization meeting in Doha (20 November 2001) the two fields are interdependent and mutually reinforcing. Together with the social dimension reflected in the paragraph's references to human needs and the quality of life, this is the true meaning of the term "sustainable development".⁹ The World Summit on Sustainable Development (2002) identified environmental, economic and social goals as the three "pillars" of sustainable development. At the end of the conference the participating governments adopted a Declaration on Sustainable Development affirming their will to "assume a collective responsibility to advance and strengthen the interdependent and mutually reinforcing pillars of sustainable development – economic development, social development and environmental protection – at local, national, regional and global levels".

The second part of this clause makes clear that human beings will benefit from the integration of environment and development in the ways indicated. "Quality of life" implies more than just the satisfaction of human needs, incorporating also non-material attributes. Achievement of both forms part of the obligations of States contained in the Universal Declaration of Human Rights and the Covenant on Economic, Social and Cultural Rights (1966).¹⁰

The reference to a more secure future indicates that environmental deterioration and problems of development, such as economic dislocation and poverty can affect international peace and security in the sense of the UN Charter.¹¹

Aware that respect for human rights and fundamental freedoms, including non-discriminatory access to basic services, is essential to the achievement of sustainable development;

The reference in this clause to sustainable development is based on the conception developed in the prior clause and adds a third interdependent element, based on the texts approved at the Stockholm and Rio Conferences, the World Summit on Sustainable Development (WSSD) and the Vienna Declaration on Human Rights (1993). It reflects the understanding that just as environmental

(1969); and Agenda 21 (1992): Chapter 3 (Combating Poverty), Chapter 4 (Changing consumption patterns), Chapter 5 (Demographic dynamics and sustainability), and Chapter 7 (Promoting sustainable human settlement development).

⁹ World Conservation Strategy (1980), WCED Brundtland Report (1987), Caring for the Earth (1991).

¹⁰ Universal Declaration of Human Rights (1948); Covenant on Economic, Social and Cultural Rights (1966).

¹¹ See Article 1 of the UN Charter (1945).

protection and economic development are interdependent, both can be achieved only if human rights and fundamental freedoms are respected. Such respect is required by customary international law and numerous international instruments.¹² Neither environmental protection, nor economic development can justify denial of such rights and freedoms. On the contrary, respect for human rights enhances progress towards sustainable development, as agreed by the UN Commission on Human Rights in resolution 2003/71 (25 April 2003), which reaffirmed that peace, security, stability and respect for human rights and fundamental freedoms are essential for achieving sustainable development.

The reference to basic services reflects the commitment undertaken in 2002 at the World Summit on Sustainable Development, which concluded with the participating governments undertaking to halve by 2015 the number of persons who lack access to safe drinking water and sanitation.¹³ Numerous environmental and human rights texts refer to access to such basic services as essential rights and obligations. CESCR General Comment No. 14 on the right to health lists “access to safe and potable water and adequate sanitation” as one of the underlying determinants of health,¹⁴ and thus encompassed within the guaranteed right to health.¹⁵

Conscious that the right to development must be fulfilled so as to meet the needs of present and future generations in a sustainable and equitable manner;

The reference to the “right to development” derives from the Rio Declaration, the Johannesburg Declaration on Sustainable Development, and other international texts.¹⁶ They stress that the right to development means a right to sustainable development. This is confirmed by the reference to future generations and to sustainability. At the same time, the needs of present and future generations, as well as equity, recall the prior clauses concerned with human rights and indicate those who hold the right to development. See also Articles 5 and 10 herein.

Affirming that the international public order for the environment obliges States to respect the biosphere, the rights of other States and the fundamental values of humanity;

The development of global public policy seems to be increasingly recognized. International legal instruments and doctrine now often refer to the ‘common interest of humanity’¹⁷ or ‘common

¹² E.g., Article 55(c) of the UN Charter (1945), and generally Covenant on Economic, Social and Cultural Rights (1966), Covenant on Civil and Political Rights (1966), European Human Rights Convention (1950), American Convention on Human Rights (1969), African Charter on Human Rights (1981). See also the Universal Declaration of Human Rights (1948).

¹³ Plan of Implementation of the World Summit on Sustainable Development, A/CONF.199/CRP.7.

¹⁴ Committee on Economic, Social and Cultural Rights, General Comment No. 14: The right to the highest attainable standard of health, UN Doc. E/C.12/2000/4 (2000), at Para. 4.

¹⁵ *Ibid.*, Para. 11.

¹⁶ Principle 3.

¹⁷ See, UNCLOS, Article 137(2); Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (1967), preamble Para. 2.

concern of mankind’ to identify fundamental issues that could form part of international public policy. The Commentary to Covenant Article 3 (Common Concern of Humanity) provides further discussion and background. References also are frequently made to ‘the international community’ as an entity or authority of collective action.¹⁸ In addition, multilateral international agreements increasingly contain provisions that affect non-party States, either providing incentives to adhere to the norms, or allowing parties to take coercive measures that in practice require conforming behaviour of States not adhering to the treaty. The UN Charter itself contains a list of fundamental principles and in Article 2(6) asserts that these may be imposed on non-parties if necessary to ensure international peace and security.

Recognizing that intergenerational and intra-generational equity, as well as solidarity and cooperation among peoples, are necessary to overcome the obstacles to sustainable development;

The peoples of the current generation must work with each other (intra-generational equity), taking into account the interests of future generations (intergenerational equity). Beyond the fundamental protections of human rights, States and the international community must fairly allocate and regulate scarce resources to ensure that the benefits of environmental resources, the costs associated with protecting them, and any degradation that occurs (*i.e.* all the benefits and burdens) are equitably shared by all members of society. The use of the term “responsibility” includes a moral obligation that each person has towards others. Solidarity and co-operation have long been recognized as duties of States. The reference here indicates that for achieving sustainable development these duties must extend to peoples as well. Education and long-term planning may be necessary aspects of the duties of the present generation.

Acknowledging that addressing the situation and needs of developing countries, especially the least developed and of the most environmentally vulnerable, is a high priority, and that developed countries bear a special responsibility for promoting sustainable development;

This clause is a restatement of the conclusions of UNCED contained in the Rio Declaration.¹⁹ Developing countries have special needs relative to their individual situations which must be taken into account and given special priority. Because of their greater capability and the greater proportion of environmental stress that they cause, developed countries share a responsibility to assist developing countries and especially the least developed ones to progress towards the goal of sustainable development. The concept of common but differentiated responsibilities, which was affirmed at the Rio Conference, is one of the foundations of this clause. The 2002 WSSD Plan of Implementation, which similarly mentions the principle of common but differentiated responsibilities, further declares that “(p)overty eradication, changing unsustainable patterns of production and consumption,

¹⁸ See e.g., Article 53, Vienna Convention on the Law of Treaties; Articles 136–137 UNCLOS.

¹⁹ Principle 6 of the Rio Declaration (1992).

and protecting and managing the natural resource base of economic and social development are overarching objectives of and essential requirements for sustainable development”.

Affirming the duty of all to respect and to prevent harm to the environment; and promote sustainable development;

This clause is comprehensive in a double sense. First, it addresses all actors: international organizations, States, the business community, associations and individuals. Second, the object of protection is the totality of the environment. In carrying out the duty, all actors must abstain from harm to the environment (“respect”) and take affirmative action (“preserve”) to protect and, where necessary, rehabilitate it. Finally, the term “duty” expresses a legal obligation and not only a moral one.

Recognizing that poverty eradication is a primary responsibility of each State, necessitates a global partnership, and needs a multifaceted approach in addressing its economic, political, social, environmental and institutional dimensions at all levels;

This paragraph introduces the key elements that are contained in Article 11 (Eradication of Poverty) and made operational in Article 31 (Action to Eradicate Poverty). It expresses three propositions derived from prior international texts, based upon an understanding that poverty represents an enormous global challenge and its eradication is indispensable for sustainable development. First, poverty eradication is the primary responsibility of each country and should be addressed through national policies and development strategies.²⁰ Second, and at the same time, concerted and concrete measures are required at all levels to enable developing countries to achieve their sustainable development through poverty-related targets and goals. This is expressed in the necessity of a global partnership. Third, eradication of poverty should be addressed in an integrated way, as set out in the Johannesburg Plan of Implementation and other international instruments.²¹ Poverty is multidimensional, involving not only low incomes and assets, but limited economic opportunity, multiple deprivations such as hunger and malnutrition, unsafe water, poor sanitation, disease and inadequate education, as well as relative powerlessness and severely limited freedom of choice and action in all walks of life. Thus, poverty eradication must take into account the importance of sectoral strategies in such areas as education, development of human resources, health, human settlements, rural, local and community development, productive employment, population, and of course, environment, water and sanitation, food security, and energy. Within the context of action for the eradication of poverty, special attention should be given to the multidimensional nature of the problem.

²⁰ See G.A. Res. 57/266, Implementation of the First United Nations Decade for the Eradication of Poverty (1997-2006).

²¹ See e.g., the Asian Development Bank, Poverty Reduction Strategy (1999); World Bank, World Development Report 2000/2001, 2002; OECD Development Assistance Committee, Guidelines for Poverty Reduction (2001).

Committed to ensuring that gender equality and the empowerment and emancipation of women are integrated in all aspects of sustainable development;

The empowerment and emancipation of women are essential to achieving sustainable development, as recognized by the Rio Declaration, Agenda 21, the WSSD and the General Assembly resolutions on Implementation of the first United Nations Decade for the Eradication of Poverty (56/207 of 21 December 2001 and 57/266). The participating states at the WSSD affirmed their commitment to ensuring that women's empowerment, emancipation and gender equality are integrated in all the activities encompassed within Agenda 21, the Millennium development goals and the WSSD Plan of Implementation. This clause reiterates that pledge. The WSSD Plan of Implementation calls on all countries to promote women's access to and full and equal participation in decision-making at all levels, mainstreaming gender perspectives in all policies and strategies 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. At the regional level, the African Convention on the Rights of Women is notable for recognizing the right to a healthy environment and the particular role of women in environmental protection.²²

Acknowledging the contributions that indigenous peoples have made and continue to make to the respect for and conservation of nature and natural resources;

Various international instruments have recognized that respect for indigenous knowledge, cultures and traditional practices contributes to sustainable and equitable development and proper management of the environment.²³ Agenda 21 acknowledges indigenous contributions to conservation, as does the Convention on Biological Diversity, which refers to the traditional knowledge, innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biological diversity. It accepts that indigenous and local communities have their

²² Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, adopted by the 2nd Ordinary Session of the Assembly of the African Union, Maputo, 11 July 2003. Its Article 18 provides (Right to a Healthy and Sustainable Environment):

1. Women shall have the right to live in a healthy and sustainable environment.
2. States Parties shall take all appropriate measures to:
 - a) ensure greater participation of women in the planning, management and preservation of the environment and the sustainable use of natural resources at all levels;
 - b) promote research and investment in new and renewable energy sources and appropriate technologies, including information technologies and facilitate women's access to, and participation in their control;
 - c) protect and enable the development of women's indigenous knowledge systems;
 - d) regulate the management, processing, storage and disposal of domestic waste;
 - e) ensure that proper standards are followed for the storage, transportation and disposal of toxic waste.

²³ See e.g., United Nations Declaration on the Rights of Indigenous Peoples, adopted by General Assembly Resolution 61/295 on 13 September 2007 (preamble).

own systems for the protection and transmission of traditional knowledge as part of their customary law and notes the need to strengthen national laws, policies and other measures, where necessary, along with measures at the international level, to protect traditional knowledge, innovations and practices of indigenous and local communities.

Confirming that the sustainable use of natural resources is a precondition for the conservation of nature;

The obligation of all states to conserve the environment and the earth's natural resources is fundamental to the objective of the Draft Covenant. The IUCN World Conservation Strategy demonstrates the conservation principle in establishing as its objectives: maintaining essential ecological processes and life-support systems; preserving genetic diversity; and achieving sustainable utilization of species and ecosystems. Conservation implies sustainable use to assure the maintenance of living resources. The World Commission on Environment and Development provided in this respect that states shall maintain ecosystems and related ecological processes essential for the functioning of the biosphere in all its diversity; maintain maximum biological diversity; and observe the principle of optimum sustainable yield in the exploitation of living natural resources.

Affirming that environmental and developmental decisions should be taken and environmental resources managed on the basis of the subsidiarity principle;

Subsidiarity means making decisions and implementing them at the lowest effective level of government or other organization, beginning with grass roots or local action. Each higher level of governance is subsidiary to the level below it, serving as a safety net when problems cannot be resolved by local or regional actors without assistance from the wider community. Subsidiarity is a fundamental principle within the European Union and many federal States. In addition, it appears in the European Landscape Convention (Florence, 10 October 2000) in Art. 4: "Each Party shall implement this Convention, in particular Articles 5 and 6, according to its own division of powers, in conformity with its constitutional principles and administrative arrangements, and respecting the principle of subsidiarity, taking into account the European Charter of Local Self-government. Without derogating from the provisions of this Convention, each Party shall harmonize the implementation of this Convention with its own policies". This idea also is woven throughout the United Nations Desertification Convention. It helps ensure the implementation of principles of public information and participation. In addition, empirical evidence suggests that local decision-making often produces more effective environmental protection than does a centralized or top-down approach.

Taking into account, in particular, the Stockholm Declaration on the Human Environment, the World Charter for Nature, the Rio Declaration on Environment and Development and Agenda 21, the Millennium Declaration of the United Nations General Assembly, and the Johannesburg Declaration and Plan of Implementation of the World Summit on Sustainable Development;

This clause refers to the major precedents for the Draft Covenant. As noted in the Johannesburg Declaration on Sustainable Development, the international community agreed in Stockholm on the urgent need to respond to the problem of environmental deterioration. The World Charter

for Nature expressed the moral and legal obligations of all participants in the international system to protect and conserve nature for present and future generations. In Rio de Janeiro, participants agreed that the protection of the environment and social and economic development are all integral and fundamental to sustainable development, based on the Rio Declaration's Principles. To achieve such development, the participating States adopted Agenda 21. These prior texts and the Millennium Declaration of the United Nations General Assembly, were reaffirmed at the WSSD and provide the basis for the provisions of the Draft Covenant.

Affirming the need for effective governance at all levels in order to implement, enforce and monitor compliance with obligations;

Governance is the process of decision-making and the process by which decisions are implemented (or not implemented). It also can be defined as the rational organization of society in order to achieve the objectives emerging from its common concerns emerging from material, economic, historical and cultural foundations and needs. Governance includes the creation and the functioning of institutions and of norms at various levels from the local to the global. UNESCAP has determined that good governance has 8 major characteristics. It is participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law. It assures that corruption is minimized, the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision-making. It is also responsive to the present and future needs of society.²⁴

Responding to the call for an integrated international legal framework to provide a consolidated ecological and ethical foundation for present and future international and national policies and laws on environment and development;

The last clause describes the motivations in law for the Draft Covenant. It reflects the basic need for an integrated legal framework, comparable to those existing in other fields of international law, such as the law of the sea and the international protection of human rights. In addition to legal norms, it provides ecological and ethical guidance to all actors. Finally, the reference to "future" international and national laws and policies indicates the recognition that environmental protection is inherently dynamic and, as conditions change, must evolve on the basis of a permanent framework. The Draft Covenant is intended to supply the necessary framework.

AGREE as follows:

²⁴ UN Economic and Social Commission for Asia and the Pacific, "What is Good Governance?" available at <http://www.unescap.org/pdd/prs/ProjectActivities/Ongoing/gg/governance.asp> (visited July 10, 2010)

PART I. OBJECTIVE

ARTICLE 1

OBJECTIVE

This Covenant provides a comprehensive legal framework with the aim of achieving environmental conservation, an indispensable foundation for sustainable development.

The stated objective of the Covenant emphasises the indivisibility of “environmental conservation” and “sustainable development”, as articulated in the documents adopted at UNCED. The use of the singular – “objective” rather than “objectives” – reinforces the indivisibility of the two concepts. This provision alludes to the need for a comprehensive approach as it calls for integrating rights and obligations. The third point to be noted is the use of the term “establishing”. This reflects the Draft Covenant’s dual aspects of codification and progressive development.

In 2002 a definition of sustainable development appeared in Art. 3(1)(a) of the Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific:²⁵

For the purpose of this Convention sustainable development means the process of progressive change in the quality of life of human beings, which places it as the centre and primordial subject of development, by means of economic growth with social equity and the transformation of methods of production and consumption patterns, and which is sustained in the ecological balance and vital support of the region. This process implies respect for regional, national and local ethnic and cultural diversity, and full participation of people in peaceful coexistence and in harmony with nature, without prejudice to and ensuring the quality of life of future generations.

The concept of “environmental services” has also become linked with sustainable development. According to the 2002 Antigua Convention it means the services provided by the functions of nature itself, such as the protection of soil by trees, the natural filtration and purification of water, and the protection of habitat for biodiversity (Art. 3(1)(c)).

²⁵ Antigua, 18 February 2002.

PART II. FUNDAMENTAL PRINCIPLES

In their actions to achieve the objective of this Covenant and to implement its provisions, Parties shall cooperate, in global partnership, and shall be guided, *inter alia*, by the following fundamental principles:

The Fundamental Principles express the underlying legal norms in a declaratory form and constitute the basis for all the obligations contained in the Draft Covenant. They reflect international consensus, contained in legal texts adopted since the founding of the United Nations. For example, the 2009 Lisbon Treaty on the Functioning of the European Union, Title XX, sets out the principles meant to guide policy on the environment, principles that shape legislation in the EU. Article 191(2) provides that EC environmental policy shall be based on “the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay”. The objective of the Draft Covenant cannot be met without respect for these principles. The chapeau to this Part indicates that this list of Fundamental Principles is not intended to be exhaustive.

ARTICLE 2

RESPECT FOR ALL LIFE FORMS

Nature as a whole and all life forms warrant respect and are to be safeguarded. The integrity of the Earth’s ecological systems shall be maintained and where necessary restored.

The World Charter for Nature (1982) proclaims that every form of life is unique and warrants respect regardless of its material worth to man.²⁶ The 1979 Berne Convention on the Conservation of European Wildlife and Natural Habitats was one of the first treaties to express a basis for environmental protection in the intrinsic value of nature. The contracting Parties to the 1992 Convention on Biological Diversity similarly profess that they are “[c]onscious of the intrinsic value of biological diversity and of the ecological, genetic, social, economic, scientific, educational, cultural, recreational and aesthetic values of biological diversity and its components”.²⁷ The intrinsic value of the biosphere is here integrated with an understanding that humans make up part of the universe and cannot exist without conservation of the biosphere and the ecosystems comprising it. Humans are not viewed as apart from or above the natural universe, but as a linked and interdependent part of it. It follows that because all parts of the natural web are linked, they must all be protected and conserved. It is in this sense that “intrinsic value” may be understood.

²⁶ Preamble.

²⁷ Preamble, Paragraph 1, Convention on Biological Diversity (1992). Other international treaties that take into account the intrinsic value of nature include the 1980 Convention for the Conservation of Antarctic Marine Living Resources, the 1991 Protocol to the Antarctic Treaty on Environmental Protection, and the 1973 CITES Convention.

The provision focuses on nature as a whole because of the interrelationship of all its components. The phrase “every form of life” reflects the concept of biological diversity.²⁸ It does not focus on the protection of individual members of a class.

The phrase “independent of its value to humanity” is a reaction to former utilitarian approaches which limited legal protection to forms of life perceived to be immediately useful to economic interests, ignoring the functions of different species in ecosystems and even their future or potential usefulness.

ARTICLE 3

COMMON CONCERN OF HUMANITY

The global environment is a common concern of humanity and under the protection of the principles of international law, the dictates of the public conscience and the fundamental values of humanity.

Article 3 states the basis upon which the international community at all levels can and must take joint and separate action to protect the environment. It is based on the scientific reality that harm to the environment resulting from human activities (e.g., depletion of the stratospheric ozone layer, climate modification, and the erosion of biological diversity) adversely affects all humanity. Worldwide cooperation to take concerted action is necessary to avoid environmental disaster. This implies acceptance of both the right and the duty of the international community as a whole to have concern for the global environment.

“Common concern” does not connote specific rules and obligations, but establishes the general basis for the international community to act. “Common concern” must be distinguished from doctrines of *res communis* and “common heritage of mankind”, both of which provide an inadequate legal basis for protecting the global environment although they might entail some conservation elements. *Res communis* is the customary international law regime applicable to areas beyond national jurisdiction: in particular, to the high seas and outer space, and grants States freedom of use, including access to resources, so long as there is due regard for the interests of other States.²⁹ As such, *res communis* can risk creating a “tragedy of the commons”, especially with regard to living resources. In contrast, “common heritage” also permits access, but the international agreements which have applied it, notably UNCLOS, established international management regimes to ensure that resources are conserved, exploitation is for the benefit of all, and the proceeds of the exploitation are distributed in an equitable fashion, including to States which do not actually

²⁸ The Convention on Biological Diversity (1992) defines the term “biological diversity” as:

... the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

²⁹ See e.g., Pacific Fur Seals Arbitration, (1898) and the High Seas Convention (1958).

participate in the exploitation.³⁰ The notion of “common concern” was developed specifically to be a less comprehensive concept than “common heritage”.

The conclusion that the global environment is a matter of “common concern” implies that it can no longer be considered as solely within the domestic jurisdiction of States due to its global importance and consequences for all.³¹ It also expresses a shift from classical treaty-making notions of reciprocity and material advantage, to action in the long-term interests of humanity.

The interdependence of the world’s ecosystems and the severity of current environmental problems call for global solutions to most environmental problems, thereby justifying designation of the global environment as a matter of “common concern”.³² The concept can be found in many multilateral environmental treaties and the term itself appears in texts concerning global climate change³³ and the conservation of biological diversity and genetic resources.³⁴ The 1979 Bonn Convention on the Conservation of Migratory Species of Wild Animals recognizes in its preamble that “wild animals in their innumerable forms are an irreplaceable part of the Earth’s natural system which must be conserved for the good of mankind ...[E]ach generation of man holds the resources of the Earth for future generations and has an obligation to ensure that this legacy is conserved and, where utilized, is used wisely”. The Convention on the Conservation of European Wildlife and Natural Habitats, adopted several months after the Bonn Convention joins the concepts of general interest and future humanity by recognizing that wild flora and fauna constitute a natural heritage that “needs to be handed on to future generations”. The inclusion of smaller areas in the common concern is seen in the Paris Convention for the Protection of the Marine Environment of the North-East Atlantic, adopted several months after the Convention on Biological Diversity. It recognizes that “the marine environment and the fauna and flora which it supports are of vital importance to all nations”. More recently, the UN Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa refers to “the urgent concern of the international community, including states and international organizations, about the adverse impacts of desertification and drought,” although only some parts of the world are directly concerned. The Draft Covenant is the first international treaty to declare the global environment as such a “common concern”.³⁵

³⁰ To date, “common heritage” has only been applied in treaty law in relation to the moon and the deep seabed. The UNESCO Convention for the Protection of World Cultural and Natural Heritage uses the similar term “world heritage of mankind as a whole”.

³¹ As such, Article 2(7) of the UN Charter (1945) would not apply to preclude international action on environmental matters.

³² This view is reflected in UNGA Resolution 44/228 on convening UNCED and is implicit in Article 192 of UNCLOS (1982) and Principles 2 and 7 of the Rio Declaration (1992).

³³ Preamble to the Climate Change Convention (1992); UNGA Resolutions 43/53 (1988), 44/207 (1989), 45/212 (1990), and 46/169 (1991).

³⁴ Preamble to the Convention on Biological Diversity (1992); and preamble to the International Treaty on Plant Genetic Resources for Food and Agriculture (2001).

³⁵ See also the Langkawi Declaration on the Environment (1990), where the Heads of Government of the

In its application to the environment, “common concern” contains both spatial and temporal elements. The spatial element considers the Earth as a whole and the state of the biosphere in its entirety because of the interdependence of all its elements. This aspect calls for equitable burden sharing among States in their efforts to resolve global environmental problems through acceptance of “common but differentiated responsibilities”.³⁶ The temporal element recognizes that the consequences of environmental degradation are often long-term and that duties to protect the environment are owed to future generations (see Article 4 (Interdependent Values)).

The World Conservation Congress held in Amman, Jordan, in 2000 adopted a recommendation urging all member States of the UN to endorse a policy that respects a minimum standard for environmental protection in the absence of relevant international conventional law or regulation. The language was adapted from the Martens Clause contained in the preambular paragraphs of international conventions establishing the international rules applicable in armed conflicts. This minimum standard applies “until a more complete international code of environmental protection has been adopted”. The level of protection afforded the biosphere and all its constituent elements and processes is to be based upon principles of international law “derived from established custom, from dictates of the public conscience, and from the principles and fundamental values of humanity acting as steward for present and future generations”.

This provision is directed at all actors, including non-governmental organizations and individuals, reflecting the view prevalent in the Rio Declaration that non-State actors have an important role to play in the attainment of sustainable development.³⁷ The same approach can be seen in Article 14(4) (Physical and Legal Persons).

ARTICLE 4

INTERDEPENDENT VALUES

Peace, development, environmental conservation and respect for human rights and fundamental freedoms are indivisible, interrelated and interdependent, and constitute the foundation of a sustainable world.

Article 4 brings together various international precedents, recognizing that all four of the subjects mentioned form an indivisible whole.

Commonwealth declared that “the current threat to the environment is a common concern of all mankind”; Beijing Ministerial Declaration on Environment and Development (1991) which deems environmental protection and sustainable development “as a matter of common concern to humankind”.

³⁶ This concept is reflected in Principle 7 of the Rio Declaration (1992) and in Article 3(1) of the Climate Change Convention (1992). See also Articles 24 and 25 of the Straddling Stocks Agreement, recognizing the special requirements of developing States.

³⁷ See e.g., Principles 10, 20, 21, 22, and 27.

At the first United Nations Conference on Human Rights, held in Teheran in 1968, the international community proclaimed the interdependence of peace and human rights.³⁸ The General Assembly later declared the interdependence of peace, development and human rights in Resolution 37/199 of 18 December 1982. More recently, the 1993 Vienna Declaration on Human Rights affirmed that efforts by the United Nations to ensure respect for and implementation of human rights contribute to the establishment of conditions conducive to peace, security and economic and social development.³⁹ It also declared that democracy, development and respect for human rights and fundamental freedoms are interdependent and mutually reinforcing.⁴⁰

Principle 1 of the Stockholm Declaration underlined the link between human rights and environmental protection, affirming 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 ...”. The Rio Declaration similarly states that human beings “are entitled to a healthy and productive life in harmony with nature”.⁴¹ It also asserts that peace, development and environmental protection are interdependent and indivisible.⁴² The Preamble to the Aarhus Convention (1998) underlines the link, recognizing that “adequate protection of the environment is essential to human well-being and the enjoyment of basic human rights, including the right to life itself”. Resolution 2003/71 of the UN Commission on Human Rights similarly affirms that environmental damage can have potentially negative effects on the enjoyment of some human rights.

Development and environmental protection depend upon respect for human rights, in particular rights of information, political participation, and due process (see Article 14 (Physical and Legal Persons), Article 49 (Information and Knowledge), and Article 50 (Education, Training and Public Awareness)). In turn, full and effective exercise of human rights cannot be achieved without development and a sound environment because some of the most fundamental rights, e.g., the rights to life and health,⁴³ are jeopardised when basic needs, such as sufficient food and water,

³⁸ Proclamation of Teheran (1968). The text also recognizes that economic disparities separating developed and developing countries constitute an obstacle to effective respect for human rights and that effective implementation of human rights supposes rational social and economic development (Paragraphs 12 and 13). These statements echo Article 28 of the Universal Declaration of Human Rights (1948), which provides that everyone is entitled to a social and international order in which the rights and freedoms set forth in the Declaration can be fully realized.

³⁹ Paragraph 6 of the Declaration and Program of Action of Vienna (1993).

⁴⁰ Paragraph 8.

⁴¹ Principle 1.

⁴² Principle 25 of the Rio Declaration (1992).

⁴³ The right to life is contained in all global and regional human rights instruments, e.g., Article 3 of the Universal Declaration of Human Rights (1948) and Article 6 of the Covenant on Civil and Political Rights (1966). The right to health and well-being is expressed in, *inter alia*, Article 25 of the Universal Declaration of Human Rights (1948) and Article 12 of the Covenant on Economic, Social and Cultural Rights (1966). Paragraph 5 of the Vienna Declaration (1993) strongly underlines that all human rights are “universal, indivisible and interdependent and interrelated”.

cannot be provided.⁴⁴ Of course, as the Vienna Declaration emphasises, development facilitates the enjoyment of human rights, but lack of development cannot be invoked to justify limitations on internationally recognized human rights.⁴⁵

Finally, armed conflicts are inherently destructive of the environment and of human rights,⁴⁶ and thus hamper or even preclude development. To achieve the objective of the Draft Covenant, the Parties must recognize the indivisibility of and need to fully apply international rules for the protection of human rights, prevention and limitation of armed conflicts, protection of the environment and achievement of development.

ARTICLE 5

EQUITY AND JUSTICE

Equity and justice shall guide all decisions affecting the environment and shall oblige each generation to qualify its environmental conduct by anticipating the needs of future generations.

Article 5, closely related to the principles of Article 6 (Prevention) and Article 7 (Precaution), is an essential foundation of all international law relating to environmental protection and to the concept of sustainable development. Intra-generational equity is encompassed herein, a concept also known as environmental justice.⁴⁷ Intergenerational equity holds that each generation owes

⁴⁴ The Vienna Declaration recognizes that illicit movements of substances and toxic and hazardous wastes can constitute a grave danger to the rights of each person to life and health (see Paragraph 11). See also UNGA Resolution 45/94 (1990) on the Need to Ensure a Healthy Environment for the Well-Being of Individuals.

⁴⁵ Paragraph 10 of the Vienna Declaration.

⁴⁶ See e.g., Paragraph 29 of the Vienna Declaration.

⁴⁷ Environmental Justice has been defined as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair Treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, and local, and tribal environmental programs and policies. Meaningful Involvement means that: (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health; (2) the public’s contribution can influence the regulatory agency’s decision; (3) the concerns of all participants involved with be considered in the decision-making process; and (4) the decision-makers seek out and facilitate the involvement of those potentially affected”. U.S. Environmental Protection Agency, Toolkit for Assessing Potential Allegations of Environmental Injustice, (Working Draft, Sept. 8, 2003), available at <http://www.epa.gov/compliance/recent/ej.html>.

a duty to future ones to avoid impairing their abilities to fulfil their basic needs.⁴⁸ Although it is difficult to predict with precision the aspirations of future generations, the basic human needs and values expressed in the two 1966 United Nations Covenants on Human Rights must be taken as the minimum requirements.⁴⁹ Clearly, these are predicated on an adequate environment. This entails the conservation of all natural resources and the sustainable use of those which are harvested, both within national jurisdictions and in areas beyond. Article 5 should be read in conjunction with Article 10 (Right to Development) and Article 11 (Eradication of Poverty), which express principles of intra-generational equity.

Part I of the World Charter for Nature provides some guidance on the meaning of inter-generational equity: not compromising genetic viability on Earth; maintaining populations of all life forms at least at levels sufficient for their survival; applying conservation principles to all areas on Earth, with special protection for unique and representative areas and endangered species; utilizing natural resources (when used) so as to ensure optimal sustainable productivity; and safeguarding nature from degradation due to military activities.⁵⁰

Numerous international instruments affirm this basic principle.⁵¹ Indeed, the Whaling Convention (1946) reveals that the concept has early antecedents.⁵² Some national constitutions⁵³ also

⁴⁸ See, *inter alia*, Goa Guidelines (1988), which identify as the principle's central premise that "the right of each generation to benefit from and develop this natural and cultural heritage is inseparably coupled with the obligation to use this heritage in such a manner that it can be passed on to future generations in no worse condition than it was received from past generations".

⁴⁹ Note too that the Vienna Declaration (1993) provides that the right to development should be realized in a manner that equitably satisfies the needs of present and future generations (paragraph 11). The Goa Guidelines (1988), suggest specific measures to ensure such intergenerational rights and obligations, including: (a) representation by States of the interests of future generations; (b) designation of ombudsmen or commissioners for protecting the interests of future generations; (c) conservation assessments giving particular attention to long-term consequences.

⁵⁰ See Principles 1-6.

⁵¹ See e.g., the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora; 1976 Convention for the Mediterranean Sea; 1976 Convention on the Conservation of Nature in the South Pacific; 1977 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques; 1978 Kuwait Regional Convention; 1979 Convention on the Conservation of European Wildlife and Natural Habitats; 1979 Convention on the Conservation of Migratory Species of Wild Animals; 1983 Convention for the Wider Caribbean Region; 1985 ASEAN Agreement on the Conservation of Nature and Natural Resources; 1992 Convention on Biological Diversity; 1992 UN Framework Convention on Climate Change, 1994 UN Convention to Combat Desertification; and 1997 United Nations Convention on the Law of the Non-Navigable Uses of International Watercourses. The same concept appears in United Nations General Assembly resolutions. See e.g., Protection of global climate for present and future generations of mankind, G.A. Res. 43/53, Dec. 6, 1988, UN Doc. A/Res/43/53 of Jan. 27, 1989.

⁵² See Preamble.

⁵³ See e.g., the Constitutions of Brazil (Article 23), India (Part IV, Article 48-A and Part IVA, Article

contain direct references to intergenerational equity or it is implied from provisions guaranteeing a right to a safe and healthy environment.⁵⁴

ARTICLE 6

PREVENTION

Prevention of environmental harm is a duty and shall have priority over remedial measures. The costs of pollution prevention, control and reduction measures are to be borne by the originator.

Article 6 expresses a principle fundamental to environmental protection, the preventive approach, which is applicable to all actors wherever the consequences of their actions may be felt. It restates an ecological fact that preventive efforts are always preferable to remedial actions that may be attempted after harm has occurred.⁵⁵ Not only is harm irreversible in many cases, but *ex post facto* action is usually more expensive and less effective than preventive measures. Experience reveals that preventive measures are most efficient when aimed at the sources of environmental harm, particularly those causing pollution, rather than at establishing quality standards for the affected environmental milieu. This is especially true where there are diffuse and cumulative sources.

The preventive approach requires each Party to exercise “due diligence,” *i.e.*, to act reasonably and in good faith and to regulate public and private activities subject to its jurisdiction or control that are potentially harmful to any part of the environment.⁵⁶ The principle does not include a minimum threshold of harm, because the obligation is one of conduct (due diligence), not of result. Thus, the principle does not impose an absolute duty to prevent all harm, making the State a guarantor, but rather an obligation on each State to minimize detrimental consequences of permissible activities through regulation.⁵⁷ Of course, in certain circumstances, the principle of prevention will require the State to

51A), Islamic Republic of Iran (Chapter IV, Article 50), Namibia (Chapter II, Article 95), Papua New Guinea (Chapter IV).

⁵⁴ See *Minors Oposa case* (1993), where the petitioners challenging the grant of timber licenses in the Philippines were accorded *locus standi* to proceed with their claim on behalf of future generations.

⁵⁵ See e.g., EC Environmental Action Programme (1973). Note that this principle does not negate obligations to take remedial action once harm has occurred. See Article 27 of the UN Watercourses Convention (1997) and Covenant Articles 23 and 33. See the requirement of Article 4(2)b of the Basel Convention (1989) that each Party shall ensure adequate disposal facilities exist within the State for environmentally sound management of hazardous and other wastes; Principle 12(a) of the World Charter for Nature (1982); Strategic Element 2(i) of the European Charter on Environment and Health (1989); and Paragraph 3(f) of UNGA Resolution 42/186 (1987) on Environment Perspective to the Year 2000 and Beyond.

⁵⁶ In the *Alabama case* (1872), due diligence was defined to mean “a diligence proportioned to the magnitude of the subject and to the dignity and strength of the power which is exercising it”.

⁵⁷ See Article 6 of the Danube Convention (1994) which indicates that preventive measures should take into account long-term needs. States Parties shall “[p]revent the pollution of ground-water resources,

prohibit activities that could cause serious harm to the environment.⁵⁸ While this principle has been reiterated in many international instruments,⁵⁹ the more common application has been to create minimum standards⁶⁰ or require employment of the “best available technology”.⁶¹ In determining whether a particular technology is the best available, several factors are to be taken into account, including the nature and volume of the pollution and the economic feasibility of the technology in question.

In the transboundary context, in its April 20, 2010, judgment in the *Pulp Mills Case*, the ICJ starts with the principle of prevention, which it explicitly calls a customary rule, having its origins in the due diligence that is required of a State in its territory. It is

“every State’s obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States” (*Corfu Channel (United Kingdom v. Albania)*, Merits, Judgment, I.C.J. Reports 1949, p. 22). A State is thus obliged to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State. This Court has established that this obligation “is now part of the corpus of international law relating to the environment” (*Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion*, I.C.J. Reports 1996 (I), p. 242, Para. 29).

especially those in a long-term perspective reserved for drinking water supply, in particular caused by nitrates, plant protection agents and pesticides as well as other hazardous substances”. Article 6(b).

⁵⁸ The duty to prohibit certain hazardous activities is clear, but the threshold of likely harm required to trigger such an obligation is not. Some legal instruments or decisions refer to “serious consequence” (*Trail Smelter*), others to “significant”, “appreciable” or “measurable” harm. In general, prohibited activities are specifically designated by international or national law. *Cf.* Article 3(1)(d) of the ECE Transboundary Watercourses Convention (1992), which requires as part of the duty of prevention that Parties impose stricter requirements, “even leading to prohibition in individual cases, where the quality of the receiving water or the ecosystem so requires”. See also Article 58 of the Draft Covenant.

⁵⁹ E.g., marine environment (Art. 1, 1972 London Convention on the Prevention of Marine Pollution Dumping of Wastes and Other Matter; Art. 1, 1974 Paris Convention for the Prevention of Marine Pollution from Land-Based Sources, replaced by the 1992 OSPAR Convention; Arts. 192, 194, 195, 196, 204, 207-212 UNCLOS; regional seas agreements); rivers (Arts. 2 and 3 of the Helsinki Convention on Transboundary Watercourses; Art. 21, 1997 UN Convention on Non-Navigational Uses of International Watercourses; Art. 4, 1994 Rotterdam Convention on the Protection of the Rhine); atmospheric pollution (Art. 2, 1979 Convention on Long-Range Transboundary Air Pollution); ozone layer (Art. 2.2.b of the 1985 Vienna Convention for the Protection of the Ozone Layer and 1987 Montreal Protocol); wastes (Art. 4.2.c of the 1989 Basel Convention on Transboundary Movements; Art. 6 of the 2000 Basel Protocol on Liability; Art. 4.3.e of the 1991 Bamako Convention); biodiversity (Art. 4 of the 1985 ASEAN Agreement on Conservation of Nature and Natural Resources; Preamble and Art. 14 of the 1992 Convention on Biological Diversity).

⁶⁰ See e.g., Annexes 1-5 of the MARPOL Convention (1973), Articles 210-211 of UNCLOS (1982); Articles IV, VI and VII and Annexes I-III of the London Convention (1972).

⁶¹ See e.g., Article 2(3)(a)(i) of North-East Atlantic Convention (1992); Article 6 of the LRTAP Convention (1979); Article 194(1) of UNCLOS (1982); Annex 1 of the Danube Convention (1994). See also Principle 11 of the World Charter for Nature (1982).

In the same case, the Court observed that the obligation to prevent pollution and protect and preserve the aquatic environment of the river in question, and the exercise of due diligence implied in it, entail a careful consideration of the technology to be used by the industrial plant to be established. The Court seemed to concur that the best available technology should be utilized. Several international texts define best available technology or related terms. The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 17 March 1992) defines “best available technology” in Annex I as: “the latest stage of development of processes, facilities or methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste”.

The Convention for the Protection of the Marine Environment in the 1992 North-East Atlantic defines the similar term “best available techniques” as “the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste.

The same instrument defines the term “best environmental practice” as the application of the most appropriate combination of environmental control measures and strategies ranging from education and information to establishing a system of licensing. Other treaties use related terms. The Convention on the Protection of the Elbe calls on the contracting Parties to develop work programmes providing proposals for the application of state of the art techniques for the reduction of emissions and reduction of pollution (Art. 1(3)). UNCLOS requires States to take measures to prevent, reduce and control marine pollution using for this purpose the best practicable means at their disposal.⁶²

To aid States in determining what is the best available technology, techniques or practices, some international agreements specify the criteria to which special consideration shall be given. These include: comparable processes, technological advances and changes, economic feasibility, time limitations, the nature and volume of the discharges and effluents concerned, low and non-waste technology. The Stockholm Convention on Persistent Organic Pollutants⁶³ (POPs), in its Annex C Part V on unintentional production of POPs, provides general guidance on best available techniques and best environmental practices. It describes general measures to prevent the formation and release of its listed chemicals, such as using low-waste technology and less hazardous substances, promoting the recovery and recycling of waste, improving waste management programmes, adopting preventive maintenance programmes and avoiding the use of certain substances.

⁶² See also the other regional seas agreements, e.g. Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, Art. 4 (1985); Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Art. 4 (1983); Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Art. 5 (1986).

⁶³ May 22, 2001.

Public authorities may require activities within their jurisdiction to apply the best available technology or techniques and verify its application through authorization, permits, licenses and monitoring, or through other administrative or judicial enforcement. Emission limits and other product or process standards and similar techniques can similarly be seen as applications of the principle of prevention. The preventive approach can also involve the elaboration and adoption of strategies and policies.

Environmental impact assessments (see Article 42 (Environmental Impact Assessment)) are widely used by States to identify potential threats to the environment so that preventive action can be taken.⁶⁴ The principle of prevention also is given effect through licensing and other regulation of human activities, including the imposition of penalties in the event of breach of the duty to prevent harm (see Article 59 (Offenses)).⁶⁵

The duty to prevent harm at the transboundary level has deep roots in customary international law. It is inherent in the *Trail Smelter* arbitral decision and finds related support in the statement of the International Court of Justice in the *Corfu Channel* case that every State has a duty “not to allow knowingly its territory to be used for acts contrary to the rights of other States”⁶⁶ In the 1997 ICJ judgement in the *Gabcikovo-Nagymaros Case* (Hungary v. Slovakia), the Court stated that it was “mindful that, in the field of environmental protection, vigilance and prevention are required on account of the often irreversible character of damage to the environment and of the limitations inherent in the very mechanism of reparation of this kind of damage” (Para. 140).

The principle is restated in numerous international instruments (see Article 13 (States))⁶⁷ and is the basis of most national environmental legislation (see Article 43(2) (Environmental Standards and Controls). It finds expression in nearly every provision of the Draft Covenant.

The second sentence of Article 6 is a restatement of the “polluter pays” principle, but uses “originator” to make it clear that it encompasses potential as well as actual environmental harm. Similar provisions can be found in several global and regional texts.⁶⁸ On the global level, the

⁶⁴ See also Article 2(1) of the Espoo Convention (1991); and generally see the National Environmental Policy Act (USA).

⁶⁵ See generally, Toxic Substances Control Act (USA); Law on the Environment (Egypt); General Law on the Environment (Honduras), and Decree 179 of 2 February 1993 (Cuba).

⁶⁶ See also *Lac Lanoux* arbitration.

⁶⁷ Principle 21 of Stockholm Declaration (1972); Principle 2 of Rio Declaration (1992); Article 194 of UNCLOS (1982); Article 3 of the Convention on Biological Diversity (1992). Even at Stockholm, several States declared that Principle 21 accorded with existing international law. UNGA Resolution 2996 (XXVII) (1972) asserts that Principle 21 lays down “the basic rules governing the matter”.

⁶⁸ See e.g., Principle 16 of the Rio Declaration (1992); Article 130(r) of the EC Treaty (1957), as amended, OECD Recommendation on Guiding Principles Concerning International Economic Aspects of Environmental Policies (1972), OECD Council Recommendation on the Implementation of the Polluter-Pays Principle (1974), Article 2(2)(b) of the North-East Atlantic Convention (1992), and the Preamble to the ECE Industrial Accidents Convention (1992).

1990 International Convention on Oil Pollution Preparedness, Response and Cooperation states in its preamble that the polluter pays principle is “a general principle of international environmental law”. More recent examples of reference to it are found in the 1996 Amendments to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources, and the 2001 Stockholm Convention on Persistent Organic Pollutants.

The content of the polluter pays principle can be seen in the 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic. According to Art. 2(2)(b), “[t]he contracting Parties shall apply:... the polluter pays principle, by virtue of which the costs of pollution prevention, control and reduction measures are to be borne by the polluter”. This can be interpreted in different ways depending upon the extent of prevention and control and whether compensation for damage is included in the definition of reduction. Further, the very concept of the “polluter” can vary, from the producer of merchandise to the consumer who uses it and who pays the higher price resulting from anti-pollution production measures. International practice thus far, mainly that of the EC, seems to aim at eliminating public subsidies for pollution abatement by companies.

If fully implemented, the polluter pays principle should eliminate many non-tariff barriers to trade. The provision creates a long-term objective, because it is unrealistic at present to expect that all “external” costs associated with preventing, controlling and reducing harm to the environment can be borne by the originator. There are significant social choices to be made and regardless of levels of economic development, most Parties are not in a position immediately to implement this fully. More conceptual work is needed on how to quantify these costs and on the best means to achieve this result. Nonetheless, it is clear that direct subsidies should be phased out and *de facto* subsidies, such as rules that are not fully enforced, should be eliminated. This provision also relates to cases where harm has taken place, where domestic and international rules of responsibility and liability are triggered.⁶⁹

ARTICLE 7

PRECAUTION

Precaution is a duty. Accordingly, even in the absence of scientific certainty, appropriate action shall be taken to anticipate, prevent and monitor the risks of serious or irreversible environmental harm.

Article 7, affirming the precautionary approach, derives from the principle of prevention (Article 6 (Prevention)) but is designed to apply where there is some evidence that an activity might cause harm to the environment, but full scientific certainty is lacking. The primary distinction between the two provisions is the standard of proof required before action is to be undertaken to avoid environmental harm. In international law, the traditional obligation to prevent transboundary harm is triggered after “convincing evidence” exists that such harm will occur.⁷⁰ There is, as such,

⁶⁹ In cases of transboundary harm, see *Trail Smelter* case.

⁷⁰ E.g., *Trail Smelter* Arbitration.

a focus on foreseeability or likelihood of harm based on knowledge or ability to know. In contrast, the precautionary approach calls for action even when there is scientific uncertainty about the precise degree of risk or the magnitude of potentially significant or irreversible environmental harm. It is based on the assumption that scientific knowledge about the environment is still developing and new activities or substances may be found to be harmful only after irreversible or catastrophic damage occurs. Thus, to avoid environmental harm it is better to err on the side of caution. As envisaged by the Bergen Ministerial Declaration on Sustainable Development (16 May 1990), “Environmental measures must anticipate, prevent and attack the causes of environmental degradation”.⁷¹

By focusing on the risk of harm, the precautionary approach seeks to anticipate harm that may be serious or irremediable. Once a risk is identified, action will vary according to the magnitude of the risk (probability of the event coupled with the severity of the consequences) and may require temporary or permanent restrictions. Thus, dumping of wastes at sea has, in some circumstances, been considered particularly hazardous, to the point that the burden of proof has shifted entirely onto the proponent of the activity to demonstrate that harm will not occur.⁷² The Cartagena Biosafety Protocol (2000) requires that risk be assessed prior to the first intentional transboundary movement of a living modified organism (LMO) for intentional introduction into the environment of the importing country. The treaty then leaves it to the importing State to decide whether or not to accept the risk. Risk assessment and informed consent thus form the heart of the Protocol’s regulatory process.

International instruments widely refer to and have developed the precautionary principle.⁷³ In addition, the precautionary principle is an unexpressed rationale underlying other instruments.⁷⁴

⁷¹ Paragraph 7 (15 May 1990).

⁷² See e.g., London Convention (1972); IMO London Dumping Consultative Meeting Resolution on Dumping of Radioactive Wastes on suspending disposal of low-level radioactive waste at sea, annex 4 (1985), (by agreement of the Contracting Parties, this has since been superseded by a moratorium agreed on 12 November 1993); Oslo Commission’s Prior Justification Procedure for dumping in the North Sea (see OSCOM Decision 89/1 on the Reduction and Cessation of Dumping Industrial Wastes at Sea (1989)).

⁷³ See e.g., the Bamako Convention on the Ban of the Import of Hazardous Wastes into Africa and on the Control of their Transboundary Movements within Africa, Art. 4(3)(f) (1991); Helsinki Convention on the Protection of the Marine Environment of the Baltic Sea, Art. 3(2) (1992); Framework Convention on Climate Change, Art. 4(1)(f); Convention on Biological Diversity, Preamble (1992); Amendments to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources, Preamble (1996); Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone, (1999); the Cartagena Protocol on Biosafety, (2000); Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean (2000); Convention on the Conservation and Management of Fishery Resources in the South-East Atlantic Ocean (2001); the Stockholm Convention on Persistent Organic Pollutants (2001); and the European Energy Charter Treaty, Art. 19(1) (1994); Agreement on the Conservation of Albatrosses and Petrels, Art. II(3) (2001) and the Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific (2002); ASEAN Agreement on Transboundary Haze Pollution (2002).

⁷⁴ E.g., Vienna Convention on the Ozone Layer (1985) and its Montreal Protocol (1987).

Various regulatory techniques are encompassed by it: e.g., environmental quality standards, regulation or prohibition of hazardous substances, use of the best available technology, integrated environmental regulation, and comprehensive EIAs. It is also clear that the precautionary principle is greatly strengthened if there is full public participation in decisions that affect the environment, so that all known and possible risks can be evaluated before action (see Article 14(4) (Physical and Legal Persons)).

Article 6 of the Straddling Stocks Agreement (1995) details some of the means that may be required. States Parties “shall be more cautious when information is uncertain, unreliable or inadequate. The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures”. In operational terms, they shall obtain and share the best scientific information and improve techniques for dealing with risk and uncertainty; apply guidelines; take into account uncertainties, *inter alia*, on size and productivity of stocks; develop data collection and research programmes to assess impact of fishing; and enhance monitoring. For new or exploratory fisheries, they must adopt cautious conservation and management measures. The 2000 Cartagena Biosafety Protocol to the Convention on Biological Diversity also requires precaution. The principle is contained in Art. 1 on the objectives of the Protocol which refers explicitly to Rio Principle 15. Articles 10 and 11 contain the key provisions on the principle. Art. 10(6) says that “lack of scientific certainty due to insufficient relevant information and knowledge regarding the extent of the potential adverse effects of an LMO shall not prevent the Party from taking a decision on the LMO in order to avoid or minimize such potential adverse effects”. Art. 11 uses similar language. Thus a country may reject an import even in the absence of scientific certainty that it will potentially cause harm. These provisions are broader than Rio Principle 15 because they lack reference to “serious or irreversible damage” or to cost-effectiveness.

ARTICLE 8

PROPORTIONALITY

Among reasonable alternatives for action, preference shall be given to the alternative least harmful to the environment.

Article 8 reflects a principle that commonly applies when fundamental values of society are restricted or rights infringed. It calls for utilizing the least burdensome or harmful alternative. In some instances, the test applied is whether the proposed action “necessary in a democratic society,” a test that encompasses the notion of proportionality. In respect to the environment, this principle has particular application in respect to environmental impact assessment procedures, which normally now require consideration be given to mitigation and alternative actions, including no action. The prior assessment procedures of international financial institutions require identification of ways by which proposed projects can be improved to prevent, minimize or compensate for adverse environmental impacts.⁷⁵

⁷⁵ Art. 3(2) to Annex I of the Madrid Protocol on Environmental Protection of the Antarctic (1991) requires that a Comprehensive Environmental Evaluation of proposed alternatives to the activity, including the alternative of not proceeding, and the consequences of those alternatives.

ARTICLE 9

RESILIENCE

The capacity of natural systems and human communities to withstand and recover from environmental disturbances and stresses is limited, and shall be sustained or restored as fully as possible.

Nonlinear (accelerating or abrupt) changes have been previously identified by a number of individual studies of ecosystems. The Millennium Assessment concluded that ecosystem changes are increasing the likelihood of nonlinear changes in ecosystems. Examples of such changes include disease emergence, abrupt alterations in water quality, the creation of “dead zones” in coastal waters, the collapse of fisheries, and shifts in regional climate. Because of the danger of irreversible, sudden changes, the resilience of natural systems and the human communities that depend upon them must be a priority.⁷⁶

ARTICLE 10

RIGHT TO DEVELOPMENT

The right to development is universal and inalienable and entails the obligation to meet environmental, as well as social and economic needs of humanity in a sustainable and equitable manner.

Article 10 sets forth the fundamental principle that the right to development necessitates environmental protection and global equity, a theme affirmed at UNCED and reaffirmed at the WSSD. It is generally recognized that long-term development prospects are severely and increasingly limited when the environment becomes degraded; hence the concept of sustainable development, implying a fusion of these two imperatives.⁷⁷

The direct precedents for Article 10 are found in Principle 3 of the Rio Declaration, the 1986 Declaration on the Right to Development and recent global treaties which integrate development and environmental conservation.⁷⁸ In the Draft Covenant, this provision is directly related to Article 3 (Common Concern of Humanity), Article 4 (Interdependent Values) and Article 5 (Equity and Justice), and is given operational details *inter alia* in Article 16 (Integrated Policies).

⁷⁶ Millennium Ecosystem Assessment, 2005. *Ecosystems and Human Well-being: Synthesis* (World Resources Institute, 2005).

⁷⁷ The roots of this notion can be traced to the Stockholm Declaration (1972) and to the WCED Brundtland Report (1987).

⁷⁸ See e.g., Climate Change Convention (1992) and Convention on Biological Diversity (1992). See also Principle 2 of the Rio Declaration.

The reference to “humanity” in Article 10 is based on recognition that human beings are the central subjects of development.⁷⁹ As such, this Fundamental Principle applies not only in relation to each Parties’ own citizens, but in a way that takes account of the needs of all persons. In this sense, it creates a notion of “intra-generational” equity. The implementation of this right in a “sustainable and equitable manner” connotes a balance, so that “sustainable” brings environmental concepts into the development process, while “equitable” inserts developmental matters into international environmental protection efforts. Equity will be achieved through implementation of the international economic order foreseen, *inter alia*, in Article 34(1) (Trade and Environment) and through transfers of resources to developing countries to build their capacities. Both are essential to effecting global solutions to modern environmental and economic challenges.

ARTICLE 11

ERADICATION OF POVERTY

The eradication of poverty, which necessitates a global partnership, is indispensable for sustainable development. Enhancing the quality of life for all humanity and reducing disparities in standards of living are essential to a just society.

Article 11 expresses a truism, that a certain level of economic well-being is a precondition of sustainable development. Conservation and sustainable use are impossible where dire poverty precludes fulfilment of basic needs, because overriding priority is given to the elimination of poverty and because, even if the will to conserve exists, capacity to do so is lacking.⁸⁰ This principle thus affirms the fundamental link between environmental protection and economic development.⁸¹ It also emphasises that minimum economic levels cannot be achieved globally without efforts by the entire international community.

Several international instruments recognize this overwhelming problem and the need for global cooperation to address it, while also acknowledging that each country has the primary responsibility for its own sustainable development and poverty eradication.⁸² As noted in Agenda 21,

⁷⁹ See Vienna Declaration (1993) and the UN Declaration on the Right to Development (1986), which states that “the right to development is 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”. Note too that the mandate of the UN High Commissioner for Human Rights includes this subject.

⁸⁰ See the Preamble to the Desertification Convention where the Parties express that they are “Conscious that sustainable economic growth, social development and poverty eradication are priorities of affected developing countries”.

⁸¹ See Principles 8-14 of the Stockholm Declaration (1972) and Principle 5 of the Rio Declaration (1992).

⁸² See G.A. Res. 57/266 on Implementation of the First United Nations Decade for the Eradication of Poverty (1997-2006), Para. 1.

the eradication of poverty is at the same time a country or regionally specific phenomenon as well as a shared responsibility of all States.⁸³ Hence the idea of global partnership, which emphasises international solidarity and unity of interest.⁸⁴ In 1995, during a World Summit for Social Development, 117 heads of State agreed to an integrated approach to poverty eradication based on the concept of partnership, within societies as well as between developed and developing countries. The United Nations Millennium Declaration embraced a commitment to eradicate extreme poverty and to halve, by 2015 the proportion of the world's people whose income is less than one dollar a day and the proportion of people who suffer from hunger. The General Assembly declared 1997-2006 the first United Nations Decade for the Eradication of Poverty. The 2002 World Summit on Sustainable Development extended the concept of partnership to encompass non-State actors as well as States. The Johannesburg Declaration on Sustainable Development recognized that sustainable development requires a long-term perspective and "stable partnerships with all major groups" (Para. 23). The Johannesburg Plan of Implementation also calls for enhanced partnerships between governmental and non-governmental actors, including all major groups.

The global partnership envisaged involves working towards an equitable international economic order (Article 34(1) (Trade and Environment)) and appropriate development assistance to developing countries (see Article 52(2) (International Financial Resources)). Other elements of this partnership are technical cooperation (Article 47 (Development and Transfer of Technology)), information exchange (Article 49 (Information and Knowledge)) and appropriate institution building and strengthening.⁸⁵

The specific measures required of Parties to implement this principle are found in Article 31 (Action to Eradicate Poverty).

ARTICLE 12

COMMON BUT DIFFERENTIATED RESPONSIBILITIES

States shall meet their duties in accordance with their common but differentiated responsibilities and respective capabilities.

The concept or principle of common but differentiated responsibilities comprises two elements: common responsibilities and differentiated responsibilities. The first stems from the interdependent nature of the biosphere and the consequent necessary recognition of a global partnership to maintain it. Common responsibilities such as the duty to cooperate and to participate actively in the development of international law and policy concerning sustainable development thus stem from an understanding of the environment as the common concern of humankind.

⁸³ Paragraph 3.1.

⁸⁴ See Preamble of the Draft Covenant and Article 1(1) of the UN Charter.

⁸⁵ See Paragraph 3.10 of Agenda 21 (1992).

Differentiated responsibilities stem from two factors: the different contributions States have made to global environmental degradation, on the one hand,⁸⁶ and the technologies and financial resources they command, on the other hand.⁸⁷ The operationalization of differentiated responsibilities is most often seen in treaty provisions that impose on developed countries the costs to developing countries of implementing the relevant obligations.⁸⁸

The recognition of common but differentiated responsibilities appeared first in the Rio Declaration, Principle 7, but has antecedents in such treaty provisions as those that call for “equitable control” of problems such as emissions of substances that deplete the ozone layer.⁸⁹ The concept of common but differentiated responsibility has been incorporated in all global environmental conventions adopted since the end of the 1980s. In addition, the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Art.10(2)), the 1987 Montreal Protocol on the Protection of the Ozone Layer as amended in 1992, the 1992 Convention on Biological Diversity (Arts. 16, 20, and 21), and the 1992 UN Framework Convention on Climate Change, all provide for transfer of technology or for financial assistance. The 1994 Convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa contains the most detailed provisions on the obligations of developed country Parties. They should mobilize substantial financial resources, including new and additional funding from the Global Environmental Facility in order to support the implementation of programmes to combat desertification and mitigate the effects of drought (Arts. 21, 22).

PART III. GENERAL OBLIGATIONS

Part III contains obligations that apply irrespective of environmental sectors or components and of different types of activities. In conformity with the title and the spirit of the Draft Covenant, it includes provisions on both environment and development. This Part articulates the rights and duties of the Parties, all States (in cases where the provisions are declaratory of customary international law) and individuals. It sets forth a general framework from which the specific obligations of the Draft Covenant are derived and should be interpreted.

ARTICLE 13

STATES

- 1. States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to utilize their resources to meet their environmental and developmental needs, and the duty to ensure**

⁸⁶ See Beijing Ministerial Declaration on Environment and Development (1991).

⁸⁷ See Convention on Biological Diversity, Art. 6; Desertification Convention, Arts. 4-6.

⁸⁸ See Montreal Protocol, Article 5(1).

⁸⁹ See Montreal Protocol (1987), Preamble.

that activities within their jurisdiction or control respect the environment of other States or of areas beyond the limits of national jurisdiction.

- 2. States have the right and the duty, in accordance with the Charter of the United Nations and principles of international law, to take lawful action to protect the environment under their jurisdiction from significant harm caused by activities outside their national jurisdiction. If such harm occurs, they are entitled to appropriate and effective remedies.**
- 3. States shall take all appropriate measures to avoid wasteful use of natural resources and ensure the sustainable use of renewable resources.**

Article 13 enunciates fundamental principles of customary international law and details general obligations applicable to the Parties to the Draft Covenant derived from numerous international instruments. They must be applied in the implementation of the more specific provisions of the Draft Covenant.

Paragraph 1 applies to the environment within and beyond national jurisdiction. The citation to the UN Charter (1945) and principles of international law refers to two fundamental items. First, each State's sovereign right to utilize its resources⁹⁰ is to be given effect in the broad framework of international law,⁹¹ which includes obligations of good-neighbourliness,⁹² cooperation, respect for human rights, peaceful settlement of disputes, and commitments to raise living standards, as well as other principles which now form the body of international environmental law. Second, international law must be seen as an evolutionary process, so that earlier instruments which focused exclusively on matters of economic development should be read in conjunction with later ones imposing constraints on resource exploitation.⁹³ The development of international environmental law is indicative of the willingness of States to support such constraints with a view to sustainable

⁹⁰ This is affirmed, e.g., in UN General Assembly Resolution 1803 on Permanent Sovereignty Over Natural Resources.

⁹¹ See e.g., UN General Assembly Resolution 3171 (28th session). That the basic elements of this provision form part of modern international law is evident from the UN Charter (1945) (see especially Article 103) and the Declaration of Principles of International Law (1970).

⁹² This principle was given expression to in the *Island of Palmas* and *Trail Smelter* cases.

⁹³ As stated by the ICJ in the *Gabcikovo-Nagymaros Case*, "Throughout the ages, mankind has, for economic and other reasons, constantly interfered with nature. In the past, this was often done without consideration of the effects upon the environment. Owing to new scientific insights and to a growing awareness of the risks for mankind – for present and future generations – of pursuit of such interventions at an unconsidered and unabated pace, new norms and standards have been developed, set forth in a great number of instruments during the last two decades. Such new norms have to be taken into consideration, and such new standards given proper weight, not only when States contemplate new activities but also when continuing with activities begun in the past. This need to reconcile economic development with protection of the environment is aptly expressed in the concept of sustainable development" (Para. 140).

development. Environmental law, both national and international, also falls within this broader legal structure. All recent developments in international environmental law recognize that the global environment is an integrated whole.⁹⁴ The term “jurisdiction” is broader than “territory”, and would include, for example, exclusive economic zones.

Paragraph 1 restates the all-important Principle 21 of the Stockholm Declaration⁹⁵ and Principle 2 of the Rio Declaration, and is declaratory of customary international law.⁹⁶ Similar language has been included in Article 194(2) of UNCLOS (1982) and in Article 3 of the Convention on Biological Diversity, as well as in other instruments.⁹⁷ Article 7 of the Watercourses Convention similarly provides that watercourse states shall take all appropriate measures to prevent the causing of significant harm to other watercourse states and that where harm is caused, the State causing the harm shall take all appropriate measures to eliminate or mitigate such harm and discuss the question of compensation. The provision expresses the foundation of much of contemporary international environmental law. By referring to “activities within their jurisdiction or control”, the provision covers vessels flying national flags, activities within exclusive economic zones, and activities of each State’s nationals.

Paragraph 2 expresses the right and duty of each State under international law to take lawful action within its jurisdiction to avoid transboundary environmental harm. It flows from and applies

⁹⁴ The obligation in this provision to protect and preserve is based on the global environment being a “common concern of humanity” (Article 3 of the Draft Covenant), and thus not a matter solely within the domestic jurisdiction of States.

⁹⁵ See also UN General Assembly Resolutions 2995 and 2996 XXVII (1972) affirming that Principles 21 and 22 lay down the basic rules on this matter.

⁹⁶ Cf. *Trail Smelter* case. Widespread acceptance of the norm led the International Court of Justice to recognize in an advisory opinion that “[t]he existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment”. *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, ICJ Reports 1996, pp. 241-242, Para. 29. This statement was repeated in the Judgement concerning the *Gabcikovo-Nagymaros Project*, in which the Court also “recall[ed] that it has recently had occasion to stress ... the great significance that it attaches to respect for the environment, not only for States but also for the whole of mankind”. 25 September 1997, Para. 53. See Covenant Articles 37 and 39.

⁹⁷ See e.g., the Preamble to the LRTAP Agreement (1979) and Article 20 of the ASEAN Agreement (1985). Article 2(2) of the Danube Convention (1994) similarly requires States Parties to take all legal and technical measures to at least maintain and improve the current environmental and water quality conditions of the Danube River and the waters in its catchment area and prevent and reduce, as far as possible, adverse impacts and changes occurring or likely to be caused. Article 3(2) subjects to the Convention activities and ongoing measures as far as they cause or are likely to cause transboundary impacts. Article 5 specifies the measures necessary to prevent, control and reduce transboundary impact. Transboundary impact is defined Article 1(c) as harm affecting life and property, safety of facilities and the aquatic ecosystems.

the preventive and precautionary approaches (Article 6 and Article 7). It generalizes rules developed respecting the marine environment where the coastal State is adversely affected.⁹⁸ The right expressed in Paragraph 2 extends to measures to ensure the conservation of renewable resources. Article 23 of the Straddling Stock Agreement, for example, provides that a port State has the right and the duty to take measures, in accordance with international law, to promote the effectiveness of sub-regional, regional and global conservation and management measures. It may inspect documents, fishing gear and catch on board vessels in ports as well as prohibit landings and trans-shipments when the particular catch undermines the effectiveness of the measures (Para. 1-3). This right of protection must be exercised in conformity with the existing framework of general international law, in particular principles embodied in the UN Charter. It does not entitle the affected State to interfere unreasonably with the sovereignty of other States. The protection contemplated by this provision is to be proportional to the risk of harm and in most cases will involve implementing Article 18 (Emergencies) of the Draft Covenant. The right to appropriate remedies alludes to Part IX of the Draft Covenant and includes the notion of “effective access” (see Article 14 (Physical and Legal Persons)).

Paragraph 3 flows from Paragraph 1 but particularizes natural resources. Both elements, namely the conservation of all resources and the sustainable use of renewable ones, are drawn from general international environmental law.⁹⁹ The paragraph should also be read in conjunction with Article 32 (Consumption and Production Patterns) of the Draft Covenant.

ARTICLE 14

PHYSICAL AND LEGAL PERSONS

- 1. Parties undertake to achieve progressively the full realization of the right of all persons to live in an ecologically sound environment adequate for their development, health, well-being and dignity. They shall devote immediate and special attention to the satisfaction of basic human needs.**

⁹⁸ See e.g., Intervention Convention (1969) (expanded to cover forms of pollution other than oil by a 1973 Protocol), Article 221 and 234 of UNCLOS (1982), and Article 9 of the Salvage Convention (1989).

⁹⁹ See e.g., UNCLOS (1982), Convention on Biological Diversity (1992), LRTAP Convention (1979), International Tropical Timber Agreement (2006) (calling for sustainable utilization and conservation of timber producing forests); Straddling Stocks Agreement, Article 5 (States shall adopt measures to ensure long-term sustainability of straddling fish stocks and highly migratory fish stocks and promote the objective of their optimum utilization. Measures should be designed to maintain or restore stocks at levels capable of producing the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the requirements of developing states, taking into account fishing patterns, interdependence of stocks, and any generally recommended international minimum standards, whether sub-regional, regional or global); Danube Convention, Article 2(5) (1994) (States Parties should cooperate to achieve sustainable water management).

2. **Parties shall ensure that all physical and legal persons have a duty to protect and conserve the environment.**
3. **Parties shall ensure that all persons, without being required to state an interest, have the right to require environmental information from public authorities, and to seek, receive, and disseminate information with regard to the environment, subject only to such restrictions as may be provided by law and are necessary for respect for the rights of others, for the protection of national security or for the protection of the environment.**
4. **Parties shall ensure that all persons have the right to participate effectively during decision-making processes at the local, national and international levels regarding activities, measures, plans, programmes and policies that may have a significant effect on the environment.**
5. **Parties shall ensure that all persons have the right of effective access to administrative and judicial procedures, including for redress and remedies, to challenge acts or omissions by private persons or public authorities, which contravene national or international environmental law.**
6. **Parties shall develop or improve mechanisms to facilitate the involvement of indigenous peoples, local communities, and vulnerable or marginalized persons in environmental decision-making at all levels and shall take measures to enable them to pursue sustainable traditional practices.**

Article 14 sets out a series of specific human rights and duties relevant to the objective of the Draft Covenant. Parties shall provide for these. As indicated in Paragraph 5, this Article complements Article 13 (States). In part, the provision owes its origin to Principle 10 of the Rio Declaration reaffirmed at the WSSD. In addition, however, resolutions of the United Nations human rights bodies, from as early as 1988, have referred to the right to live in a sound and healthy environment.¹⁰⁰ In early 2010, UN the General Assembly explicitly affirmed the right of each person to a healthy environment.¹⁰¹

¹⁰⁰ See e.g., UN Sub-Commission on Human Rights, Res. 1988/26 (Sept. 1) and UN Commission on Human Rights Res. 1989/42 (Mar. 6). In 1990, the Commission on Human Rights adopted resolution 1990/41 entitled “Human rights and the environment” in which it underscored the link between the preservation of the environment and the promotion of human rights.

¹⁰¹ A/RES/64/157 (March 8, 2010) affirms in paragraph 4 that “a democratic and equitable international order requires, *inter alia*, the realization of the following:”

(l) The right of every person and all peoples to a healthy environment and to enhanced international cooperation that responds effectively to the needs for assistance of national efforts to adapt to climate change, particularly in developing countries, and that promotes the fulfilment of international agreements in the field of mitigation; ...

Paragraph 1 affirms everyone's right to an ecologically-sound environment and level of development.¹⁰² The Stockholm Declaration affirmed the link between two fundamental objectives of the present world: respect for human rights and protection of the environment.¹⁰³ The phrase

¹⁰² According to Stockholm Declaration (1972), Principle 1:

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.

The right to environment is explicitly guaranteed and proclaimed in human rights treaty law, including Article 24 of the African Charter of Human Rights (1981) and Article 11 of the Additional Protocol to the American Convention on Human Rights (1988). Clauses concerning the protection of the environment, either as a duty of States, the implementation of which can be claimed by individuals, at least in principle, or as an individual right, can be found in the Constitutions of more than 100 States. For example, the Constitution of India, as amended in 1976, imposes a general duty on both the State and the individual to protect and improve the environment (Articles 48A and 51A). See vast Indian case law on this subject, e.g., *Rural Litigation and Entitlement Kendra v. State of Uttar Pradesh* (1987), *M.C. Mehta v. Union of India* (1987), *Bangalore Medical Trust v. B.S. Muddappa* (1991), *M.C. Mehta v. State of Orissa* (1992), *Murali Purushothaman v. Union of India* (1993), *People United for a Better Living in Calcutta v. State of West Bengal* (1993), and *Nizam v. Jaipur Development Authority* (1994); see also *Columbian Constitutional Court case Fundepublico v. Mayor of Bugalagrande and Others* (1992) and Pakistan Supreme Court case *Ms. Shahla Zia vs. WAPDA* (1994). Practically no Constitution or constitutional modification adopted since the beginning of the 1970s ignores this issue: see e.g., Political Constitution of Chile of 1980, Section 19 of the Constitution of Ecuador of 1984, Article 16 of the 1986 Constitution of the Philippines, Article 79 of the Constitution of Colombia, 1991, and Article 35 of the Constitution of the Republic of Korea year. See also the European Charter on Environment and Health (1989), UNGA Resolution 45/94 (1990), Principle 1 of the WCED Legal Principles (1986).

Regarding economic development, see Article 25(1) of the Universal Declaration of Human Rights (1948) and Article 11(1) of the Covenant on Economic, Social and Cultural Rights (1966). See also Principle 5 of the Rio Declaration and Article 11 (Eradication of Poverty) of the Draft Covenant.

¹⁰³ The right to a certain level of environmental quality is increasingly recognized in national law as well, appearing in the constitutions of Armenia – Chapter 2, Article 33.2, Angola – Part II, Article 24(1), Argentina – Part I, Chapter II, Article 41, Armenia – Chapter 2, Article 33.2; Azerbaijan – Part II, Chapter III, Article 39(I); Belarus – Section II, Article 46; Belgium – Title II, Article 23(4); Benin – Title II, Article 27; Bolivia – Title II, Chapter Five, Article 33; Brazil – Title VII, Chapter VI, Article 225; Bulgaria – Chapter 2, Article 55; Burkina Faso – Title I, Chapter IV, Article 29; Cape Verde – Part II, Title III, Article 72; Central African Republic – Title I, Article 9; Chad – Title II, Chapter I, Article 47; Chile – Chapter III, Article 19(8); Colombia – Title II, Chapter III, Article 79; Comoros – Preamble; Congo – Title II, Article 35; Costa Rica – Title V, Sole Chapter, Article 50; Cote D'Ivoire – Title I, Chapter I, Article 19; Croatia – Chapter III, Part 3, Article 69; Czech Republic (Charter of Fundamental Rights and Freedoms) – Chapter Four, Article 35; Democratic Republic of the Congo – Title II, Chapter 3, Article 53; Ecuador – Title II, Chapter Two, Section Two, Article 14; Ethiopia – Chapter 3, Part 2, Article 44; Finland – Chapter 2, Section 20(2); France (Charter of the Environment) – Article 1; Georgia – Chapter Two, Article 37(3); Guyana – Part 2, Title I, Article 149J(1); Indonesia – Chapter XA, Article 28H; Iraq – Section Two, Chapter One, Article 33(1); Kyrgyz Republic – Chapter II, Section 3, Article 35; Latvia – Chapter VIII, Article 115; Macaедonia – Chapter II, Part 2, Article 43; Maldives – Chapter II, Article 23; Mali – Title I, Article 15, Mexico – 1st Title, Chapter 1, Article 4; Mongolia – Chapter 2, Article 16; Montenegro – Part 2, Section

“development, health, well-being and dignity” reflects the totality of human rights protections: civil, political, economic, social and cultural rights. Also of note is that many rights are not absolute but may be limited for the protection of other humans, other species (Article 2 (Respect for All Life Forms)), future generations (Article 5 (Equity and Justice)), or the environment as a whole (Article 3 (Common Concern of Humanity)). This is also linked with Paragraph 2. Although this provision expresses individual rights, the exercise of collective rights is not precluded, as shown by Article 15.¹⁰⁴

The reference to basic needs as a priority matter reflects the decisions of UN treaty bodies that have determined the “core” rights and obligations inherent in economic, social and cultural rights. These are the minimum duties of states that must be met to provide the essential levels of each of the rights enunciated in the CESCR.¹⁰⁵

Paragraph 2 reiterates individual responsibility for the protection of the environment.¹⁰⁶ Most human rights instruments contain limitation clauses; some articulate express duties,¹⁰⁷ but human rights are not to be considered as conditional or dependent upon fulfilment of duties in a reciprocal

1, Article 23; Mozambique – Part II, Chapter I, Article 72; Nepal – Part 3, Article 16; Nicaragua – Title IV, Chapter III, Article 60; Niger – Title II, Article 27; Norway – Section E, Article 110(b); Palestine – Chap 2, Article 33; Paraguay – Part I, Chapter I, Section II, Art 7; Peru – Section I, Chapter II, Article 2; Portugal – Part I, Section III, Chapter II, Article 60; Republic of Moldova – Title 2, Chapter 2, Article 37; Romania Title II, Chapter II, Article 35(1); Russia – Chapter II, Article 42; Rwanda – Chapter II, Article 49; Senegal – Article 8; Serbia – Part II, Section I, Article 74; Seychelles – Chapter III, Part I, Article 38; Slovakia – Chapter II, Part VI, Article 44(1); Slovenia – Section III, Article 72; South Africa – Chapter 2, Article 24(a); South Korea – Chapter II, Article 35; Spain – Title I, Chapter III, Article 45; Sudan – Part I, Chapter II, Article 11; Togo – Title II, Subsection I, Article 41; Turkey – Part II, Chapter Three, Article 56(1); Turkmenistan – Section II, Article 36; Uganda – Chapter Four, Article 39.

¹⁰⁴ The Vienna Declaration (1993) reaffirms that

All human rights are universal, indivisible, interdependent and intimately connected. The international community must treat human rights globally ...

See, in addition, Articles 11(1) and 12(1) of the Covenant on Economic, Social and Cultural Rights (1966). Note, as well, Article 6(1) of the Covenant on Civil and Political Rights (1966) (right to life) and Article 8 of the European Human Rights Convention (1950) (right to privacy) and Article 1 of its Protocol 1 (right to possessions and property) may apply in cases where environmental degradation is such as to threaten human life. Case law, however, indicates that this might only apply to extreme circumstances (see e.g., UN HRC Decision No. 67/180 (1990), dismissed on account of non-exhaustion of local remedies, and *Powell and Rayner v. United Kingdom* (1990)).

¹⁰⁵ See e.g., CESCR, General Comment No. 14, UN Doc. E/C.12/2000/4 (Aug. 11, 2000) Para. 43; General Comment No. 15, E/C.12/2002/11 (Nov. 26, 2002) on the right to water.

¹⁰⁶ See Principle 1 of Stockholm Declaration (1972); the EC Fifth Environmental Action Programme; and the Declaration on Human Duties (1993). Also see various national constitutions, e.g., Article 97 of the Constitution of Guatemala (1985), which defines duties of the State, municipalities, and all inhabitants regarding the environment and ecological balance.

¹⁰⁷ E.g., Articles 27-29 of the African Charter on Human Rights (1981); Article 105 of the General Law on the Environment (Honduras); Article 17 of the Act on the Environment (Czech Republic) and Articles 4, 5 and 6 of the Basic Environmental Policy Act (Korea).

manner.¹⁰⁸ Rather, States could apply this provision on human duties to society in the form of civil or criminal responsibility, both nationally¹⁰⁹ and internationally,¹¹⁰ including for intentionally causing serious environmental harm. Another application is in the corresponding right of individual citizens in some countries to seek remedies for environmental harm.¹¹¹ The Aarhus Convention on Information, Participation and Redress explicitly recognizes the rights and duties of individuals in its Preamble where it states that “every person has the right to live in an environment adequate to his or her health and well-being, and the duty, both individually and in association with others, to protect and improve the environment for the benefit of present and future generations”.

Paragraph 3 expresses the right of access to information. The right to receive information on the general state of the environment and special information on projects which potentially affect the environment of humans is well known to both national¹¹² and international law (see also Article 49 (Information and Knowledge) and Article 50 (Education, Training and Public Awareness)). The language of Paragraph 3 conforms to the requirements of international human rights texts and treaties on environmental protection.¹¹³ The provision specifies that the right to information does not require

¹⁰⁸ E.g., Article 29 of the Universal Declaration of Human Rights (1948).

¹⁰⁹ See e.g., Article 106 of the General Law on the Environment (Decree 104-93 of 8 June) 1993 (Honduras); Chapter 1 of Decree 180 of 4 March 1993 (Cuba); Article 85 of Ley 99, 22 December 1993, Creación del Ministerio del Medio Ambiente (Colombia) and Articles 27, 28 and 30 of the Act on the Environment, 5 December 1991 (Czech Republic).

¹¹⁰ See e.g., Article 8(2)(b)(iv) of the Rome Statute of the International Criminal Court (1998) and Article 26 of the ILC Draft Code of Crimes Against the Peace and Security of Mankind (1991). See Article 9(2) of the Bamako Convention (1991) which deem the illegal transfer of hazardous waste to be a criminal offence.

¹¹¹ See e.g., *Sierra Club v. Morton* (1972), *Australian Conservation Foundation v. Commonwealth of Australia* (1980), and *R. v. Secretary of State for the Environment ex Parte Rose Theatre Trust Ltd.* (1990).

¹¹² See e.g., Act respecting Environmental Rights in Ontario (Canada) (1994).

¹¹³ The right to seek and disseminate information appears in all human rights texts, such as Article 19 of the Universal Declaration of Human Rights (1948), Article 19 of the Covenant on Civil and Political Rights (1966), Article 10 of the European Human Rights Convention (1950), and Article 9 of the African Charter on Human Rights (1981). In addition, numerous environmental texts mandate the provision of specific information on the environment, e.g., the European Union which has adopted a series of texts which provide for the right to information, the most general of which is the Directive on Freedom of Access to Information on the Environment (Directive 2003/4/EC)(2003). Almost all recent international treaties related to environmental protection include provisions concerning this issue: Article 6 of the Convention on Climate Change (1992), Article 3(8) of the Espoo Convention (1991); Article 16 of the ECE Transboundary Watercourses Convention (1992); Article 9 of the North-East Atlantic Convention (1992); Articles 14-16 of the Council of Europe Civil Liability Convention (1993). See also Principle 16 of the World Charter for Nature (1982), Principle 10 of the Rio Declaration (1992), and Principles 2(c) and (d) of the Forests Principles (1992). Article 14 of the Danube Convention (1994) (States shall make available information concerning the state or the quality of riverine environment in the basin to any natural or legal person in response to any reasonable request, without the person having to prove an interest) and Aarhus Convention (1998).

that the requesting person prove an interest. This finds support in international and national law.¹¹⁴ The right can imply pro-active measures by the State to acquire and disseminate information on the state of the environment and on any emergencies that might arise as well as adequate product information to enable consumers to make informed environmental choices.¹¹⁵ Information rights also include the right to share information with others. Considerable jurisprudence exists on the right to freedom of expression, including some cases arising specifically on the dissemination of information about an aspect of environmental protection.¹¹⁶

Paragraph 4 guarantees the right of public participation to all concerned persons, including indigenous peoples, local communities and non-governmental organizations. Public participation in the decision-making process concerning the environment is now considered to be a fundamental ingredient of sustainable development (see also Article 32(e) (Consumption and Production Patterns), Article 37(c) (Transboundary Environmental Effects), and Article 42(3) (Environmental Impact Assessment)),¹¹⁷ and, more generally, to be a necessary component of a democratic society.¹¹⁸ Paragraph 4 thus embodies current human rights and environmental law, as reflected in Principle 10 of the Rio Declaration and the WSSD Plan of Implementation which proposes that States ensure public participation in decision-making, as well as access, at the national level, to environmental information and to judicial and administrative proceedings. Paragraph 4 also draws inspiration from the WSSD Declaration on Sustainable Development, which reaffirmed the vital role of indigenous peoples in sustainable development. Local and non-governmental actors are essential in the implementation of environmental rules and the best protection will be achieved by involving as many people as possible in the initial decision-making. Often these actors can bring new and useful perspectives to the process. This provision does not seek to prescribe the precise venues for such participation because these will vary. For example, full public hearings may be appropriate for issues of widespread community or national concern, whereas in other instances simply a notice-and-comment period might be sufficient. Capacity-building in developing

¹¹⁴ See e.g., Article 4(1)(a) of the Aarhus Convention (1998).

¹¹⁵ See Article 5 Aarhus Convention (1998).

¹¹⁶ See, e.g., *Bladet Tromsø and Stensaas v. Norway*, 1999-III 29 Essex Human Rights Review (EHRR) 125; *Steel and Morris v. UK*, 2005-II; 41 EHRR 403.

¹¹⁷ The process leading up to the Rio Conference itself was an important step in encouraging the participation of non-governmental organizations and the representatives of economic interests. Principle 10 of the Rio Declaration (1992) recognizes a general right to public participation and Principles 20-22 stress the participation of different components of the population. Public participation also is emphasised throughout Agenda 21 (1992). See, further, Principle 23 of the World Charter for Nature (1982); Article 5 of the Desertification Convention; Article 6 of the Aarhus Convention (1998).

¹¹⁸ See e.g., Article 21 of the Universal Declaration of Human Rights (1948), Article 25 of the Covenant on Civil and Political Rights (1966), Article 3 of the 1954 Paris Protocol I of the European Human Rights Convention, Article 13 of the African Charter on Human Rights (1981), Article 23 of the American Convention on Human Rights (1969), and ILO Indigenous Peoples Convention (1989), and Chapter 27 of Agenda 21 (1992).

countries should take place where implementing this provision might cause undue administrative and financial difficulties.¹¹⁹

Paragraph 5 expresses the right to effective access to judicial and administrative proceedings (as formulated in Article 9(3) of the 1998 Aarhus Convention) which is a natural complement of the right to environment and well settled in international human rights and environmental law.¹²⁰ It includes international norms on non-discrimination,¹²¹ and is intended to apply both domestically and internationally. With regard to redress and remedy for environmental harm, this provision should be read in conjunction with Article 13(2) (States), Article 56 (International and Domestic Remedies), and Article 57 (Non-Discrimination), whereas the other procedures contemplated here include those in connection with Article 14(6) (Physical and Legal Persons), Article 37(c) (Trans-boundary Environmental Effects) and Article 42(3) (Environmental Impact Assessment).

Paragraph 6 seeks to promote the participation of all local communities, indigenous peoples, and marginalized or vulnerable persons in environmental decision-making. This is increasingly considered a significant aspect of sustainable development¹²² and is particularly important in relation to the use of natural resources, as has been recognized in international law.¹²³ The following article further reflects the existing law on the land and resources rights of indigenous peoples.

¹¹⁹ See also Articles 49 (Information and Knowledge), 50 (Education, Training and Public Awareness) and 52(1)(b) (International Financial Resources).

¹²⁰ E.g., Article 2 of the Covenant on Civil and Political Rights (1966); Article 6 of the European Convention on Human Rights (1950); Article 8 of the American Convention on Human Rights (1969). See also Article 2 of the USA-Canada 1909 Boundary Waters Treaty (1909); Article 5(3) of the Convention on Jurisdiction and Enforcement of Judgements in Civil and Commercial Matters (1968); *Mines de Potasse d'Alsace* (1976) case; Article 3 of the Nordic Convention (1974); Article 2(6) of the Espoo Convention (1991), and Articles 19 and 23 of the Council of Europe Civil Liability Convention (1993). See also OECD Council Recommendation on Implementation of a Regime of Equal Right of Access and Non-Discrimination in Relation to Transfrontier Pollution (1977), and Principle 20 of WCED Legal Principles (1986).

¹²¹ E.g., Article 26 of the Covenant on Civil and Political Rights (1966).

¹²² See e.g., Principle 22 of the Rio Declaration (1992), Paragraph 26.3 of Agenda 21 (1992) and Articles 4(1) and 7(3)(4) of the ILO Indigenous Peoples Convention (1989). See also the Declaration on the Establishment of the Arctic Council (1996). A major feature of the Council is the involvement of indigenous peoples as Permanent Participants, based on “recognition of the special relationship and unique contributions to the Arctic of indigenous peoples and their communities” (Preamble). The category of Permanent Participation is created “to provide for active participation and full consultation with the Arctic indigenous representatives within the Arctic Council”.

¹²³ E.g., Article IV of the Whaling Convention (1946), Article V(2)(d) of the North Pacific Seals Convention (1957), Article III(1)(d) and (e) of the Polar Bears Agreement (1973), Article 12 of the Protocol to the East African Marine Environment Convention Concerning Protected Areas and Wild Fauna and Flora (1985), and Article 3 of the EC Council Directive Concerning the Importation of Skins of Certain Seal Pups (1983).

ARTICLE 15

INDIGENOUS PEOPLES

Indigenous Peoples shall have a collective right to protection of the environment, including their lands, territories and resources, as distinct peoples in accordance with their traditions and customs.

Special measures for securing indigenous human rights have been recognized and applied by numerous international and national bodies,¹²⁴ including the Inter-American Court of Human Rights, the International Labour Organization,¹²⁵ the United Nations' Human Rights Committee,¹²⁶ the United Nations' Committee to Eradicate All Forms of Racial Discrimination,¹²⁷ and the domestic legal systems of states.¹²⁸ On September 13, 2007, the United Nations adopted the UN Declaration on the Rights of Indigenous Peoples.

ILO Convention No. 169 concerning Indigenous and Tribal Peoples in Independent Countries (Geneva, June 27, 1989) contains numerous references to the lands, resources, and environment of indigenous peoples. Article 2 provides that actions respecting indigenous peoples shall be developed with the participation of the peoples concerned. Special measures are to be adopted for safeguarding the environment of such peoples consistent with their freely-expressed wishes (Art. 4). States parties must consult indigenous peoples (Art. 6) and provide for their participation in formulating national and regional development plans that may affect them (Art. 7). Environmental impact assessment must be done of planned development activities with the cooperation of the peoples concerned (Art. 7(3)) and "Governments shall take measures, in cooperation with the peoples concerned, to protect and preserve the environment of the territories they inhabit" (Art. 7(4)). Rights to remedies are provided in Article 12. Part II of the Convention addresses land issues, including the rights of the peoples concerned to the natural resources pertaining to their lands. The rights include "the right to participate in the use, management and conservation of these resources" (Art. 15). Article 30 requires the governments to make known to the peoples concerned their rights and duties.

The Inter-American Human Rights Commission has concluded that the provisions of ILO Convention Number 169 "provide evidence of contemporary international opinion concerning

¹²⁴ *Id.* ¶ 97.

¹²⁵ ILO Indigenous Peoples Convention (1989).

¹²⁶ See e.g., UN Human Rights Council, *International Covenant on Civil and Political Rights General Comment No. 23*, Art. 27, ¶ 7, UN Doc. HRI/GEN/1/Rev.1 (1994) [hereinafter *Gen. Cmt. 23*].

¹²⁷ See e.g., UN Comm. on the Elimination of Racial Discrimination, *General Recommendation XXIII Concerning Indigenous Peoples*, UN Doc. CERD/C/51/Misc.13/Rev.4 (1997) [hereinafter *Gen. Rec. XXIII*].

¹²⁸ For a compilation of domestic legislation governing the rights of indigenous peoples in numerous Organization American States (OAS) member states, see Inter-Am. Comm'n on Human Rights (IACHR), *Authorities and Precedents in International and Domestic Law for the Proposed American Declaration on the Rights of Indigenous Peoples*, OEA/Ser.L/V/II.110 Doc. 22 (2001).

matters relating to indigenous peoples, and therefore that certain provisions are properly considered in interpreting and applying the articles of the American Declaration in the context of indigenous communities”.¹²⁹ Where indigenous lands and resources are concerned, development projects must respect collective ownership rights and “development activities must be accompanied by appropriate and effective measures to ensure that they do not proceed at the expense of the fundamental rights of persons who may be particularly and negatively affected, including indigenous communities and the environment upon which they depend for their physical, cultural and spiritual well-being”.¹³⁰

Indigenous peoples may assert a right to property to protect their traditional lands and resources¹³¹ from exploitation and environmental degradation.¹³² States have been called on to take the measures aimed at restoring, protecting, and preserving the rights of indigenous peoples to their ancestral territories.¹³³ States thus must abstain from realizing acts or allowing the realization of acts by its agents or third parties that could affect the existence, value, use, or enjoyment of indigenous lands and resources.¹³⁴

In its 2007 judgment in the case of the *Saramaka People v. Suriname*,¹³⁵ the Inter-American Court set forth three safeguards it deemed essential to protect indigenous and tribal resources: (1) the state must ensure the effective participation of the members of the group, in conformity with their customs and traditions, regarding any development, investment, exploration or extraction plan within its territory; (2) the state must guarantee that the members of the group will receive a reasonable benefit from any such plan within their territory; and (3) the state must ensure that no concession will be issued within the territory unless and until independent and technically capable entities, with the state’s supervision, perform a prior environmental and social impact assessment.¹³⁶

¹²⁹ *Maya Indigenous Communities of the Toledo District v. Belize*, Case 12.053, IACHR, Report No. 40/04, ¶ 123 (2004) [hereinafter *Toledo Maya Case*]; see also *Mary and Carrie Dann v. United States*, Case 11.140, IACHR, Report No. 75/02, OEA/Serv.L/V/II.117, doc. 1 rev. 1, ¶ 127 (2002) [hereinafter *Dann Case*] ¶¶ 127-31.

¹³⁰ See also IACHR, *Report on the Situation of Human Rights in Brazil*, OEA/Ser.L/V/II.97, doc. 29 rev. 1, ch. VI (Sept. 29, 1997), and the *Third Report on the Situation of Human Rights in Paraguay*.

¹³¹ The Inter-American Court extends the protection of property to communally owned lands and even to lands occupied and used by indigenous peoples that are not considered by them to be “owned”. *The Mayagna (Sumo) Awas Tingni Community v. Nicaragua*, 2001 Inter-Am. Court of Human Rights (ser. C) No. 79 (Aug. 31, 2001) [hereinafter *Awas Tingi Case*]; For relevant facts and events prior to the Inter-American Court’s adjudication of the matter, see *id.* 103.

¹³² See, e.g., *Yanomami Case*, *Dann Case*.

¹³³ See, e.g., *Yanomami Case*, *Dann Case*.

¹³⁴ *Id.* ¶ 173(4).

¹³⁵ *Case of the Saramaka People v. Suriname*, 2007 IACHR (ser. C) No. 172 (Nov. 28, 2007) [hereinafter *Saramaka Case*]. See also *Sawhoyamaxa Indigenous Community v. Paraguay Case*, 2006 IACHR (ser. C) No. 146, ¶¶ 248(1)-(3) (Mar. 29, 2006).

¹³⁶ *Id.* ¶ 129.

These requirements parallel the Bonn Guidelines on Access and Equitable Benefit-Sharing, adopted pursuant to the Convention on Biological Diversity. The Court itself cited the views of the U.N. Human Rights Committee,¹³⁷ ILO Convention Number 169,¹³⁸ World Bank policies,¹³⁹ and the 2007 U.N. Declaration on the Rights of Indigenous Peoples.¹⁴⁰ This right to compensation extends to any deprivation of the regular use and enjoyment of property.¹⁴¹

ARTICLE 16

INTEGRATED POLICIES

- 1. Parties shall pursue integrated policies aimed at eradicating poverty, encouraging sustainable consumption and production patterns, and conserving biological diversity and the natural resource base as overarching objectives of, and essential requirements for, sustainable development.**
- 2. Parties shall, at all stages and at all levels, integrate environmental conservation into the planning and implementation of their policies and activities, giving full and equal consideration to environmental, economic, social and cultural factors. To this end, the Parties shall:**
 - a) conduct regular national reviews of environmental and developmental policies and plans;**
 - b) enact, periodically review, and enforce laws and regulations; and**
 - c) establish or strengthen institutional structures and procedures to integrate environmental and developmental issues in all spheres of decision-making.**
- 3. Parties which are members of international organizations undertake to pursue within such organizations policies which are consistent with the provisions of this Covenant.**

¹³⁷ *Id.* ¶ 130 & n.128; see UN Human Rights Comm., *CCPR General Comment No. 23: Article 27 (The Rights of Minorities)*, UN Doc. CCPR/C/21/Rev1/Add.5 (Apr. 8, 1994); *Apirana Mahuika v. New Zealand*, Communication No. 547/1993, UN Doc. CCPR/C/70/D/47/1993 (Nov. 15, 2000).

¹³⁸ *Id.* n. 128.

¹³⁹ *Id.*; see *Operational Policy/Bank Procedure 4.10: Indigenous Peoples*, in WORLD BANK, THE WORLD BANK OPERATIONAL MANUAL (2005).

¹⁴⁰ *Id.* ¶ 131; see United Nations Declaration on the Rights of Indigenous Peoples, UN Doc. A/61/L.67/Annex (Sept. 12, 2007).

¹⁴¹ *Id.* ¶ 139.

Article 16 provides substantive and procedural guidance for giving effect to the concept of sustainable development, which requires integrating environmental and developmental policies.¹⁴² Although long recognized as essential,¹⁴³ only relatively recently has the term “sustainable development” become widely used.¹⁴⁴ It is incorporated in the UN Framework Convention on Climate Change (1992), the Convention on Biological Diversity (1992), the Desertification Convention (1994) and the Straddling Stocks Convention (1995). It also features in the preamble to the 1995 Agreement on the Establishment of the World Trade Organization according to which Members should, in their trade and economic relations, allow for the “optimal use of the world’s resources in accordance with the objective of sustainable development”. It also appears in international judicial decisions.¹⁴⁵ As stated earlier, it encompasses the reality that environmental conservation and economic development are mutually supportive and should be pursued nationally and internationally.¹⁴⁶

Paragraph 1 contains the substantive contents of sustainable development. Many of these elements are given further operational detail in subsequent provisions of the Draft Covenant. The list is not exhaustive, although each objective is mandatory and all are interdependent and of equal importance. The requirement “to pursue” demands best efforts to comply; clearly the individual capacity of each Party will determine the results that can be achieved.

Paragraph 2 details the mechanisms for integrating environmental and developmental ends, obligating Parties to take specific actions. The reference to “planning and implementation” in the chapeau connotes integrated processes and activities “at all levels” international and national (*i.e.* national, regional, and local). The core obligation in the chapeau is for “full and equal consideration” of environmental, economic, social, and cultural factors, meaning that each imperative is considered in a fair manner without priority of one over another. The subparagraphs that follow list specific procedural steps to be taken. **Subparagraph (a)** might be achieved in the context of national action plans required under Article 40 (Action Plans); **subparagraph (b)** calls on Parties to enact laws and regulations that are effective to achieve this integration and the reference to “economic instruments” can be considered in the context of implementing Article 51(2) (National Financial Resources); and **subparagraph (c)** requires that governmental decision-making be structured to fully integrate these issues.

Paragraph 3 guides Parties in their actions as members of international organizations, in recognition of the importance and power of some of these bodies, such as multilateral develop-

¹⁴² See also Article 1 (Objective).

¹⁴³ See e.g., Principles 8-14 of the Stockholm Declaration (1972).

¹⁴⁴ See e.g., Chapter 9 of the World Conservation Strategy (1980), WCED Brundtland Report (1987), Principle 4 of the Rio Declaration (1992) and Chapter 8 of Agenda 21 (1992).

¹⁴⁵ See e.g., I.C.J., Nuclear Test Case (New Zealand v. France, 1995); Advisory Opinion on The Legality of the Threat or Use of Nuclear Weapons (1996); Gabcikovo-Nagymaros Case (Hungary/Slovakia, 1997); WTO Appellate Body, United States-Import Prohibition of Certain Shrimp and Shrimp Products Case (1998).

¹⁴⁶ See e.g., Article 2 of the ASEAN Agreement (1985) and Article 7 of WCED Legal Principles (1986).

ment banks. This provision purposely does not directly govern the acts of such organizations; international law in this area is not yet ripe for a general rule of such a nature.¹⁴⁷ This is reflected in the fact that the only provision made in the Draft Covenant for international organizations to become Party are those that are regional economic integration organizations.¹⁴⁸ The undertaking sought by this provision is for Parties to use their best efforts to influence the behaviour of such organizations, if necessary seeking to amend any relevant statutes accordingly. Article 3(7) of the Aarhus Convention (1998) supports this provision; it requires that each Party promote the application of the principles of the Convention in international environmental decision-making processes and within the framework of international organizations in matters relating to the environment. Similarly, Article 12(1) of the Straddling Stocks Agreement (1997) calls for States to apply goals of public information and participation within international organizations: “States shall provide for transparency in the decision-making process and other activities of sub-regional and regional fisheries management organizations and arrangements”.

ARTICLE 17

TRANSFER OR TRANSFORMATION OF ENVIRONMENTAL HARM

Parties shall not resolve their environmental problems by transferring, directly or indirectly, harm or hazards from one area or medium to another or transforming one type of environmental harm to another.

Environmental law and policy must take into account the interdependence of different sectors of the environment. Ocean pollution taints the shore, as recognized in the 1982 United Nations Convention on Law of the Sea (UNCLOS) and a number of regional instruments.¹⁴⁹ In turn, a large proportion of marine pollution derives from land-based sources. Atmospheric pollution can affect the Earth and imperil forests and buildings. The 1992 UN Framework Convention on Climate Change recognizes that climate change due to emissions of certain gases into the air can have significant deleterious effects on the composition, resilience or productivity of natural and managed ecosystems, on the operation of socio-economic systems, and on human health and welfare.¹⁵⁰ Freshwaters receive a large part of their pollution from the soil, whose pollutants may seep into the underground water table. All pollutants endanger biodiversity. Such interrelationships necessarily have international consequences, because the transfer of pollution from one milieu to another will frequently result in transboundary impacts. International instruments, notably UNCLOS, stress the need to avoid substituting injury or risk to one sector of the environment with injury to another and of replacing one type of pollution with another.¹⁵¹

¹⁴⁷ Note, for example, the fact that the Convention on the Law of Treaties between States and International Organizations (1986) has not yet entered into force.

¹⁴⁸ See Part XI.

¹⁴⁹ United Nations Convention on the Law of the Sea (UNCLOS, 1982), Art. 211.

¹⁵⁰ New York, 9 May 1992, Art. 1(1).

¹⁵¹ UNCLOS, Art. 195.

Article 17 seeks to ensure that efforts to protect the environment lead to net improvements. National environmental policies initially were developed in a piecemeal fashion, often geared towards specific sectors like air or water. This had a major impact on the development of international environmental law. An increased awareness of the complex interrelationship among different components of the environment has shifted the philosophical underpinnings of environmental thinking towards an ecosystem approach and a holistic view.¹⁵² This provision is equally applicable to domestic and international environment policy.¹⁵³

The provision lays down procedural and substantive means to achieve a substantive end. The substantive element is a prohibition on the transfer of environmental harm to other areas or environmental media (air, water, soil), or to other forms of harm.¹⁵⁴ It would be inappropriate, for example, to install scrubbers that reduce air emissions but produce wastewater that can transfer toxic substances to the aquatic environment. The procedural element requires a comprehensive assessment of environmental measures to ensure that the substantive objective is reached.

This provision follows from the essential purpose of the Draft Covenant; *i.e.*, to create an integrated set of obligations to afford the highest possible level of protection for the environment as a whole. It is premised on the fundamental principle that nature as a whole warrants respect (see Article 2 (Respect for All Life Forms)), and thus rejects the notion that some forms of environmental harm are less undesirable than others.

Among the legal antecedents of this provision, most prominent is the injunction of UNCLOS (1982) that “[i]n taking measures to prevent, reduce and control pollution of the marine environment, States shall act so as not to transfer, directly or indirectly, damage or hazards from one area to another or transform one type of pollution into another”.¹⁵⁵ This goes further than merely enjoining the substitution of more detrimental environmental harm,¹⁵⁶ in that even the transfer of

¹⁵² See e.g., Principle 7 of the Rio Declaration (1992).

¹⁵³ As regards international policy, see e.g., the North East Atlantic Convention (1992), which formalizes the administrative reality whereby the secretariats of the Oslo Marine Pollution Convention (1972), which deals with dumping of wastes, and the Paris Marine Pollution Convention (1974), which addresses land-based sources of marine pollution, operate jointly to regulate the same geographic area.

¹⁵⁴ For a similar prohibition, see Article 6 of the Cairo Guidelines on Hazardous Wastes (1987).

¹⁵⁵ Article 195. See also Articles 207-212 of UNCLOS (1982), Article 6 of the Paris Marine Pollution Convention (1974), Article 6 of the Baltic Sea Convention (1974), and Article 4 of the 1980 Athens Protocol on the Protection of the Mediterranean Sea against Pollution from Land-Based Sources to the Barcelona Convention (1976). Article 23 of the Watercourses Convention (1997) (States Parties shall take all measures with respect to an international watercourse that are necessary to protect the marine environment, including estuaries).

¹⁵⁶ See e.g., Article III(e) of the Kuwait Regional Convention (1978), which states: “The Contracting States shall use their best endeavour to ensure that the implementation of the present Convention shall not cause transformation of one type of pollution to another which could be more detrimental to the environment.”

an equivalent level of harm is prohibited. It would, however, permit the transfer or substitution of lesser forms of harm.¹⁵⁷

Achieving compliance with this provision entails a cross-sectoral and multi-media approach to solving environmental problems. The concept of “integrated pollution control” (IPC) has been applied on a limited basis in some industrialized countries¹⁵⁸ and the European Union.¹⁵⁹ IPC has several characteristics, including a comprehensive and unified system of permits, a mandatory high standard of emissions control, and regulatory consideration of the entire life-cycle of products.¹⁶⁰ IPC presupposes the use (not necessarily exclusively) of environmental quality objectives, bearing in mind point, non-point, and mobile sources of pollution in all media.

The present provision contemplates broader action than IPC, signalled by the use of the term “environmental harm” and the reference to the rehabilitation of ecosystems and natural resources. Ideally Parties would adopt comprehensive ecosystem-based management plans, which would take into account all potential threats.¹⁶¹ This might require institutional adjustments to support integrated and coordinated decision-making, inspection and enforcement.¹⁶²

An integrated approach can better identify environmental priorities, allow more interaction between environmental policy and other policy sectors, and lead to more rational use of institutional resources.¹⁶³ Setting cross-sectoral standards and targets will also assist in reducing the risks of environmental harm because risk analysis methods will be harmonized and there will be less danger of different departments regulating the same substances using different methods and criteria.

¹⁵⁷ This is expressed, for example, in the note to Guideline 6 of the Montreal Guidelines for the Protection of the Marine Environment Against Pollution from Land-Based Sources (1985).

¹⁵⁸ See especially the New Zealand Resource Management Act (1991) which integrates all aspects of resource management. And see also the Pollution Control Act (1981) of Norway; Environment Protection Act (1969) of Sweden; and Federal Immissions Control Act (1990/2007) of Germany.

¹⁵⁹ See the Directive on Integrated Pollution Prevention and Control (2008/1/EC).

¹⁶⁰ This is referred to as the “cradle to grave” concept, and is recommended in Article 1(a) of the OECD Council Recommendation on Integrated Pollution Prevention and Control (1991).

¹⁶¹ See e.g., Section 208(a) of the US Clean Water Act.

¹⁶² This is advocated by the OECD Council Recommendation on Integrated Pollution Prevention and Control (1991), Appendix, Article 6(e), although in the more limited context of pollution control.

¹⁶³ The World Commission on Environment and Development pointed out that “The integrated and interdependent nature of the new challenges and issues contrasts sharply with the nature of the institutions that exist today. These institutions tend to be independent, fragmented, and working to relatively narrow mandates with closed decision processes. Those responsible for managing natural resources and protecting the environment are institutionally separated from those responsible for managing the economy. The real world of interlocked economic and ecological systems will not change; the policies and institutions concerned must”. WCED Brundtland Report (1987) at p. 310.

ARTICLE 18

EMERGENCIES

- 1. Parties shall, without delay and by the most expeditious means available, notify potentially affected States and competent international organizations of any emergency originating within their jurisdiction or control, or of which they have knowledge, that may cause harm to the environment.**
- 2. A Party within whose jurisdiction or control such emergency originates shall immediately take all practicable measures necessitated by the circumstances, in cooperation with affected and potentially affected States, and where appropriate, competent international organizations, to prevent, mitigate and eliminate harmful effects of the emergency.**
- 3. Parties shall take all necessary measures to provide immediate relief for those displaced by natural disasters.**

Article 18 addresses sudden, unforeseen threats to the environment resulting from intentional or negligent human conduct or from natural causes. Recognizing that emergencies cannot always be prevented or controlled, the provision contains obligations of conduct rather than result. To some extent, the wording derives from the two IAEA treaties concluded after the 1986 Chernobyl nuclear accident.¹⁶⁴

Paragraph 1 contains fundamental requirements in cases of emergency, namely, notification of potentially affected States and relevant international organizations. “Emergency” should be thought of as any situation which causes, or poses an imminent threat of causing, serious harm to the environment of other States or areas beyond national jurisdiction.¹⁶⁵ Notification is an obligation rooted in customary international law and is connected with each State’s due diligence obligation to prevent harm to another State’s environment and to areas beyond national jurisdiction (see Article 13 (States)).¹⁶⁶ The duty to warn has been codified in several international treaties and has been extended to include incidents of which a State has knowledge even where located outside its territory.¹⁶⁷ Because of this status, the obligation to notify includes an obligation to give notice to

¹⁶⁴ Nuclear Notification Convention (1986) and Nuclear Assistance Convention (1986). See also Oil Pollution Preparedness Convention (1990).

¹⁶⁵ Article 28(1) of the Watercourses Convention (1997) makes clear that “emergencies” include situations arising from natural causes and that the duty is to notify potentially affected states and competent international organizations “without delay and by the most expeditious means available”.

¹⁶⁶ See also, e.g., the *Corfu Channel* case, where the Court held that the obligation to notify other ships in their waters of the existence of a minefield was also based on the “elementary considerations of humanity”.

¹⁶⁷ See e.g., Article 13 of the Basel Convention (1989); Article 198 of the UNCLOS (1982); Article 11 of the Rhine Chemical Convention (1976); Article 9(2) of the Barcelona Convention (1976); Article

States not party to the Draft Covenant. Implicit in this obligation is a requirement that each Party establish a sufficiently effective monitoring system of activities under its jurisdiction so as to be able to notify others in a timely manner.¹⁶⁸ Notification is to take place immediately upon learning of the emergency. The “most expeditious means available” are those which are the most rapid. Once initial notification of the incident is completed, Parties should, to the best of their ability, continue to notify those affected, or potentially affected, of further details of the incident so as to allow those notified to take mitigating measures. The notifying Party should also indicate what mitigating measures it has taken.¹⁶⁹

The obligation contained in *Paragraph 2* follows upon the first, and requires all potentially affected Parties, including the Party of origin, to cooperate in dealing with the emergency. For the Party of origin, this again stems from the duty not to knowingly cause harm to the environments of other States or of areas beyond national jurisdiction. The requirement that other Parties cooperate in this regard follows from the obligation on Parties to the Covenant to take measures to protect their own environment (Article 13 (States)) and from the general international legal duty to cooperate, which is why the provision also calls for cooperation with States not party to the Draft Covenant and with relevant international organizations. The substance of the obligation in this context has been codified in treaty law.¹⁷⁰ Parties are required to cooperate only to the extent that their capabilities so permit, and to their best abilities.

Paragraph 3 applies the principles of prevention and precaution (Articles 6 and 7), based on provisions in a number of international instruments.¹⁷¹ Compliance with this obligation also

11(2) of the Wider Caribbean Marine Environment Convention (1983) and Article 9(b) of the Kuwait Regional Convention (1978). Also see Principle 18 of the Rio Declaration (1992), Articles 16 and 17 of the Danube Convention (1994). The duty to warn may extend also to the public that may be affected by an emergency. See Article 5(c) of the Aarhus Convention (information on emergencies “which could enable the public to take measures to prevent or mitigate harm arising from the threat must be disseminated immediately and without delay to members of the public who may be affected”).

¹⁶⁸ See also Article 44 (Monitoring of Environmental Quality).

¹⁶⁹ See Article 7 of the ILA Montreal Rules on Transfrontier Pollution (1982).

¹⁷⁰ See e.g., Article 199 of UNCLOS (1982); Article 5 of the LRTAP Convention (1979); Article 7 of the North-Sea Oil Pollution Agreement (1983); Article 7 of the Oil Pollution Preparedness Convention (1990); Article 9 of the Barcelona Convention (1976); Article XI of the South-East Pacific Hydrocarbons Agreement (1981); Article 6 of the Protocol Concerning Cooperation in Combating Marine Pollution in Cases of Emergency (1985) to the Eastern African Marine Environment Convention; Article 1 of the North-East Atlantic Pollution Convention (1990). See also Principle 18 of the Rio Declaration (1992).

¹⁷¹ For domestic environmental emergencies, see Article 14(1)(e) of the Convention on Biological Diversity (1992). Regarding transboundary environmental emergencies, see e.g., Article 199 of the UNCLOS (1982); Article 7 of the North Sea Oil Pollution Convention (1983); Articles 19 and 20 of the ASEAN Agreement (1985); Article 12 of the West and Central African Marine Environment Convention (1981); Article 7 of the Nuclear Assistance Convention (1986); and Article 6 of the 1983 Protocol Concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region to the Wider Caribbean Marine Environment Convention.

requires compliance with Article 37 (Transboundary Environmental Effects) and Article 42 (Environmental Impact Assessment) for potential emergencies in a State's own environment. In the case of potential transboundary environmental harm, cooperation with other States should flow from the notification and consultation process which each Party is required to initiate (Article 37(b) (Transboundary Environmental Effects)).

PART IV. OBLIGATIONS RELATING TO NATURAL SYSTEMS AND RESOURCES

Part IV concerns all the components and resources of the Earth. Although these are dealt with in separate Articles for clarity of legal obligations, the components are interrelated and indivisible aspects of the unity of the biosphere. The sectoral approach reflected in this Part formed the major part of early measures of environmental protection. Because of the potential harm that may result from treating each sector in isolation, all the provisions of this Part should be read in light of Article 17.

ARTICLE 19

STRATOSPHERIC OZONE

Parties shall take all appropriate measures to prevent or restrict human activities which modify or are likely to modify the stratospheric ozone layer in ways that adversely affect human health and the environment.

Article 19 is largely based on the international legal regime for protection of the stratospheric ozone layer,¹⁷² established by the Vienna Convention on the Ozone Layer (1985), its Montreal Protocol (1987), and adjustments thereto.¹⁷³ This regime was established in the aftermath of the discovery of an alarming rate of loss of stratospheric ozone, largely due to human introduction into the atmosphere of chlorofluorocarbons (CFCs), halons, and other chlorine-based substances. The persistent problem of ozone depletion requires global action and a specific provision to this effect is thus included in the Draft Covenant. This provision is an application of the principle that the safeguarding of the global environment is a common concern of humanity (Article 3).

The primary goal of this provision is to prevent the depletion of the ozone layer, thereby protecting human health and the environment. The means for accomplishing this goal involve the restriction of certain human activities. The regime outlined in the Montreal Protocol, which contains

¹⁷² Article 1(1) of the Vienna Convention on the Ozone Layer (1985) defines the ozone layer as that layer of atmosphere ozone above the planetary boundary layer.

¹⁷³ Adjustments were made by the Conference of the Parties in London 1990, Copenhagen 1992, Vienna 1995, Montreal 1997, Beijing 1999, and Montreal 2007.

lists of substances to be phased out over an agreed time period, should be the basis of effective action.

While the current regime gives effect to principles of prevention and precaution (Article 6 and Article 7), the Draft Covenant goes further by requiring States to take all appropriate measures to prevent depletion of stratospheric ozone.¹⁷⁴

The second sentence of this provision mandates specific action by Parties, namely the restriction of human activities. This should be understood in the sense of requiring Parties to “control, limit, reduce or prevent human activities” which have or are likely to modify the ozone layer.¹⁷⁵ Further elaboration of this notion appears in the detailed regime of the Montreal Protocol for the phasing out of ozone-depleting substances, including their consumption and production.¹⁷⁶ In order to prevent “free riders”, it would also encompass import and export restrictions on controlled substances listed in the Montreal Protocol,¹⁷⁷ as well as trade restrictions on items produced with such substances.¹⁷⁸ These trade restrictions should comply with Articles 34(1) (Trade and Environment).

Article 19 requires Parties to take a broad range of measures. In order to prevent a universal restriction on ozone-depleting substances from interfering with the right to sustainable development in accordance with Article 10 (Right to Development), environmentally sound technology should be transferred from the industrialized to the developing world.¹⁷⁹ This is because developing countries might be denied substances which have played an important role in the industrial development of OECD States and because it would compensate the developing world for the damage caused by using ozone-depleting substances, acknowledging that the vast majority of such substances have been emitted from the industrialized world. Another important strategy in this regard will be to alter consumption patterns in industrialized countries, thereby giving effect to Article 32 (Consumption and Production Patterns).

¹⁷⁴ The comparable provision of the Vienna Convention on the Ozone Layer (1985), Article 2(2)(b) states that “Parties shall ... adopt appropriate legislative or administrative measures and cooperate in harmonizing appropriate policies to control, limit, reduce or prevent human activities under their jurisdiction...”.

¹⁷⁵ This is what is required under Article 2(2)(a) of the Vienna Convention on the Ozone Layer (1985).

¹⁷⁶ See Articles 2 and 3.

¹⁷⁷ Articles 4(1) and (2).

¹⁷⁸ This is what is contemplated by Article 4(4) of the Montreal Protocol (1987).

¹⁷⁹ See also Article 47 (Development and Transfer of Technology).

ARTICLE 20

GLOBAL CLIMATE

Parties shall take precautionary measures to protect the Earth's climate system and mitigate the adverse effects of climate change. To these ends, they shall cooperate internationally *inter alia* to:

- (a) Measure their emissions and implement nationally appropriate mitigation actions; and**
- (b) Establish risk management and implement adaptation measures to enable climate-resilient development.**

The WSSD Plan of Implementation reaffirmed that change in the Earth's climate and its adverse effects are a common concern of humankind. Article 20 is designed to ensure regulation of anthropogenic influences on the climate system caused by emissions of greenhouse gases.¹⁸⁰ It is modelled on the Framework Convention on Climate Change, and is best applied on a multilateral basis, with due recognition of common and differentiated responsibilities. Accordingly, the Draft Covenant should be thought of as a "related legal instrument" referred to in Article 2 of the Climate Change Convention (1992). The present provision is based on the concept of critical load: *i.e.*, that a certain threshold of acceptable emissions exists.¹⁸¹ Its wording reflects scientific evidence that current levels of greenhouse gas emissions cannot be considered safe.¹⁸² In fact, the lack of full scientific certainty on the causes of what may turn out to be a catastrophe means that the application of this provision should be done in the spirit of precaution (Article 7).

The language of this provision is taken almost verbatim from Article 2 of the Climate Change Convention, although in the Draft Covenant the provision is stated as an immediate obligation, rather than an "objective" as in the earlier Convention. Article 20 calls on Parties to take action within certain time-periods, which if implemented multilaterally, will require agreed timetables for emissions reductions.¹⁸³ Parties should act immediately, recognizing the need to ensure that the enumerated processes are not threatened, notwithstanding that "to allow eco-systems to adapt naturally to climate change" might suggest a longer time-frame. The reference to "economic development" reaffirms the integration of environment and development objectives (Article 16 (Integrated Policies)). It should be understood in a global sense, acknowledging that some developing countries may be required to follow development patterns in the short term which are less sustainable than in those of industrialized countries (see Article 11 (Eradication of Poverty)). As such, Article 20

¹⁸⁰ See Article 1(5) of the Climate Change Convention (1992) for a definition of greenhouse gases.

¹⁸¹ See e.g., LRTAP Convention (1979) and Protocols thereto.

¹⁸² See also Article 3(3) of the Climate Change Convention (1992).

¹⁸³ See the Kyoto Protocol (1997).

should be read in conjunction with other provisions of the Draft Covenant which are designed to assist all developing countries in attaining sustainable development.¹⁸⁴

ARTICLE 21

SOIL

Parties shall take all appropriate measures to ensure the conservation and where necessary the regeneration of soils for living systems by taking effective measures to prevent large-scale conversion and soil degradation, to combat desertification, to safeguard the processes of organic decomposition and to promote the continuing fertility of soils.

Elements of Article 21 can be derived from existing international instruments at the global level,¹⁸⁵ but soil conservation *per se* is only addressed in regional treaties¹⁸⁶ and the WSSD Plan of Implementation. The latter text calls on States to combat desertification and take measures such as land and resource management, improved agricultural practices and ecosystem conservation to minimize degradation of land.

Protection and restoration of soils are essential to many natural systems and resources, as well as to biological diversity.¹⁸⁷ By the same token, soil conservation is affected by the operation of other natural systems, such as forests.¹⁸⁸ As such, this provision refers to “all living systems”, indicating the importance of soil beyond agricultural or silvicultural needs. In this regard, the need for conservation is stressed, and where this fails or has failed, restoration is prescribed.

¹⁸⁴ E.g., Articles 46-52.

¹⁸⁵ See e.g., FAO Soil Charter (1981), the European Soil Charter (1972) and Articles 10 and 11 of the Desertification Convention (1994), Article 8(3)(b) in the Annex for Africa and Article 4(c) in the Annex for Latin America. See also, generally, Chapters 10 and 14 of Agenda 21.

¹⁸⁶ See Articles II and IV of the African Convention (1968), Article 7 of the ASEAN Convention, and Article 2(d) of the Convention Concerning the Protection of the Alps (1991). A Protocol on soils to the latter Convention was concluded on 16 October 1998.

¹⁸⁷ Recommendation 92(8) of the 1992 Council of Europe Soil Protection Policy, adopted on 18 May 1992, states,

Soils are integral parts of the Earth’s ecosystems and are situated at the interface between the Earth’s surface and the bedrock. They are subdivided into successive layers with specific physical, chemical and biological characteristics and different functions. From the standpoint of history of soil use and from an ecological and environmental point of view, the concept of soil also embraces porous sedimentary rocks and other permeable materials, together with the water which these contain and reserves of underground water. Soils so defined may reach considerable depths and therefore, in some contexts, includes the concept of land.

¹⁸⁸ See e.g., Paragraph 11.10 of Agenda 21. Note in this regard that Article 1(e) of the Desertification Convention refers to “land” as meaning the terrestrial bio-productive system that comprises soil, vegetation, other biota, and the ecological and hydrological processes that operate within the system.

“Conservation” in this provision is a preventive concept, emphasised by the words “prevent”, “combat”, and “safeguard” which follow. Both the structural aspects of soil, indicated in the reference to “erosion”, and the maintenance of soil quality including processes of organic decomposition and continuing fertility, are necessary.

Article 7(2) of the ASEAN Agreement (1986) is particularly instructive in achieving the objective of this provision. It calls for (a) the establishment of “land use policies aimed at avoiding losses of vegetation cover, substantial soil losses, and damages to the structure of the soil”; (b) the control of “erosion, especially as it may affect coastal or freshwater ecosystems, lead to siltation of downstream areas such as lakes or vulnerable ecosystems such as coral reefs, or damage critical habitats, in particular that of endangered or endemic species”; and (c) the rehabilitation of soil “affected by mineral exploitation”. Similarly, the 2003 revised African Convention on Conservation of Nature and Natural Resources provides that the Parties shall take effective measures to prevent land degradation, and to that effect shall develop long-term integrated strategies for the conservation and sustainable management of land resources, including soil, vegetation and related hydrological processes. The measures they take are to aim at the conservation and improvement of the soil, to combat its erosion and misuse as well as the deterioration of its physical, chemical and biological or economic properties.

To ensure soil protection, land-use plans are required based on scientific investigations as well as local knowledge and experience and, in particular, classification and land-use capability. Agricultural practices and agrarian reforms should improve soil conservation and introduce sustainable farming and forestry practices, which ensure long-term productivity of the land, as well as control erosion caused by land misuse and mismanagement which may lead to long-term loss of surface soils and vegetation cover, and control pollution caused by agricultural activities, including aquaculture and animal husbandry. Land tenure policies should facilitate soil conservation measures, *inter alia* by taking into account the rights of local communities.

It is clear from Agenda 21 that the gathering and exchange of data is especially important in the case of soil conservation.¹⁸⁹ Also important in soil conservation are local communities and individuals. As such, Parties should increase public awareness of the issues surrounding soil conservation (Article 50 (Education, Training and Public Awareness)),¹⁹⁰ so that individuals can act sustainably and public participation in decision-making can be meaningful (Article 14(3) (Physical and Legal Persons)).¹⁹¹ Capacity-building of developing countries in all these matters should be a high priority.¹⁹²

¹⁸⁹ See Paragraphs 10.11 and 10.12. Accordingly, Articles 43-45 and 47 of the Draft Covenant are relevant in this context.

¹⁹⁰ See Paragraph 10.9 of Agenda 21 (1992).

¹⁹¹ See Paragraph 10.10 of Agenda 21 (1992).

¹⁹² See Paragraph 10.17 of Agenda 21 (1992).

Implementation of Article 21 is linked to other provisions in the Draft Covenant, such as Article 28 (Pollution), particularly with regard to pollution from agricultural run-off resulting from pesticides and other dangerous chemicals,¹⁹³ and Article 29 (Waste).¹⁹⁴ Given the importance of soil, Parties should consider soil conservation in the establishment of protected areas, especially in the context of complying with Article 24 (Ecosystem Approach) and Article 25 (Biological Diversity).¹⁹⁵

Decision-making regarding soil, and more generally land-use, should be based on environmental and socio-economic considerations,¹⁹⁶ for example, regarding land-tenure rights.¹⁹⁷ The conservation of soils must be an integral consideration in the physical planning of Parties and Article 21 should be read together with Article 41 (Physical Planning). In addition to urban and other land use planning, Parties should consider the effect on soils of other infrastructure planning, such as tourist areas, roads and railways. Further, agricultural and sylvicultural planning must have soil conservation as an objective,¹⁹⁸ in addition to the provision of food security.¹⁹⁹ All of this may require improved coordination between the relevant government agencies.²⁰⁰

ARTICLE 22

WATER

Parties shall take all appropriate measures to maintain and restore the quality of all forms of water, including both salt and fresh water, whether contained in the atmosphere, the oceans, in underground aquifers or watercourses such as lakes and rivers to meet basic human needs and as an essential component of aquatic systems. Parties also shall take all appropriate measures, in particular through integrated conservation and management of water resources and appropriate sanitary measures, to ensure the availability of sufficient quantities of water to satisfy basic human needs and to maintain aquatic systems.

¹⁹³ See e.g., FAO Code on the Distribution and Use of Pesticides and the UNEP London Guidelines for the Exchange of Information on Chemical in International Trade; also see General Regulation of Pesticides and Related Products of Agricultural Use (Ecuador).

¹⁹⁴ See e.g., EC Council Directive 86/278/EEC of 12 June 1986 on the Protection of the Environment, and in particular of the Soil, when Sewage Sludge is used in Agriculture.

¹⁹⁵ Protected areas include areas where human activities are permitted so long as they support the aims of the protected area.

¹⁹⁶ See Paragraph 10.3 of Agenda 21 (1992).

¹⁹⁷ See e.g., Paragraph 14.9(c) of Agenda 21 and Agricultural Land Tenure Act, as amended in 1993 (Bulgaria).

¹⁹⁸ See generally Chapter 14 of Agenda 21 (1992).

¹⁹⁹ See Article 31(b) (Action to Eradicate Poverty) of the Draft Covenant.

²⁰⁰ See Paragraph 10.18 of Agenda 21 (1992).

Water is essential for life on Earth. Article 22 seeks to protect aquatic systems in a comprehensive manner, taking into account the hydrologic cycle by which most water is in constant motion. Because of the interrelationship of the various forms of water, one form of pollution can easily be transformed into another, as is the case when sulphur dioxide in the atmosphere falls to the Earth as acid deposition and pollutes water bodies.²⁰¹

Article 22 is based on a general obligation in international law to protect the quality²⁰² and quantity of water, for anthropocentric (“basic human needs”) and eco-centric (aquatic ecosystems) purposes.²⁰³ The protection of water quantity for eco-centric purposes raises the issue of environmental flows, an emerging concept which can be understood as the water regime provided within a river, or in a wetland or coastal zone (which may be groundwater), to maintain ecosystems and their benefits.²⁰⁴ Various international treaties and other texts relating to water resources have recognized the need to provide water for environmental requirements.²⁰⁵ The concept is also gaining recognition at the national level, as reflected in the laws of South Africa,²⁰⁶ the USA,²⁰⁷ and Australian states.²⁰⁸ The concept of environmental flows is part of the broader concept of adopting an ecosystem approach to water resources management at the river basin level,²⁰⁹ and thus the

²⁰¹ See also Article 17 (Transfer or Transformation of Environmental Harm).

²⁰² The London Protocol on Water and Health (1999) to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (1992) reflects this approach. The Protocol Parties are to pursue aims of access to drinking water and provision of sanitation to everyone and sustainable use of water resources. To achieve these goals, each party is to establish, publish and periodically revise national or local targets on the basis of national or local water-management plans. Article 6 details the contents of the targets, which shall cover the water quality standards, the need for improvement in supply of drinking water and sanitation, performance standards, good management practices, waste water quality, treatment of sewage sludge, and public information procedures. Intermediate or phased targets must be set when a long process of implementation is foreseen for the achievement of a target.

²⁰³ E.g., Articles 192 and 194(1) of UNCLOS (1982) and Articles 2(2)(b) and (d) of the ECE Transboundary Watercourses Convention (1992).

²⁰⁴ This definition is used by IUCN in “Environmental Flows”.

²⁰⁵ See e.g. Arts. 3 and 6 of the Agreement on Cooperation for the Sustainable Development of the Mekong River Basin, 34 ILM 864; Art. 2.1 and 3.1 Convenio sobre Cooperación para la Protección y el Aprovechamiento Sostenible de las Aguas de las Cuencas Hidrográficas Hispano-Portuguesas, Boletín Oficial del Estado Español No. 37, 12.02.00; The Report of the World Commission on Dams, “Dams and Development: A New Framework for Decision-Making” (Earthscan Publications Ltd., London, Nov. 2000).

²⁰⁶ National Water Act, Act 36 of 1998, http://www-dwaf.pmv.gov.za/documents/legislature/nw_act/nwa.pdf.

²⁰⁷ Wild and Scenic Rivers Act, P.L. 90-542, as amended, 16 U.S.C. 1271-1287.

²⁰⁸ 1997 South Australia Water Resources Act.

²⁰⁹ The concept of river basin is seen in the 1969 Brasilia Treaty on the Plate River Basin; see also Directive 2000/60/EC of 23 October 2000 establishing a Framework for Community Action in the Field of Water Policy.

relevant applicable instruments are not only those dealing directly with water resources, but also those concerned with the protection of nature and ecosystems.²¹⁰

“Basic human needs”, should be understood within the context of the Universal Declaration of Human Rights and other human rights instruments,²¹¹ so that special attention is paid to providing sufficient water to sustain human life both for drinking and for producing food. The 1999 Protocol on Water and Health to the Helsinki Watercourses Convention notes from the outset that water is essential to sustain life and that water quality and quantity must be assured to meet basic human needs, “a prerequisite both for improved health and for sustainable development”. The general provisions oblige Parties to take all appropriate measures to prevent, control and reduce water-related disease within a framework of integrated water management systems, aimed at sustainable use of water resources, ambient water quality which does not endanger human health, and protection of water ecosystems. In addition, the WSSD Plan of Implementation contains a pledge to halve, by the year, 2015, the proportion of people who are unable to reach or to afford safe drinking water and the proportion of people who do not have access to basic sanitation. Increasingly in international and constitutional law, access to safe drinking water and water for sanitation is recognized as a human right.²¹² At the regional level, the African Charter on the Rights and Welfare of the Child and the

²¹⁰ In particular see the Convention on Biological Diversity and the Ramsar Convention on Wetlands of International Importance.

²¹¹ See e.g., Article 11 of the Covenant on Economic, Social and Cultural Rights (1966); Vienna Declaration on Human Rights (1993) and African Charter on Human Rights (1981). Article 24, Convention on the Rights of the Child (1989). See also Article 10 of the Watercourses Convention (1997) which provides: “In the absence of agreement or custom to the contrary, no use of an international watercourse enjoys inherent priority over other uses”. Paragraph 2 continues: “In the event of a conflict between uses of an international watercourse, it shall be resolved with reference to articles 5 to 7, with special regard being given to the requirements of vital human needs”. A statement of understanding accompanying the text of the Convention indicates that “in determining ‘vital human needs’, special attention is to be paid to providing sufficient water to sustain human life, including both drinking water and water required for production of food in order to prevent starvation”.

²¹² See Report of the United Nations High Commissioner for Human Rights on the scope and content of the relevant human rights obligations related to equitable access to safe drinking water and sanitation under international human rights instruments, Human Rights Council, A/HRC/6/3 (16 August 2007). The report noted that there is explicit reference to water in human rights treaties: in the Convention on the Rights of the Child (CRC), the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the Convention on the Rights of Persons with Disabilities and International Labour Organization (ILO) Convention No. 161 of 1985 on Occupational Health Services. CESCR General Comment No. 14 on the right to health includes several references to sanitation. Paragraph 4 lists “access to safe and potable water and adequate sanitation” as one of the underlying determinants of health which the right to health embraces, which is repeated in paragraph 11, where the Committee explicitly states that it “interprets the right to health, as defined in article 12.1, as an inclusive right extending not only to timely and appropriate health care but also to the underlying determinants of health, such as access to safe and potable water and adequate sanitation, ...”. Committee on Economic, Social and Cultural Rights, General Comment No. 14: The right to the highest attainable standard of health, UN Doc. E/C.12/2000/4 (2000), at Para. 4.

Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa include specific provisions on access to water. Explicit reference is also found in human rights principles and guidelines adopted by the United Nations and the ILO. They highlight the obligation to provide safe drinking water or sanitation to particular groups, including prisoners, juveniles deprived of their liberty, internally displaced persons (IDPs), workers living in housing provided by their employers and old persons. The FAO Voluntary Guidelines to support the progressive realization of the right to adequate food in the context of national food security also highlight the fact that access to water in sufficient quantity and quality for all is essential for life and health.

International law is well developed concerning atmospheric,²¹³ marine,²¹⁴ and surface fresh water,²¹⁵ all of which are specifically highlighted in this provision. This provision also addresses ground water, the conservation of which is less well developed in international law.²¹⁶

The establishment of specific standards, especially internationally agreed standards, is the approach adopted by all modern instruments (e.g., the Great Lakes and Rhine regimes; also see Article 43 (Environmental Standards and Controls)), and is necessary because of the generality of global norms. This is because it is almost impossible to provide adequate protection for shared water resources or those beyond areas of national jurisdiction through individual State action: first, it is difficult to know the effects of a Party's activity on other States and the global commons; second, the actions of other States may frustrate the efforts of one State acting alone.

²¹³ See e.g., the regional acid-rain regime embodied in the LRTAP Convention (1979) and the Protocols thereto: Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (EMEP) (1984); Reduction of Sulphur Emissions or their Transboundary Fluxes (1985); Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes (1988); Control of Emission of Volatile Organic Compounds or their Transboundary Fluxes (1991); Further Reduction of Sulphur Emissions (1994); Heavy Metals, and Persistent Organic Pollutants (1998); Acidification, Eutrophication and Ground-Level Ozone (1999).

²¹⁴ See e.g., Part XII of UNCLOS (1982), and the 38 regional seas conventions and protocols adopted under UNEP auspices since 1976.

²¹⁵ See e.g., ECE Transboundary Watercourses Convention (1992) and the numerous international (regional and bilateral) river treaties.

²¹⁶ See however, Article 20 of the Watercourses Convention (1997) which calls for an ecosystem approach and Article 2(a) of the same treaty, which defines watercourse to mean a system of surface waters and groundwaters constituting by virtue of their physical relationship a unitary whole and normally flowing into a common terminus. Article 1(b) of the European Criminal Law Convention (1998) also defines water as "all kinds of groundwater and surface water including the water of lakes, rivers, oceans and seas".

ARTICLE 23

ECOSYSTEM SERVICES

Parties shall take appropriate measures to conserve and, where necessary and possible, restore natural systems which support life on Earth in all its diversity, and maintain and restore the ecological functions and services of these systems as an essential basis for sustainable development, including, *inter alia*,

- (a) forests as natural means to control erosion and floods, and for their role in the climate system;**
- (b) freshwater wetlands and floodplains as habitat, recharge areas for groundwater, aquifers, floodwater buffers, filters and oxidizing areas for contaminants;**
- (c) marine ecosystems as essential habitats for support of fisheries, as natural defenses against coastal erosion, as reservoirs of biological diversity, and for their role in maintaining global geochemical cycles including the global climate system; and**
- (d) polar regions as essential to global environmental values and the global climate system.**

Article 23 aims to protect the natural systems necessary to support the global ecosystem,²¹⁷ *i.e.*, the conjunction of processes that make life on Earth possible.²¹⁸ “Natural systems” include the main ecosystems as well as their individual components (physical, chemical, and biological).²¹⁹ The Article applies to all natural systems, including those in relation to areas beyond national jurisdiction,²²⁰ such as the high seas and Antarctica.

²¹⁷ There is no direct precedent for this provision in international law, but see Article 3(a) of the WCED Legal Principles (1986) and, generally, Climate Change Convention (1992).

²¹⁸ This notion is well reflected in “soft law”: see Principle 3 of the Stockholm Declaration (1972), which states, “The capacity of the Earth to produce vital renewable resources must be maintained and, wherever practicable, restored or improved”; Principle 1 of the World Charter for Nature (1982), which calls on nature to be respected and states that “its essential processes shall not be impaired”; and Principle 7 of the Rio Declaration (1992), which calls on States to cooperate to “conserve, protect and restore the health and integrity of the Earth’s ecosystem”.

²¹⁹ Section 2 of the *World Conservation Strategy* (1980) identifies three main “life support” systems: agricultural, forests, and coastal and freshwater. The last mentioned falls within the scope of this Article, while agricultural systems are addressed by other provisions of the Draft Covenant, such as Article 21 (Soil), Article 25 (Biological Diversity) and Article 41 (Physical Planning).

²²⁰ See also Article 65.

While there is some overlap between this provision and Article 25 (Biological Diversity), “life on Earth in all its diversity” should not be confused with biological diversity; the former is broader and covers both quantitative and qualitative aspects. Whereas “biological diversity” is an attribute of life, which is a qualitative concept, this provision requires that the elements of these natural systems be present in sufficient numbers so as to sustain their continued existence. In addition to encompassing human life and health, the present provision also concerns, *inter alia*, production of sufficient quantities of food, fibre, and wood and as well as the capacity of ecosystems sustainably to produce renewable natural resources such as game, fish and timber. It also includes biological diversity.

“Conserve” means to manage human-induced processes and activities which may be damaging to natural systems in such a way that the essential functions of these systems are maintained.²²¹ This obligation must be implemented through application of Part VIII of the Draft Covenant, especially Article 41 (Physical Planning) and Article 42 (Environmental Impact Assessment).²²² Indeed, the main means of implementing this provision is through physical planning, while the purpose of EIAs in this context is to reveal in the physical planning process all potentially adverse effects. “Restore” means the re-establishment of lost or impaired ecological functions.

This paragraph singles out for special attention four major types of natural systems – forests,²²³ freshwater wetlands,²²⁴ marine and coastal ecosystems,²²⁵ and the Polar Regions. According to the

²²¹ This notion is reflected in Article 10(f) of the ASEAN Agreement (1985).

²²² See also Articles 39 (Transboundary Natural Resources) and 44 (Monitoring of Environmental Quality).

²²³ Regarding the sink function of forests, see Article 3(3) of the Climate Change Convention (1992) (“policies and measures should cover ... sinks and reservoirs of greenhouse gases”) and Article 4(d) (“Parties shall ... promote sustainable management ... in the conservation and enhancement, as appropriate, of sinks and reservoirs of greenhouse gases ... including ... forests and oceans as well as other terrestrial, coastal and marine ecosystems”). For the general ecological value of forests, see the Forest Principles (1992) especially Preamble paragraphs (f) (“all types of forests embody complex and unique ecological processes which are the basis for their present and potential capacity to provide resources to satisfy human needs as well as environmental values ...”) and (g) (“forests are essential to economic development and the maintenance of all forms of life”).

²²⁴ The crucial role played by wetlands is apparent in the both the content and the wide subscription to the Ramsar Convention (1971) (see especially the Preamble: “Considering the fundamental ecological function of wetlands as regulators of water regimes” and Article 3: “The Contracting Parties shall formulate and implement their planning so as to promote ... as far as possible the wise use of wetlands in their territory”).

²²⁵ See especially Article 192 of UNCLOS which provides that “States have the obligation to protect and preserve the marine environment”, covering all jurisdictional zones, including the territorial sea and internal waters which form part of the coastal environment. See also Article 193 of UNCLOS (1982); the first preambular paragraph of Antarctic Marine Living Resources Convention (1980): “Recognizing the importance of safeguarding the environment and protecting the integrity of the ecosystem of the seas surrounding Antarctica”; Articles 2 and 3 of the 1991 Madrid Protocol on Environmental Protection to the Antarctic Treaty, and generally Chapter 17 of Agenda 21 (1992).

World Conservation Strategy (1980), forests are particularly important in the upper catchment and source areas of rivers, while wetlands and coastal ecosystems are critical for the maintenance of genetic diversity and for the sustainable harvesting of fishing.²²⁶ The WSSD Plan of Implementation emphasised that oceans, seas, islands and coastal areas form an integrated and essential component of the Earth's ecosystem and are critical for global food security and for sustaining economic prosperity and the well-being of many national economies. Conservation and management of the oceans should be promoted through actions at all levels. The importance of the Polar Regions to the global climate system and to preservation of marine ecosystems is increasingly recognized. The list is not exhaustive, either in terms of major types of natural system falling within the ambit of this provision, or in each of their main functions. Mountain ecosystems, for example, were recognized in the WSSD Plan of Implementation to support particular livelihoods and significant watershed resources, biological diversity and unique flora and fauna. Many are particularly fragile and vulnerable to the adverse effects of climate change and need specific protection.

ARTICLE 24

ECOSYSTEM APPROACH

Parties shall, as appropriate, implement their obligations according to relevant principles of the ecosystem approach.

In particular they shall:

- (a) manage aquatic systems as integrated units covering the full extent of the catchment, recharge and discharge areas; and**
- (b) manage coastal systems as integrated units covering both aquatic and terrestrial components.**

Article 24 is premised on the view that the optimal management of a natural system (*i.e.*, its conservation, maintenance and restoration) occurs when it is treated as a single ecological unit. The paragraph addresses the specific case of where a natural system crosses administrative divisions, both geographic and substantive, within a Party. Note that Article 39(a) (Transboundary Natural Resources) addresses natural systems that cross national boundaries. "Jurisdiction" covers terrestrial, marine and atmospheric areas. This holistic approach can be undermined by administrative and other jurisdictional divisions covering different aspects of the same system. Accordingly, this provision requires the coordination between different agencies or entities within a Party so that managing these systems can be subject to integrated and cross-sectoral strategies, plans, programmes, and policies. *Subparagraphs (a) and (b)* identify the scope of two significant natural systems: aquatic²²⁷ and coastal.²²⁸ Article 24 of the Watercourses Convention defines management to mean

²²⁶ See section 5.

²²⁷ *Cf.* Articles 66, 207 and 212 of UNCLOS (1982) and Paragraph 18.9 of Agenda 21 (1992).

²²⁸ *Cf.* Articles 66, 207 and 212 of UNCLOS (1982) and Paragraph 17.5 of Agenda 21 (1992).

planning the sustainable development of an international watercourse throughout its catchment area and providing for the implementation of any plans adopted and otherwise promoting the rational and optimal utilization, protection and control of the watercourse. The Jakarta Mandate (Decision II/10), adopted by the Conference of the Parties of the Convention on Biological Diversity, calls for the establishment and reinforcement of arrangements for integrated management of marine and coastal ecosystems and the integration of plans and strategies for such areas. In 1998, the COP approved a global work plan specifically recommending use of the precautionary approach to guide all activities affecting marine and coastal biological diversity

ARTICLE 25

BIOLOGICAL DIVERSITY

1. **Parties shall take all appropriate measures to conserve biological diversity, including species diversity, genetic diversity within species, and ecosystem diversity, especially through *in situ* conservation based on the concept of an ecological network. To this end, Parties shall:**
 - (a) **integrate conservation and sustainable use of biological diversity and its components into their physical planning systems, by ecosystem management;**
 - (b) **establish a system of protected areas, where appropriate with buffer zones and interconnected corridors; and**
 - (c) **prohibit the taking or destruction of endangered species, protect their habitats, and where necessary develop and apply recovery or restoration plans for such species.**

2. **Parties shall regulate or manage biological resources with a view to ensuring their conservation, sustainable use, and where necessary and possible, restoration. To this end, based on the ecosystem approach, Parties shall:**
 - (a) **develop and implement conservation and management plans for harvested biological resources;**
 - (b) **prevent a decrease in the quantity of harvested populations of animals and plants below the level necessary to ensure stable recruitment;**
 - (c) **safeguard or restore habitats essential to the continued existence of the species or populations concerned;**
 - (d) **maintain or restore ecological relationships between harvested and dependent or associated species or populations; and**

(e) prevent or minimize incidental taking of non-target species and prohibit indiscriminate means of taking.

Article 25 deals with conservation of biological diversity (Paragraph 1) and sustainable use of biological resources (Paragraph 2), which are interlinked. The importance of biological diversity, for its intrinsic value and for the benefit of future generations, is now widely recognized and led to adoption at Rio de Janeiro of the Convention on Biological Diversity (1992).²²⁹ “Biological diversity” should be understood in the same broad sense as in that Convention.²³⁰

Paragraph 1 indicates that the preferred method of conserving biological diversity is through *in situ* conservation.²³¹ *Ex situ* (off site) conservation, such as botanic gardens or zoos, should occur when *in situ* conservation cannot be achieved. As provided in Article 9 of the Convention on Biological Diversity, these efforts should complement *in situ* efforts. The paragraph lists three techniques to implement the obligation to conserve.²³² This is not an exhaustive list, but it is mandatory; all three types of measures must be used, because they are not alternatives.

Subparagraph (a) requires that *in situ* conservation be incorporated into the physical planning system, through appropriate zoning and restructuring, and by generally taking it into consideration when allocating land uses. This provision is to be read in conjunction with Article 41 (Physical Planning), especially Article 41(3).

²²⁹ Note that the Preamble of the Convention on Biological Diversity (1992) recognizes the conservation of biological diversity as a common concern of humankind (see also Article 3 (Common Concern of Humanity) of the Draft Covenant).

²³⁰ Article 2 of the Convention on Biological Diversity (1992) provides the following definition:

...the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

²³¹ This conforms to Article 2 of the Convention on Biological Diversity (1992) which defines *in situ* conservation as “conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings”. For domesticated or cultivated species this means in the surroundings “where they have developed their distinctive properties”. See also Article 5 of the International Treaty on Plant Genetic Resources for Food and Agriculture (2001).

²³² The main basis of this provision is the Convention on Biological Diversity (1992), which crystallizes earlier law, but see also the many precursors which have dealt with the conservation of species and ecosystems for the sake of conservation, e.g., Paris Birds Convention (1902), Convention on the Preservation of Fauna and Flora (1933), the Western Hemisphere Convention (1940), African Convention (1968), ASEAN Agreement (1985) and others. In addition, four global sectoral treaties exist: the Ramsar Convention (1971) (wetlands especially as waterfowl habitat), World Heritage Convention (1972) (outstanding areas), CITES (1973) (trade in endangered species), Convention on Migratory Species (1979) (migratory species). Finally, the national legislation of many countries provides for protection of endangered species (e.g., Endangered Species Act (USA)) and for protected areas (e.g., National Integrated Protected Area System Law (Philippines)). See also important “soft law” instruments, such as Principle 2 of the Stockholm Declaration (1972); Principles 2 and 3 of the World Charter for Nature (1982).

In *subparagraph (b)*, “protected areas” are those areas specifically managed for the *in situ* conservation of biological diversity and where human activities are restricted to the extent necessary to achieve this end. There are many kinds of protected areas and Parties should use their legal systems to afford the flexibility needed to design appropriate ones. The relevant consideration is their effectiveness in conserving biological diversity. “Buffer zones” are special areas surrounding protected areas, designed to preserve them from harmful outside influences. Activities that do not have adverse affects on the protected area may be allowed to continue. “Interconnected corridors”, created through land-use regulations or private contracts and other incentives, are necessary to allow genetic exchanges to occur between protected areas. Scientific research has shown that if gene flow is impeded, protected areas will soon lose a part of their biological diversity. Corridors can be linear, such as along riverbanks if natural vegetation is maintained, or may consist of stepping-stones, such as strings or patches of natural vegetation from which animals (and plants) can move one to another.

In *subparagraph (c)*, the “taking” of endangered species includes the direct targeted taking as well as the incidental taking of non-targeted species, such as the unintended capture of marine mammals and sea turtles in drift nets. “Destruction” should be understood as killing, whether deliberate or not, which might result from an otherwise authorized or legitimate activity, such as land clearing. Destruction must be limited if endangered species are to be saved. The provision also contemplates the protection of habitats, which requires controlling both the factors causing habitat destruction and those modifications which make the habitat unsuitable for the species concerned. “Recovery plans” are those developed by a conservation authority aimed at eliminating threats to an endangered species. Recovery plans may be binding or non-binding.

Paragraph 2 deals with the conservation and sustainable use of biological resources, concepts which have deep roots in international environmental law.²³³ “Biological resources” means the same as in the Convention on Biological Diversity, and includes all biotic components of ecosystems with actual or potential use or value for humanity.²³⁴ In practice this encompasses any harvested species or population, including game, fish, forest products, and medicinal plants. “Sustainable use” also has the same meaning as in the Convention on Biological Diversity,²³⁵ and entails several

²³³ See e.g., Articles 8(c) and 10 of the Convention on Biological Diversity (1992). See also Articles 61(2), 117, 119(1) of UNCLOS (1982); and Article 6 of the International Treaty on Plant Genetic Resources for Food and Agriculture (2001). Before these major conventions, taking regulations were required under other conservation treaties, e.g., African Convention (1968), Berne Convention on European Wildlife (1979), CITES (1973), Whaling Convention (1946) and many additional regional treaties. Among these earlier agreements, however, the Antarctic Marine Living Resources Convention (1980) was unique in its concentration on habitat preservation. See too UNGA Resolution 44/225 (1989) and the South Pacific Driftnets Convention (1989), which restrict the use of driftnets in fishing. Note as well that sustainable use is referred to in Principle 4 of the World Charter for Nature (1982), which prohibits species use likely to endanger the integrity of a coexisting species. In addition, regulation of taking is embodied in the domestic legislation of most countries.

²³⁴ Article 2.

²³⁵ Article 2 defines sustainable use as the use of components of biological diversity in a way and at a rate that does not lead to a long term decline in biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

important considerations: (i) taking should be at a level that does not lead to long-term decline; (ii) methods of taking may not affect other factors essential to the species concerned; and (iii) species other than target species should not be threatened. This provision requires both regulation, being the imposition of restrictions on taking such as closed seasons, prohibited taking methods, quotas, etc., and management, which is a broader control of factors other than taking, e.g., pollution or habitat destruction. The obligation to regulate or manage applies to all biological resources, whether terrestrial, freshwater or marine, and wherever located.²³⁶

This paragraph lists, in a non-exhaustive but mandatory manner, five specific measures that States must take to implement their obligations. The primary obligation is set out in *subparagraph (a)* which calls for the development and implementation of conservation and management plans. These plans should address all relevant factors that may affect the conservation and sustainable use of the resource concerned. The measure outlined in *subparagraph (b)*, preventing a decrease in harvested populations below that necessary for stable recruitment, should be the primary objective of the plan referred to in subparagraph (a). The third measure, *subparagraph (c)*, places emphasis on an essential, often neglected, aspect of the conservation of biological resources, namely the maintenance and conservation of habitats. Indeed, if critical habitats are not safeguarded, taking restrictions will be insufficient to save a resource. *Subparagraphs (d)* and *(e)* address problems beyond the target species, by seeking to protect dependent²³⁷ and associated²³⁸ species, particularly important in the context of fishing,²³⁹ and by seeking to prevent incidental taking.²⁴⁰

²³⁶ See Article 5 of the Straddling Stocks Agreement, which provides that States Parties must protect biodiversity in the marine environment taking into account the interests of artisanal and subsistence fishers and by the use of selective environmentally safe and cost-effective fishing gear and techniques. See also Article 39 (Transboundary Natural Resources) and Article 65 (Areas Beyond the Limits of National Jurisdiction).

²³⁷ “Dependent species” mean species ecologically linked to the target species, e.g., predators or prey. If the target species is overexploited, predators with less food available may also decline; on the other hand prey species of target species may have a population boom. In both cases there may occur a disruption of the ecological balance. To avoid this it may be necessary to exploit target species below the maximum sustainable yield level.

²³⁸ “Associated species” may not have ecological relationships with target species but are present at the same place and are taken incidentally with target species. If the taking level is too high, non-target species will decline. Measures must, therefore, be taken to limit incidental take, e.g., by changes in design of fishing gear.

²³⁹ “Incidental” taking is meant to cover species neither dependent nor associated with the target species. Indiscriminate means of taking, a major cause of incidental catches, include, for instance, the use of nets for the taking of game birds or of drift nets in the sea where many non-target species may get caught. This is particularly serious if these are endangered species.

²⁴⁰ E.g., associated and dependent species are referred to in UNCLOS (1982), where the obligation is to maintain or restore populations of such species above levels at which their reproduction may become seriously impaired (by implication in Article 61(2) for exclusive economic zones (EEZ) and expressly in Article 119(1) for the high seas). See also the Antarctic Marine Living Resources Convention (1980) (Article II(2)(b)) which requires ecological relationships between harvested, dependent and related populations to be maintained.

ARTICLE 26

CULTURAL AND NATURAL HERITAGE

Parties shall take all appropriate measures to protect cultural and natural heritage including measures:

- (a) to conserve or rehabilitate, *in situ*, cultural and natural monuments, and areas, including landscapes, of outstanding scientific, cultural, spiritual, or aesthetic significance;**
- (b) to prevent all measures and acts which are likely to harm or threaten such monuments or areas; and**
- (c) to preserve, *ex situ*, heritage at risk of loss**

The main object of Article 26 is to protect monuments and areas of outstanding importance for geological, physiographical, paleontological or other scientific reasons, or for aesthetic purposes. Conserving such monuments and areas is important on account of their outstanding and irreplaceable nature, which is in the interest of humanity as a whole.²⁴¹ Major cultural monuments and areas, including ancient cities and cultural landscapes, as well as natural areas that are important because of their scenery or scientific value are included. Some of these areas may be significant for their biological diversity. The 2001 UNESCO Convention on the Protection of the Underwater Cultural Heritage extends these considerations to the marine environment. The annexed rules call for an environmental policy to ensure that the seabed and marine life are not unduly disturbed when measures or activities are taken with respect to underwater cultural heritage.

The central obligation outlined in this provision is for each Party to conserve such monuments and areas as may exist on its territory,²⁴² as well as in Antarctica.²⁴³ This entails preventing deliberate action such as pollution that may harm or threaten these objects. In addition, activities under the control of a Party should not be exercised so as to harm such objects in the territory of

²⁴¹ See also Article 3 (Common Concern of Humanity) of the Draft Covenant.

²⁴² The primary precedent in international law is provided by the World Heritage Convention (1972). The Preamble says that parts of the cultural or natural heritage are of outstanding interest and, therefore, need to be preserved as part of the World Heritage of Mankind as a whole. Article 4 recognizes the duty of each Party to ensure the identification, protection, conservation, preservation and transmission for future generations of such World Heritage situated on its territory. Under Article 6 each Party undertakes not to take any deliberate measure which might damage directly or indirectly cultural or natural heritage situated on the territory of other Parties.

²⁴³ See Antarctic Treaty, generally, and Article 2 of the 1991 Madrid Protocol to the Antarctic Treaty which states that “the Parties commit themselves to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems and hereby designate Antarctica as a natural reserve, devoted to peace and science”.

other Parties.²⁴⁴ Implementation of this provision might involve international cooperation, such as the provision of financial and technical assistance. Notably, this Article applies both in times of peace as well as armed conflict.²⁴⁵

This provision also draws inspiration from the UN Declaration on the Rights of Indigenous Peoples,²⁴⁶ but its scope is by no means limited to such groups. Article 11 of the Declaration specifies the right of indigenous peoples to maintain, protect and develop the past, present and future manifestations of their cultures, including archaeological and historical sites. Article 12 adds that indigenous peoples have the right to maintain, protect, and have access in privacy to their religious and cultural sites.

PART V. OBLIGATIONS RELATING TO PROCESSES AND ACTIVITIES

Environmental harm is caused by processes and activities that involve or are generated by the use of substances and technologies. Processes are the physical, chemical or biological phenomena that directly cause the harm, while activities are the human actions that involve the processes.²⁴⁷ While different activities may generate the same process, using different substances and technologies,²⁴⁸ the same activity may result in different processes.²⁴⁹

Special attention must be placed on processes although prevention and control of environmental harm requires control of both processes and activities. Each process must be identified, monitored, regulated, and managed on the basis of all substances, technologies and activities which generate it. When the same substance, technology, or activity is the origin of different processes, and has been identified as such, it must be monitored, regulated and managed with regard to all processes concerned.

²⁴⁴ See e.g., Article 6(3) of the World Heritage Convention (1972). This obligation refers largely to trans-boundary harm, but also to the activities of transnational corporations and the provision of foreign aid.

²⁴⁵ See also Article 36(3) (Military and Hostile Activities) of the Draft Covenant; the Hague Cultural Property Convention (1954) and the Additional Protocol I (1977).

²⁴⁶ See United Nations Declaration on the Rights of Indigenous Peoples, UN Doc. A/61/L.67/Annex (Sept. 12, 2007).

²⁴⁷ E.g., the depletion of ozone layer is caused by a chemical reaction which breaks up the ozone molecules (“process”) due to presence of certain substances (CFC gases) in upper atmosphere. These substances are used in certain technological applications (“activities”) such refrigerators, air conditioners, fire extinguishers, aerosol sprayers, etc. Another example is the use of driftnets: the “process” is the excess mortality of certain species through incidental taking in these nets whereas the “activity” is high seas fishing.

²⁴⁸ E.g., climate change is the process caused by emission of different greenhouse gases resulting from very different technologies and activities, including power production and deforestation.

²⁴⁹ E.g., activities releasing CFCs into the atmosphere, which affect both climate change and the ozone layer.

In Part V, Article 27 (Prevention of Harm) lays down the general rule, while Article 28 (Pollution), Article 29 (Waste), and Article 30 (Introduction of Alien or Modified Organisms) set forth more specific rules with regard to certain well-identified activities. The ability of each State to comply with the provisions herein will be dependent on its individual capacities and on the provision of assistance to developing countries.²⁵⁰ Although each of these provisions addresses individual processes and activities, they should each be applied in accordance with Article 17 (Transfer or Transformation of Environmental Harm) to ensure that they are addressed in an integrated manner. The focus of the obligations in this Part is on intervention at an early stage to prevent environmental harm from occurring.

ARTICLE 27

PREVENTION OF HARM

Parties shall identify and evaluate substances, technologies, processes and categories of activities that have or are likely to have significant adverse effects on the environment or public health. They shall provide a system of authorization and survey, regulate or manage them with a view to preventing any significant harm.

Article 27 establishes the basis upon which action can be taken to prevent environmental risks caused by damaging substances, technologies, processes and activities. It requires their identification and evaluation, and mandates the taking of measures to prevent significant environmental harm.²⁵¹ The process of identification and evaluation is an active one, so that Parties should be constantly initiating such activities. The substance of this provision is broad; it includes both direct and indirect causes of environmental harm. Many rules of international law already exist to control these causes.²⁵² Concern for public health emerged in the Stockholm Declaration. Principle 7 calls on States “to take all possible steps to prevent pollution of the seas by substances that are liable to create hazards to human health ...”.

²⁵⁰ See also Part VIII (Implementation and Cooperation) of the Draft Covenant.

²⁵¹ See also Articles 6 (Prevention), 7 (Precaution), and 13 (States) of the Draft Covenant.

²⁵² For the regulation and management of processes, see the Vienna Convention on the Ozone Layer (1985) and its Montreal Protocol (1987), the first completely process-oriented international instruments establishing an international management system. The most explicit obligation in this regard is contained in Articles 7(c) and 8(b) of the Convention on Biological Diversity (1992). Also of note are the Climate Change Convention (1992) and the Desertification Convention (1994), both of whose objective is the management of all causes of the relevant processes. See also Article 7 of the Cairo Guidelines on Hazardous Waste (1987) (concerning the promotion of low-waste technologies and recycling), and Principle 11 of the World Charter for Nature (1982) which states that “activities which might have an impact on nature shall be controlled, and the best available technologies that minimize significant risks to nature or other adverse effects shall be used”. In contrast, Article 27 of the Watercourses Convention (1997) provides that watercourse States shall, individually and, where appropriate, jointly take all

It is to be expected that further causes of environmental harm will continue to be discovered, and as such this provision is forward looking, by requiring the surveillance, regulation, and management of processes and activities that may cause significant environmental harm. The Article places a duty on Parties to work toward such discovery and to assess risks associated with human activities.

While no specific rules are provided about methods to be used to identify or evaluate, the former can be achieved through comprehensive EIAs (Article 42 (Environmental Impact Assessment)) and the latter through application of Article 44 (Monitoring of Environmental Quality). Regulation and management will occur as a result of adopting and implementing standards (Article 43 (Environmental Standards and Controls)), but the ideal method would be through the elaboration of process management plans.²⁵³

ARTICLE 28

POLLUTION

Parties shall take, individually or jointly, all appropriate measures to prevent, reduce, control, and eliminate, to the fullest extent possible, detrimental changes in the environment from all forms of pollution. For this purpose, they shall use the best environmental practices and best available technologies at their disposal and shall endeavour to harmonize their policies. In particular, Parties shall, to the extent possible, eliminate pollution that is toxic, hazardous, or bioaccumulative.

The purpose of Article 28 is to prevent, reduce, and control pollution from all sources. It reflects existing conventional and customary international law²⁵⁴ and is modelled on Article 194(1) of UNCLOS (1982), making it applicable to all parts of the environment. The provision applies generally, whether or not the pollution is of a transboundary nature, although in the latter case multi-lateral cooperation is urged. For example, this provision would encourage Parties to cooperate in further strengthening the relatively underdeveloped legal regime pertaining to land-based sources of marine pollution. This provision should be read in conjunction with Article 43 (Environmental Standards and Controls). The International Tribunal for the Law of the Sea, in the MOX case,

appropriate measures to prevent or mitigate conditions that may be harmful to other watercourse States whether resulting from natural causes or human conduct, such as flood or ice conditions, waterborne diseases, siltation, erosion, salt-water intrusion, drought or desertification.

²⁵³ E.g., The Australian Federal Endangered Species Act of 1992, for instance, provides for the listing of processes threatening endangered species and for the development of Threat Abatement plans. These plans are binding on federal authorities and may be made the subject of contracts between the federal government and Australian States or private persons.

²⁵⁴ The international legal precedents for pollution control are numerous: e.g., MARPOL Convention (1973), London Convention (1972), LRTAP Convention (1979), Part XII of UNCLOS (1982), Vienna Convention on the Ozone Layer (1985), Climate Change Convention (1992), US-Canada Air Quality Agreement (1991).

considered the duty to cooperate in exchanging information concerning environmental risks a “fundamental principle in the prevention of pollution of the marine environment” under UNCLOS and general international law.

“Pollution” should be understood as:

the introduction by man, directly or indirectly, of substances or energy into the environment resulting or is likely to result in such deleterious effects as harm to living resources, ecosystems, and other forms of life, hazards to human health, and impairment or interference with amenities and other legitimate uses of natural resources.²⁵⁵

The wording in Article 28 is important; the emphasis is on Prevention (see Article 6). Reduction and control are supplementary to the duty to prevent and should only be resorted to if prevention is not possible. The comprehensive nature of this obligation will involve the use of planning procedures, such as EIAs (Article 42 (Environmental Impact Assessment)) and licensing, as well as consistent monitoring of the environment (Article 44 (Monitoring of Environmental Quality)). There are many legal techniques in use for regulating pollution; a common international method is to categorize substances by degree of toxicity, so that the discharge of those at the upper end is completely prohibited, while those less toxic are either permitted or permitted in certain circumstances.²⁵⁶ Environmental quality,²⁵⁷ product²⁵⁸ and technological²⁵⁹ standards can also be effective. “Of any part of the environment” from whatever source requires Parties to consider the effects of pollution on all environmental media, suggesting that an integrated pollution control strategy is the most effective (see Article 17 (Transfer or Transformation of Environmental Harm)). The specific listing of radioactive, toxic and other hazardous substances is intended to highlight those forms of pollution which are particularly harmful, and the list is not meant to be exhaustive.

The standard set by this provision is “best practicable means at their disposal”, which is intended to introduce into this obligation a high level of protection based on the customary international law concept of “due diligence”. The result is that individual national capacities are to be taken into account in determining the precise application of this provision in each context.

²⁵⁵ This is adapted from Article 1(4) of UNCLOS (1982) and Part A (Annex) of the OECD Council Recommendation on Transfrontier Pollution (1974). Article 23 of the Watercourses Convention similarly defines pollution and includes a duty to prevent, reduce and control pollution that may cause significant harm to other water course States or their environment, including harm to human health or safety, to the use of the waters for any beneficial purpose or to the living resources of the watercourse.

²⁵⁶ E.g., London Convention (1972), Article IV and Annexes I and II.

²⁵⁷ See e.g., EC Directives such as the Directive on Pollution Caused by Certain Dangerous Substances Discharged into the Aquatic Environment of the Community (1976), Directive on Air Quality Limit Values and Guide Values for Sulphur Dioxide and Suspended Particulates (1980), Directive on a Limit Value for Lead in the Air (1982).

²⁵⁸ E.g., European Detergent Agreement (1968).

²⁵⁹ See e.g., MARPOL Convention (1973) and SOLAS Convention (1974), as amended.

The final element, harmonization of policies, is the natural outcome of international cooperation.²⁶⁰ It is intended to encourage Parties to reach international agreement on the most appropriate means for tackling environmental problems. Doing so will increase transparency during the regulatory process, allowing all relevant actors to participate effectively, and can help eliminate non-tariff barriers to trade. By not making this obligation absolute, the Draft Covenant affirms that ecological differences between States exist, necessitating higher or different standard-setting than that set internationally. However, harmonization should attempt to take a high level of environmental protection as its base²⁶¹

ARTICLE 29

WASTE

- 1. Parties shall ensure that the generation of waste is prevented or minimized, particularly through the use of non-waste technology.**
- 2. Waste shall be reused, recovered, and recycled.**
- 3. Waste which cannot be reused, recovered, or recycled, shall be disposed of in an environmentally sound manner, to the fullest extent possible at source.**
- 4. Under no circumstances shall a Party export or permit the export of waste where it has reason to believe that such waste will not be managed in an environmentally sound manner or to a place where waste import has been banned. If a transboundary movement cannot be completed in compliance with these requirements, the exporting Party shall ensure that such waste is taken back if alternative environmentally sound arrangements cannot be made.**

Article 29 concerns a major cause of environmental harm, namely, the generation and improper disposal of waste. Waste is a by-product of modern life, but regulatory control can minimize the problems it causes. This provision also recognizes that wastes are a matter of concern at both the national and international levels.²⁶² Wastes should be thought of as anything that might be disposed of in the natural environment, whether by its nature or as a requirement of national law.²⁶³ It is a form of pollution, and therefore should be read together with Article 28 (Pollution).

²⁶⁰ See Article 23 of the Watercourses Convention.

²⁶¹ See e.g., Article 191(2) of the Lisbon Treaty on the Functioning of the European Union (2009).

²⁶² E.g., there are several precedents at the international level concerning dumping of wastes at sea, see London Convention (1972), Oslo Marine Pollution Convention (1972), and Article 210 of UNCLOS (1982).

²⁶³ This definition is adapted from Article 2(1) of the Basel Convention (1989). See also Article 1 of the Cairo Guidelines on Hazardous Wastes (1987).

Paragraph 1 expresses the primary obligation on Parties to deal with wastes at the national level. Applying the principles of Prevention (Article 6) and Precaution (Article 7), the first obligation is to minimize waste generation.²⁶⁴ This requirement should be realized partly through compliance with Article 32 (Consumption and Production Patterns), which calls on Parties to encourage recycling and reuse as far as possible and to promote product designs that as far as possible eliminate waste.²⁶⁵ In addition, the Article also contemplates use of “clean” technology, which can be achieved through technology and technology-forcing emissions standards,²⁶⁶ and a “cradle-to-grave” approach to regulation.²⁶⁷ In this regard, both traditional command-and-control mechanisms as well as economic incentives (Article 16(2)(b) (Integrated Policies)) will be appropriate.

Paragraph 2 requires that once waste is generated, all efforts should be made to dispose of it at source through recovery, recycling and reuse. The purpose of this provision, a common feature of international law, is to reinforce and encourage the minimal generation of waste.²⁶⁸ The **third Paragraph** calls for disposal to occur in an environmentally sound manner. This requires that disposal occurs in a manner that protects human health and the environment from the adverse effects which could arise from such disposal.²⁶⁹

Compliance with this provision will depend on the particular capabilities of each State. Reference should therefore be made to Articles 47 (Development and Transfer of Technology) and 52 (International Financial Resources), which should assist developing countries to meet these obligations.

Paragraph 4 of this provision, addressing transboundary movement, is activated when disposal at source is not possible. It applies to the dangerous wastes.

²⁶⁴ See Paragraph 21.10 of Agenda 21.

²⁶⁵ These have become standard features in the national legislation of many countries. One of the most noteworthy attempts is the German Packaging Regulation (1991), which requires the seller to either take back the packaging of any items sold or to establish private sector methods of collecting this waste; see also EC efforts.

²⁶⁶ See, generally, US Clean Water and Clean Air Acts.

²⁶⁷ See Article 17 (Transfer or Transformation of Environmental Harm).

²⁶⁸ See e.g., Article 4(2)(a) of the Basel Convention (1989); Article 3(c) of Bamako Convention (1991); Article 7 of the Cairo Guidelines on Hazardous Wastes (1987); Principle 3 of the Annex to the OECD Recommendation on Waste Management (1976). See also Case C-2/90 *EC Commission v. Belgium*, where the principle of “proximity” was affirmed.

²⁶⁹ See Article 2(8) of the Basel Convention (1989) and Article 1(10) of the Bamako Convention (1991). See also Article 12 of the Cairo Guidelines on Hazardous Wastes (1987). Article 1 of the Forum Island Hazardous Waste Convention (1995) defines environmentally sound management to mean “taking all practicable steps to ensure that hazardous wastes are managed in a manner which will protect human health and the environment against the adverse effects which may result from such wastes”. See also Covenant Article 38.

In concert with other international instruments, *Paragraph 4* requires exporting Parties to prohibit export where the Party has reason to believe that hazardous wastes will not be handled in an environmentally sound manner. This requirement imposes implicit obligations on both the State of export and that of import. The exporting Party must be in regular communication with the authorities of the importing State about management and disposal of hazardous wastes, including the state of available facilities and the level of technology.²⁷⁰ Second, the importing Party must establish a system of monitoring the management and disposal of hazardous waste under its jurisdiction. Finally, so as to ensure the environmentally sound management or disposal of such wastes, Paragraph 4 places the responsibility on the exporting Party to either make alternative arrangements or re-import the wastes if the transboundary transaction cannot be completed in accordance with the arrangements made pursuant to this provision.²⁷¹ The duty to re-import also applies to the case of wastes which have been subject to transboundary movement in violation of the terms of this provision.²⁷²

ARTICLE 30

INTRODUCTION OF ALIEN OR MODIFIED ORGANISMS

- 1. Parties shall prohibit the intentional introduction into the environment of alien or modified organisms which may have adverse effects on other organisms or the environment. They shall also take the appropriate measures to prevent invasion, accidental introduction or escape of such organisms.**
- 2. Parties shall assess and as appropriate, prevent or effectively manage the risks of adverse effects on other organisms or the environment associated with the development, use and release of modified organisms resulting from biotechnologies.**
- 3. Parties shall take all appropriate measures to control and, to the extent possible, eradicate alien or modified organisms when such organisms have or are likely to have a significant adverse effect on other organisms or the environment.**
- 4. Parties shall take all appropriate measures to contain the natural reservoirs of zoonotic diseases, in order to prevent their transmission between species.**

²⁷⁰ See Article 6(3)(b) of the Basel Convention (1989); Articles 6(8) and 10(2)(a) of the Bamako Convention (1991); and Article 26 of the Cairo Guidelines on Hazardous Wastes (1987).

²⁷¹ Article 8 of Basel Convention (1989); Article 27 of the Cairo Guidelines on Hazardous Wastes (1987).

²⁷² Article 9(2) of Basel Convention (1989).

Article 30 addresses the risks to humans, biological diversity, and economic interests associated with the introduction of alien or modified species.²⁷³ Introductions have caused extinctions and are currently threatening many species by predation, competition, hybridization with native forms, transmission of diseases and parasites. This impacts not only the particular affected species, but others and can cause major economic damage.²⁷⁴ Should a harmful introduction spread or be likely to spread to another Party or to areas beyond national jurisdiction, the provisions of the Draft Covenant relating to transboundary issues apply (see Part VII). It should be noted that the precise extent of the risks associated with modified organisms is still relatively unknown, as there are few records of damage from this new technology. However, since the existence of the risk is widely accepted, this is an appropriate instance to adopt a precautionary approach (Article 7 (Precaution)).

Paragraph 1 contains an absolute prohibition against intentional introductions which are likely to be harmful to other organisms or the environment. It reflects, *inter alia*, Art. 22 of the UN Convention on the Law of the Non-Navigational Uses of International Watercourses which requires watercourse States to “take all measures necessary to prevent the introduction of species, alien or new, into an international watercourse which may have effects detrimental to the ecosystem of the watercourse resulting in significant harm to other watercourse States”.

Paragraph 1 also calls on Parties to control the risk of accidental introductions. The FAO Council approved in November 2000 the Agreement for the Establishment of a Commission for Controlling the Desert Locust in the Western Region.²⁷⁵ More generally, Decision VI/23 of the Sixth Conference of the Parties to the Convention on Biological Diversity urges Parties, other governments and relevant organizations to promote and implement the Guiding Principles it drafted to prevent the introduction or mitigate the impact of invasive or alien species. Resolution VIII/18 adopted at the Eighth Conference of the Parties to the Ramsar Convention in November 2002, calls invasive species a “major threat to the ecological character of wetlands worldwide”. Noting the link to global climate change, which brings with it movement of species into new areas, the Resolution urges Parties to address the problem of invasive species in wetland ecosystems “in a decisive and

²⁷³ See e.g., the Convention on Biological Diversity (1992), especially Article 8(h) for alien species and Article 8(g) for modified organisms; Article 196 of UNCLOS (1982) for alien or new species: “States shall take all measures necessary to prevent, reduce and control... the intentional or accidental introduction of species, alien or new, to a particular part of the marine environment, which may cause significant and harmful changes thereto” (“new” species are to be understood in this context as modified organisms); and Article 4 of Annex II to the 1991 Madrid Protocol to Antarctic Treaty (containing very strict provisions on introductions). Introductions into the marine environment are also the subject of a code of practice by the International Council in Exploration of the Sea (ICES) which in its 1994 version also covers genetically modified organisms. Introduction of alien and new species is also governed by Article 22 of the Watercourses Convention (1997).

²⁷⁴ One notable example is the introduction (presumably through ship ballast waters) of the zebra mussel from eastern Europe into American Great Lakes (damage caused by widespread colonization of water pipes and other structures).

²⁷⁵ Resolution No. 1/119.

holistic manner” including undertaking risk assessments of alien species which may pose a threat to the ecological character of wetlands.

“Alien organism” means any organism unmodified by human action which does not occur naturally in a particular ecosystem. This is not limited to species but can also be sub-species or genetically distinct populations belonging to any taxonomic group (fauna, flora, micro-organisms). “Modified organism” means any organism which has been genetically modified by human action, whether by biotechnology, selective breeding or otherwise. The reference to “other organisms” that may be affected should be understood to include humans, other domesticated or cultivated organisms, and wild organisms. The reference to the “environment” is intended to be broad and includes effects on human activities and interests. “Introduction into the environment” is any introduction at any place other than a confined environment from which the organisms cannot escape.²⁷⁶ In taking action to control the risk of accidental introductions, Parties should take a broad view of “escapes” so as to include escape from captivity and inadvertent importation by ships, aircrafts or other means.²⁷⁷

Paragraph 2 specifically addresses modified organisms resulting from biotechnologies. This is intended to cover the development and use of such organisms in a confined environment as well as release into the general environment. Regulatory techniques to meet the objectives of this provision include classification of modified organisms, prior assessment of environmental and health risks, prior notification and consent procedures (for packaging, labelling, handling and use), public consultation, emergency planning, and information exchange.²⁷⁸

Paragraph 3 addresses the consequences of unwanted and potentially harmful introductions of alien or modified organisms, requiring that such organisms be eradicated, or if eradication is impossible, controlled. “Control” should involve limiting the increase in numbers and spread of the organism by appropriate elimination, removal, or other measures.²⁷⁹ It is important to note,

²⁷⁶ E.g., this would also apply to introductions of an organism within the country of origin but into an area in which it does not occur naturally.

²⁷⁷ E.g., ballast waters have now been identified as a major pathway for such organisms. Introductions through ballast waters and sediments carried by ships are now in the forefront of international concern (see IMO Resolution No. 774 (18) (1993) which lays down guidelines on the matter).

²⁷⁸ See EC Directives 20/219/EEC of 23 April 1990 on the Contained Use of Genetically Modified Micro Organisms and 90/220/EEC of 23 April 1990 on the Deliberate Release into the Environment of Genetically Modified Organisms; Decision 2002/812/EC establishing pursuant to Directive 2001/18/EC the Summary Information Format Relating to the Placing on the Market of Genetically Modified Organisms as or in Products; Decision 2002/813/EC establishing pursuant to Directive 2001/18/EC the Summary Notification Information Format for Notifications Concerning the Deliberate Release into the Environment of Genetically Modified Organisms for Purposes other than for Placing on the Market.

²⁷⁹ The need for controlling introductions of alien species has been recognized by several conservation conventions which set forth obligations to control introductions, whether intentional or accidental e.g., Article 11.2 of the Berne Convention on European Wildlife (1979); Articles 8(h) and 8(g) of the Convention on Biological Diversity (1992); and Article 196 of UNCLOS (1982).

however, that it may not be possible to determine in advance with full scientific certainty if significant adverse effect is likely to occur, and, accordingly, Article 7 (Precaution) should apply unless no such risk exists.

Paragraph 4 is an acknowledgement of the spread of new diseases and the transmission of disease-bearing organisms between species, bringing a risk of pandemics.

PART VI. OBLIGATIONS RELATING TO GLOBAL ISSUES

Part VI deals with different societal activities that directly or indirectly affect environmental protection and thus sustainable development. They reflect the variety of structural problems and root causes throughout the world and the need to address these at the global level in a spirit of solidarity, reflecting the concept of common but differentiated responsibilities. The full transition to sustainable development will not be achieved unless the global issues identified in this Part are dealt with on a worldwide scale.

ARTICLE 31

ACTION TO ERADICATE POVERTY

Parties, individually or in partnership with other States, international organizations and civil society, in particular the private economic sector, shall adopt measures aimed at the eradication of poverty, including measures to:

- a) legally empower people living in poverty to exercise their rights including the right to development;**
- b) respect, ensure, promote and fulfil the rights of vulnerable and marginalized persons, in particular to food, water, housing and other basic needs;**
- (c) enable all individuals to achieve sustainable livelihoods, in particular by increasing access to and control over resources, including land;**
- (d) rehabilitate degraded resources, to the extent practicable, and promote sustainable use of resources for basic human needs;**
- (e) provide potable water and sanitation;**
- (f) provide education, with a particular focus on, and with the participation of women and girl children, indigenous peoples, local communities, and vulnerable or marginalized persons; and**
- (g) support microcredit and microinsurance schemes and the development of microfinance institutions and their capacities.**

Article 31 is designed to implement the principle set forth in Article 11 (Eradication of Poverty) of the Draft Covenant. This provision is addressed to all Parties, recognizing that no State is yet free from the challenge of eliminating poverty within its boundaries and on a global basis. Cooperation with non-Party States, envisaged here, includes North-South transfers of resources, cooperation among developing countries *inter se*, and action among industrialized countries. Since the causes of poverty are often regionally or nationally specific and may be complex, this provision is drafted so as to allow maximum flexibility in action to achieve its ends.

The Article lists a series of specific objectives which Parties must seek to achieve. The enumerated subparagraphs are based on existing international human rights and environmental standards.²⁸⁰ The obligations are also related to other provisions in the Draft Covenant, particularly Article 14(1) (Physical and Legal Persons), but are emphasised here in the context of eliminating poverty. The means for achieving these ends are many and involve all sectors of society. The WSSD Plan of Implementation gave concrete goals related to this provision, including action at all levels to 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.

ARTICLE 32

CONSUMPTION AND PRODUCTION PATTERNS

Parties shall reduce and seek to eliminate unsustainable patterns of consumption and production. Such strategies shall be designed to reduce the use of non-renewable resources in the production process. To this end, the Parties shall:

- (a) collect and disseminate information on consumption patterns and develop or improve methodologies of analysis;**
- (b) ensure that all raw materials and energy are conserved and used as efficiently as possible in all products and processes;**

²⁸⁰ See generally the Covenant on Economic, Social and Cultural Rights (1966). For subparagraph (a) see Article 25 of the Universal Declaration of Human Rights (1948) and Article 7 of the Covenant on Economic, Social and Cultural Rights (1966); for subparagraph (b) see Article 25 of the Universal Declaration of Human Rights (1948); for subparagraph (c) see FAO Code of Conduct on the Distribution and Use of Pesticides (1985); for subparagraph (d) Article 24(2)(c) of the Convention on the Rights of the Child (1989); for subparagraph (e) see Article 26 of the Universal Declaration of Human Rights (1948), Article 13 of the Covenant on Economic, Social and Cultural Rights (1966), and Article 17 of the African Charter on Human Rights (1981); and for subparagraph (f) see General Assembly resolutions 56/207 and 57/266, Para. 24 "Implementation of the first United Nations Decade for the Eradication of Poverty (1997-2006).

- (c) **require reusing and recycling of materials to the fullest extent possible;**
- (d) **promote product designs that increase reuse and recycling and as far as possible eliminate waste;**
- (e) **facilitate the role and participation of consumer organizations in promoting more sustainable consumption patterns;**
- (f) **mandate that economic enterprises adopt corporate social responsibility programmes that moderate consumption and contribute to social and environmental well-being; and**
- (g) **ensure that sufficient product information is made available to the public to enable consumers to make informed environmental choices.**

Article 32 reflects the understanding contained in the WSSD Plan of Implementation that changing unsustainable patterns of production and consumption and protecting and managing the natural resource base of economic and social development, along with poverty eradication, are overarching objectives of, and essential requirements for, sustainable development. In view of the tremendous challenge facing all States, not just industrialized ones, that seek to eliminate unsustainable consumption patterns, the essence of the obligation is to make best efforts, in good faith, to develop strategies to make such changes. This is in the expectation that developing these strategies will be a first step toward making new patterns supportive of sustainable development. Given the complexity of socio-economic factors underlying these patterns, it is not expected that all developing countries will have the capacity to develop strategies to the same effectiveness as in industrialized countries. Accordingly, the provision does not contain an absolute obligation to develop such strategies. However, industrialized Parties should assist developing countries in building their capacity in this regard (e.g., by implementing the provisions of this Covenant); once the capacity exists, these strategies should be developed.

These strategies are envisaged to make production patterns more sustainable while aiming to meet the basic needs of the poor.²⁸¹ The latter condition sets limits on the extent to which consumption patterns can be changed. The reference to production processes derives from the fact that a successful transition to sustainable development cannot be simply consumer driven. In particular, Parties must reduce use of non-renewable resources; this forms part of intergenerational, as well as intra-generational, equity.²⁸²

Subparagraphs (a) to (g) list specific obligations, although Parties have the discretion to take additional steps. *Subparagraph (a)* provides the basis for the development of strategies for changing consumption patterns, by encouraging the acquisition and analysis of relevant data. The requirement that this data be disseminated encourages meaningful public participation in decision-

²⁸¹ See also Article 11 (Eradication of Poverty).

²⁸² See also Article 5 (Equity and Justice).

making and is related to subparagraph (d).²⁸³ **Subparagraph (b)** aims at making the production process sustainable by requiring efficient use of natural resources and energy. **Subparagraph (c)** flows from subparagraph (b) by focusing on the recycling and reuse of the inputs into the production process, to the maximum extent each Party can achieve this result. As in subparagraph (b), the use of appropriate economic instruments should be considered. **Subparagraph (d)** calls for affirmative measures to encourage “green” technology in product design. This result can either be achieved through traditional command-and-control regulation or through economic instruments which encourage voluntary compliance.²⁸⁴ Different Parties will achieve different results, depending on their individual capacities. **Subparagraph (e)** is related to both subparagraph (a) and Article 14(3) (Physical and Legal Persons), but goes further by requiring each Party to not only remove obstacles to the effective functioning of consumer organizations, but to act in a supportive manner. One concrete application of this provision would be to disseminate the data referred to in subparagraph (a) in a non-technical and easily accessible manner. **Subparagraph (f)** is a specific application of the regime of environmental information. See Covenant Article 14(3). **Subparagraph (g)** refers to the need for consumer information as recognized in numerous national laws and in Article 169 of the 2009 Lisbon Treaty on the Functioning of the European Union, which should be made available as part of the larger obligation contained in Article 14(3).

ARTICLE 33

DEMOGRAPHIC POLICIES

Parties shall develop or strengthen demographic policies in order to achieve sustainable development. To this end, the Parties shall:

- (a) conduct studies to estimate the size of the human population their environment is capable of supporting and develop programmes relating to population growth at corresponding levels;**
- (b) cooperate to alleviate the stress on natural support systems caused by major population flows;**
- (c) cooperate as requested to provide a necessary infrastructure on a priority basis for areas with rapid population growth;**
- (d) provide to their populations full information on the options concerning family planning; and**
- (e) provide for long-term resettlement of persons displaced by changing environmental conditions.**

²⁸³ See also Article 13(3) (States).

²⁸⁴ See also Article 16(2)(b) (Integrated Policies).

Article 33 is intended to give effect to Article 16 (Integrated Policies) of the Draft Covenant, by requiring that Parties adopt demographic policies that are supportive of sustainable development.²⁸⁵ This provision favours action by each Party on an individual basis, with assistance from other Parties only when requested. Sustainable development is to be understood as an individual goal of each Party. It is to this end that “appropriate” demographic policies are to be developed and strengthened (see Article 12 (Common but Differentiated Responsibilities)).

The provision includes four mandatory actions, although the list is not exhaustive. *Subparagraph (a)* contains a two-fold obligation for each Party: the first is to conduct a regular census of its population and then on the basis of the results to estimate the carrying capacity of its environment; the second is to develop or strengthen appropriate programmes adapting population growth accordingly. The means of so doing are left to the discretion of each Party, consistent with other international obligations. *Subparagraph (b)* addresses the specific problem of population flows creating stress on natural systems. It calls for cooperation between States because of the transboundary environmental problems that may result, although it would also cover the situation where other States could also assist in coping with the unmanageable population flows, for example by resettlement. In this context, *Subparagraph (c)* provides for assistance in cases where rapid population growth outpaces the necessary infrastructure to support it. Other States are only required to contribute to establishing such an infrastructure, not to ensure a specific result. *Subparagraph (d)* gives effect to individual choice by requiring full information to be provided on the options concerning family planning consistent with international human rights obligations.²⁸⁶ In view of cultural differences concerning this issue, the intent of the provision is to require the Party to provide information on those options that are available in the particular Party; it is not intended to dictate which forms of family planning are acceptable.²⁸⁷

ARTICLE 34

TRADE AND ENVIRONMENT

- 1. Parties shall cooperate to establish and maintain an open and non-discriminatory international trading system that equitably meets the developmental and environmental needs of present and future generations.**

To this end, Parties shall endeavour to ensure that:

- (a) trade does not lead to the wasteful use of natural resources nor interfere with their conservation or sustainable use;**

²⁸⁵ This Article is based on the precautionary approach (Article 7 (Precaution)). See also Principle 6 of the Cairo Conference Programme of Action (1994).

²⁸⁶ See Principle 8 and Paragraph 7.14(a) of the Cairo Conference Programme of Action (1994).

²⁸⁷ Cf. Article 12(1) of the Convention on the Elimination of All Forms of Discrimination Against Women (1979).

- (b) **trade measures addressing transboundary or global environmental problems are based, as far as possible, on international consensus;**
 - (c) **trade measures for environmental purposes do not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade;**
 - (d) **unilateral trade measures by importing Parties in response to activities which are harmful or potentially harmful to the environment outside the jurisdiction of such Parties are avoided as far as possible or occur only after consultation with affected States and are implemented in a transparent manner; and**
 - (e) **prices of commodities and raw materials reflect the full direct and indirect social and environmental costs of their extraction, production, transport, marketing, and, where appropriate, ultimate disposal.**
- 2. Parties shall endeavour to ensure that for biological resources, products and derivatives:**
- (a) **trade is based on management plans for the sustainable harvesting of such resources and does not endanger any species or ecosystem; and**
 - (b) **any Party whose biological resources cannot be exported due to its observance of prohibitions imposed by a multilateral environmental agreement should receive appropriate compensation for losses it suffers as a result of non-compliance by any other Party.**

Article 34 is concerned with reconciling environmental protection and the international trade regime, a topic that has been high on the international agenda, particularly since UNCED. The latter regime is based on free-trade objectives²⁸⁸ and on the assumption that the well-being of all increases when goods and services move freely across national boundaries. However, this system is increasingly perceived as permitting unsustainable practices.

Despite free trade mandates, trade restrictions for environmental purposes have long been used to restrict markets for environmentally hazardous products and for items produced unsustainably.²⁸⁹ However, many countries have been suspicious of attempts to impose trade restrictions for environmental purposes, fearing they are disguised instruments of protectionism. Article 34 strikes the

²⁸⁸ This is apparent from two key provisions of GATT (1947), reflecting the principles of “most-favoured nation” (Article I) and “non-discrimination” (Article III).

²⁸⁹ See CITES (1973); Montreal Protocol (1987); Basel Convention (1989).

balance between environmental protection and free trade goals in favour of environmental protection, while establishing safeguards to prevent abusive unilateral trade restrictions.²⁹⁰ In so doing, it reverses the current presumption in favour of free trade and against environmental norms.²⁹¹ As a result Parties may have to work towards ensuring that the rules of international economic law are supportive of this end.²⁹² The Article is consistent with the WTO Ministerial Declaration adopted in Doha on 20 November 2001 in which the participants expressed their conviction that “the aims of upholding and safeguarding an open and non-discriminatory multilateral trading system, and acting for the protection of the environment and the promotion of sustainable development can and must be mutually supportive”. They further recognized that “under WTO rules no country should be prevented from taking measures for the protection of human, animal or plant life or health, or of the environment at the levels it considers appropriate” provided the measures are not arbitrary, discriminatory or a disguised restriction on trade.

Paragraph 1 sets out the duty to cooperate to establish and maintain an international economic system that ensures inter- and intra-generational equity, giving effect to the principles enunciated in Articles 5 (Equity and Justice) and 10 (Right to Development) of the Draft Covenant. This duty has been recognized in recent international instruments as being an essential component of sustainable development.²⁹³ It is manifest that developing countries cannot develop sustainably unless the global rules of trade are supportive of sustainable development (or at least are not an obstacle).²⁹⁴ The subparagraphs contain a non-exhaustive list of actions Parties should take to achieve the system foreseen in the first sentence of Paragraph 1.

Subparagraph (a) states that international trade should not be an obstacle to sustainable use and conservation of natural resources. As such, it should be read along with Article 13(2) (States) of the Draft Covenant. Its wording is stronger than the prescription in Agenda 21 that international trade and environmental policies be consistent²⁹⁵ or that trade and environment be mutually support-

²⁹⁰ Indeed, Agenda 21 (1992) calls for improved access for export markets of developing countries.

²⁹¹ This presumption currently exists as a result of several GATT Panel rulings on the interpretation of GATT Article XX.

²⁹² Conflicts with the GATT (1947) as currently interpreted may arise with respect to instruments which further the ends of the Draft Covenant.

²⁹³ See generally, WTO Agreement (1994). See also Principle 12 of Rio Declaration (1992); Paragraph 2.9 of Agenda 21 (1992).

²⁹⁴ See, generally, Chapter 2 of Agenda 21 (1992). Examples of current obstacles are the lack of market access in developed countries for manufactured products, thereby increasing dependence in developing countries on resource extractive industries; heavy international debt pressure on developing countries to overexploit their natural resources in order to get hard currency; and developed country dumping of agricultural surpluses (the result of protectionist policies) which devalue commodities important to the export economy of developing countries.

²⁹⁵ Paragraph 2.20.

ive.²⁹⁶ The general application of this provision implements the obligation of Parties to protect and preserve their own environment as well as that of areas beyond national jurisdiction (Article 65).

Subparagraph (b) expresses the objective that trade measures concerned with international (global or transboundary) environmental matters be based on multilateral consensus, if possible. This is because international problems invite international solutions and also because this approach facilitates effective enforcement and eliminates free riders. In addition, this obligation is in accordance with the general requirement under international law that States cooperate with each other in good faith. The presumption against unilateral action on these matters has been recently expressed in international law. While this provision does not require that every Party subscribe to such trade measures, it seeks to ensure that instances of economic coercion are minimized. Widely adhered to multilateral environmental treaties that employ trade measures would not be in violation of this provision even where applied against non-Parties.²⁹⁷ Where a single Party or group of Parties seeks to impose a trade restriction that may adversely affect developing countries, all concerned should cooperate to find a solution. Such a solution could be reached by transferring technology to the affected developing countries, so as to allow them to comply with the relevant environmental standard (see also Article 47 (Development and Transfer of Technology)), or by compensating them for any undue hardship (see also Article 52 (International Financial Resources)). Finally, it should be noted that products as well as production processes and methods may be “environmental problems” as contemplated by this provision.

Subparagraph (c) is intended to protect the integrity of the international free trade system, as well as the integrity of trade-related environmental measures. This provision does not contain any qualifying language, indicating its importance. It is consistent with Agenda 21²⁹⁸ and GATT (1947)²⁹⁹ in seeking to eliminate protectionism and/or discriminatory trade barriers disguised as environmental measures.³⁰⁰

²⁹⁶ See Paragraph 2.19 of Agenda 21 (1992). In fact, international trade involving ecologically unsound consequences could be seen as an activity that has or is likely to have significant adverse effects on the conservation of biological diversity and sustainable use of biological resources, which Parties to the Convention on Biological Diversity (1992) are required to identify (Article 7(c)) and to regulate or manage (Article 8(c)).

²⁹⁷ E.g., CITES (1973), Montreal Protocol (1987), Basel Convention (1989). Note Article 104 of the NAFTA (1992) which, in certain circumstances, permits those treaties to override its provisions.

²⁹⁸ Paragraph 39.3(d).

²⁹⁹ Chapeau to Article XX of GATT (1947).

³⁰⁰ GATT jurisprudence reveals an overriding concern with preventing permissible exceptions from being abused for protectionist purposes (see e.g., *GATT Panel Report: Canada – Measures Affecting Exports of Unprocessed Herring and Salmon* (1987); *GATT Panel Report: Thailand – Restrictions of, and International Taxes on, Cigarettes case* (1990); *GATT Tuna I case* (1991); and *GATT Tuna II case* (1994). See also, Stockholm Recommendation 103 (1972), discouraging the use of environmental concerns as pretexts for discriminatory trade policies.

Subparagraph (d) is intended to limit the exercise of unilateral trade measures for environmental purposes. They may be used to protect the environment of areas beyond national jurisdiction³⁰¹ only if affected States have been consulted and the measures are implemented in a transparent manner. Unlike subparagraph (b) permitting multilateral trade barriers for international environmental purposes, subparagraph (d) calls for avoidance of unilateral measures. This is indicative of the general undesirability of unilateral trade measures. However, in extreme circumstances, unilateral trade restrictions may be the only effective means of protecting, for example, the global commons. Article 65 (Areas Beyond the Limits of National Jurisdiction), read in conjunction with Article 13 (States), allows Parties pursue this objective. There must, however, be some nexus between the action taken by the acting Party and the objective of environmental protection. “Consultation” should be understood both in the sense of attempting to negotiate a consensus and in the sense of informing affected States of the environmental issue at stake. The obligation of “transparency” is to ensure that such unilateral measures are not employed for improper purposes and to enable all affected States to understand the nature of the measures taken and how to comply with them.³⁰²

Subparagraph (e) imposes an obligation on Parties to influence the market, both domestically and internationally, so that commodity and raw material prices reflect all social and environmental costs. As such, it is related to Article 13 (States) and 16 (Integrated Policies), and is an application of the “originator pays principle”. It is highlighted for special mention in this Article because of the particularly detrimental effect international trade can have. The objective of the provision is already partially realized in most States,³⁰³ although the differing extent to which this is so gives rise to non-tariff barriers. This provision also encourages Parties to limit their subsidization of private enterprises, both those which operate in an unsustainable manner and those which seek State aid in meeting environmental requirements. Although the global trade regime already discourages the use of subsidies (see Article XVI of the GATT (1947) and, generally, the Uruguay Round Agreement on Subsidies and Countervailing Measures (1994)), full implementation of this provision will entail a broader interpretation of the concept of “subsidy” than is currently in use and would include, e.g., agricultural subsidies (which under the Uruguay Round Agreement on Agriculture are still permitted to exist) or *de facto* subsidies which accrue due to lack of stringent environmental regulation. As such, full implementation of this policy will eliminate the need for most environmentally related trade restrictions, and as such will preserve the integrity of the free trade system. It should be noted that implementation of this provision is no substitute for reducing the external costs of environmental harm as far as possible.

³⁰¹ *Contra*, the *GATT Tuna I* case (1991).

³⁰² For example, in the *GATT Tuna I* (1991) case, Mexico claimed that US regulations on taking of tuna were not transparent because the allowable foreign quotas were determined in an unpredictable manner.

³⁰³ This is the result of much environmental regulation, for example the enactment of emissions standards, product standards, and environmental taxes, fees and levies.

Paragraph 2 focuses on biological resources³⁰⁴ because of their particular vulnerability to the adverse effects of international trade. It is especially important that States structure their trade relations so as not to place these resources in danger.³⁰⁵ **Subparagraph (a)** is directly concerned with the sustainable harvesting of biological resources that are traded. The Convention on Biological Diversity identifies the elaboration of management plans as a particularly effective means for ensuring the conservation of biological resources.³⁰⁶ Paragraph 2 takes this notion further by encouraging Parties to base trade in such management plans on the conservation of ecosystems as well as species.³⁰⁷

Subparagraph (b) covers a special situation, best exemplified by CITES (1973). States that comply with their obligations to restrict the trade in endangered species are “punished” or deprived of benefits from these species in cases when the endangered status of the species in question is maintained due to other States not complying with such treaties.³⁰⁸ The 19th IUCN General Assembly requested that possibilities for compensating such States, as well as the precise modalities of compensation, be explored.

ARTICLE 35

TRANSNATIONAL ECONOMIC ACTIVITIES

- 1. Parties shall take measures to prevent significant environmental harm and minimize the risk thereof from economic activities conducted under their jurisdiction or control.**
- 2. Parties shall require, from all economic entities conducting activities under their jurisdiction or control, information on:**
 - (a) potential or actual harm to the environment resulting from their activities;**

³⁰⁴ Article 2 of the Convention on Biological Diversity (1992) defines biological resources as including “genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use of value for humanity”.

³⁰⁵ See, generally, CITES (1973), as well as Article IX of the African Convention, Article 5(1)(b) of the ASEAN Agreement (1985), and Article 3(2)(c) of the South Pacific Driftnets Convention (1990).

³⁰⁶ Article 8(b), (c), and (f).

³⁰⁷ This provision is also based on the scheme established by CITES (1973) which establishes trade restrictions in accordance with a species’ conservation status.

³⁰⁸ This provision is primarily aimed at the application of CITES (1973), but also would be relevant to the application of other regional treaties with similar regimes, such as Article IX of the Western Hemisphere Convention (1940), Article IX of the African Convention (1968), and Article 5 of the ASEAN Agreement (1985).

- b) the relevant environmental legal requirements and standards applicable in the State of origin and the techniques used in that State to comply with such requirements and standards; and**
 - (c) reasonably available data and information concerning the state-of-the-art techniques to prevent environmental harm.**
- 3. In the case of activities of foreign origin, the Party of origin shall, upon request of the host Party,**
 - (a) provide it with all relevant information on applicable environmental requirements and standards within the limits of its jurisdiction; and**
 - (b) enter into consultations with the host Party to enable the host Party to take appropriate measures regarding such activities.**
- 4. The Party of origin shall ensure that, in the absence of equally strict or higher environmental standards in the host Party or express agreement by the host Party to the contrary, its nationals apply the relevant standards of the Party of origin as a minimum.**
- 5. Parties shall cooperate with and encourage economic entities to develop and abide by guidelines or codes of conduct of corporate social responsibility.**

Article 35 aims to ensure that economic activities of foreign origin, primarily those of transnational corporations, are conducted in a manner that does not cause environmental harm. It encompasses and develops the concept of prior informed consent in the regulation of these activities, and adds a new choice of law principle in requiring application of the best environmental laws.

The scope of the provision governs individuals, private or State-owned enterprises and corporations, and other business organizations of foreign origin. The latter term includes individuals of foreign nationality, enterprises having the nationality of another State and corporations that are not incorporated in the State where the activities are occurring.³⁰⁹ It also includes transnational corporations that are incorporated in the State where the activity is occurring but which are wholly or in majority owned by foreign nationals. “Origin” in this Article refers to home nationality of the activity of foreign origin, while “host” refers to where the activity takes place, other than at the origin.

The principle of territorial sovereignty in international law permits a State generally to control the entry of foreigners to its territory and to subject them to its domestic laws while they

³⁰⁹ Under international law, nationality refers not only to the place of incorporation, but also where effective control lies.

are present. In addition to being subject to the territorial laws where they do business, corporations are governed by the laws of the State of incorporation, as the International Court of Justice held in the *Barcelona Traction* case.

According to **Paragraph 1**, Parties must require foreign economic actors to provide information regarding potential adverse environmental effects of their activities and the ways and means to avoid them. The Party in receipt of such information should accord any confidential business information with any reasonable and normally applicable safeguards to protect that confidentiality.³¹⁰

In terms of the information that must be provided to the host Parties, subparagraph (a) implies that the entities will conduct an environmental impact assessment³¹¹ if needed in order to report on the environmental harm of their activities.³¹² Subparagraph (b) requires information on relevant legislation and regulations in the State of origin.³¹³ Subparagraphs (c) and (d) provide for sharing of information on commonly used and state-of-the-art industrial techniques to prevent environmental harm.³¹⁴

Paragraph 2 creates a parallel obligation requiring the Party of origin to provide additional information on its environmental requirements and standards (**subparagraph (a)**), and to enter into consultations if requested (**subparagraph (b)**).

Paragraph 3 calls for the Party of origin to impose its own standards of conduct on its nationals operating outside its territory,³¹⁵ where these standards are more stringent than in the host Party, except where both Parties agree otherwise. The provision is structured so as not to interfere with the sovereign rights of the host Party to regulate as it sees fit. This provision will discourage the relocation of activities harmful to the environment to countries with weak environmental standards.³¹⁶ By not allowing economic entities to escape more stringent rules, this provision may also remove the inducement to have weak standards to attract environmentally harmful activities and thus should enhance overall environmental protection.

³¹⁰ See Article 54 of the Code of Conduct of Transnational Corporations.

³¹¹ An EIA may be already required under Article 42 (Environmental Impact Assessment) if there is a risk of significant environmental harm, but even this is not the case, the provisions of that Article should be applied where appropriate.

³¹² See Articles 44 (and generally Article 47(a)) of the Draft Code of Conduct on Transnational Corporations and Article 3 of the OECD Guidelines for Multinational Enterprises. See also the “Responsible Care Code” approved by the US Chemical Manufacturers Association in 1988.

³¹³ See Paragraph 44 of the Draft Code of Conduct on Transnational Corporations.

³¹⁴ *Id.*

³¹⁵ The direct regulation of a State’s nationals abroad is recognized under international law. See e.g., Article 19(4) of the Convention on Biological Diversity (1992), which requires a Contracting Party to require of any person under its jurisdiction to provide information on the safety and use of living modified organisms which is required in that Contracting Party to the Contracting Party into which the organisms are to be introduced.

³¹⁶ This draws on Principle 14 of the Rio Principles relating to relocation by transnational enterprises.

ARTICLE 36

MILITARY AND HOSTILE ACTIVITIES

- 1. Parties shall protect the environment during periods of armed conflict. In particular, the Parties shall:**
 - (a) observe, outside combat zones, all national and international environmental rules by which they are bound in times of peace;**
 - (b) take all reasonable measures to protect the environment against avoidable harm in areas of armed conflict;**
 - (c) not employ or threaten to employ methods or means of warfare which are intended or may be expected to cause widespread, long-term, or severe harm to the environment and ensure that such means and methods of warfare are not developed, produced, tested, or transferred; and**
 - (d) not use the destruction or modification of the environment as a means of warfare or reprisal.**
- 2. Parties shall cooperate to further develop and implement rules and measures to protect the environment during armed conflict; until a more complete code of environmental protection has been adopted, in cases not covered by international agreements and regulations, the biosphere and all its constituent elements and processes remain under the protection and authority of the principle of international law derived from established custom, from dictates of the public conscience, and from the principles and fundamental values of humanity acting as steward for present and future generations.**
- 3. Parties shall take the necessary measures to protect natural and cultural sites of special interest, in particular sites designated for protection under applicable national laws and international treaties, as well as potentially dangerous installations, from being subject to attack as a result of armed conflict, insurgency, terrorism, or sabotage. Military personnel shall be instructed as to the existence and location of such sites and installations.**
- 4. Parties shall take measures to ensure that persons are held responsible for the deliberate and intentional use of means or methods of warfare which cause widespread, long-term, or severe harm to the environment and/or for terrorist acts causing or intended to cause harm to the environment.**
- 5. Parties shall ensure that military personnel, aircraft, vessels and other equipment and installations are not exempted in times of peace from rules, standards, and measures for environmental protection.**

Article 36 responds to the widespread sentiment that international law should provide better protection for the environment during armed conflict, both by enforcing existing norms and developing new ones.³¹⁷ It seeks to offer as much environmental protection as is reasonably possible during armed conflict, based on the presumption under customary international law that the environment, *per se*, which is not a military objective, is entitled to protection.³¹⁸ Conflicts such as the 1991 Gulf War and those in regions of the former Yugoslavia have aroused international consciousness about the potential to cause grave harm to the environment.³¹⁹ Environmental protection in this context is particularly difficult and complex, due to the axiom that all warfare is harmful to the environment. As such, the law on this issue can only limit rather than eliminate the environmental damage.³²⁰

The first sentence of **Paragraph 1** calls for the environment to be protected during armed conflict, and the following subparagraphs are a non-exhaustive list of measures to achieve this end. This general rule is largely a restatement of international law,³²¹ and implies that all peacetime obligations relating to environmental protection continue upon the outbreak of hostilities, so long as they do not interfere with the lawful exercise of force.³²² As between belligerents and third parties, the Draft Covenant provision is an application of the customary principle of “neutrality”. As between belligerents themselves, two reasons justify the continuance of environmental treaties during wartime: first, there exists a global interest in the integrity of the environment,³²³ given the ecological reality of interdependence and interrelation, *i.e.*, the consequences of most environmental

317 This is implied by Principle 24 of the Rio Declaration (1992) and Paragraph 39.6 of Agenda 21. See also UNGA Resolution 47/37.

318 See e.g., ICRC Guidelines (1994).

319 See the United Nations Compensation Commission created in the aftermath of the 1991 Gulf War (UN Security Council Resolution 687/1991) and *Bosnia-Herzegovina v. Yugoslavia (Serbia and Montenegro)* (1993) where the applicants claimed compensation, *inter alia*, for damage to the environment.

320 Note the customary principles of the law of war, “proportionality”, “discrimination”, and “military necessity” as well as treaty law, especially the ENMOD Convention (1976), Additional Protocol I (1977), and Inhumane Weapons Convention (1980). In addition several arms control treaties are relevant (notably the Geneva Gas Protocol (1925); Biological Weapons Convention (1972); and the Chemical Weapons Convention (1993)).

321 See Articles 35(3) and 55(1) of Additional Protocol I (1977). See also Principle 24 of the Rio Declaration (1992).

322 To be noted is that most environmental treaties are silent about the consequences of armed conflict. The one exception is the Article XIX of the OILPOL Convention (1954), which expressly provides for the treaty’s suspension during armed conflict. This treaty, however, has been superseded by the MARPOL Convention (1973), which does not contain any reference to armed conflict. The other environmental treaties which contemplate armed conflict are those which exempt operators from liability, such as Article 9 of the Paris Nuclear Liability Convention (1960); Article IV/3(a) of the Vienna Nuclear Liability Convention (1963); and Article III(2)(a) of the Oil Pollution Civil Liability Convention (1969). Finally, note should be made of Article 6(3) of the World Heritage Convention (1972) which prohibits deliberate measures from being taken which might directly or indirectly harm designated sites.

323 This is also reflected in Article 3 (Common Concern of Humanity) of the Draft Covenant.

damage will not be confined to the belligerents alone; and second, most environmental treaties do not contain express provisions limiting their application during wartime.

Subparagraph (a) explicitly requires the continued application by Parties of national and international environmental rules during armed conflict to areas outside the conflict, and follows from the aforementioned reasoning. As above, this provision encompasses environmental rules derived from customary and treaty law.

Subparagraph (b) sets out a second basic obligation to which Parties must adhere during armed conflict. The first part of this provision builds on the requirements set out in the World Charter for Nature,³²⁴ which in addition to requiring nature to “be secured against the degradation caused by warfare or other hostile activities”, states that “military activities damaging to nature are to be avoided”. Additional Protocol I (1977) also requires that care be taken to protect the natural environment as a whole against “widespread, long-term and severe damage”.³²⁵

Subparagraph (c) contains a threshold of permissible harm that departs from existing precedents, with the particular elements to be understood in accordance with their ordinary meaning.³²⁶ This provision is expressed in the disjunctive (“or”) along the lines of ENMOD Convention (1976),³²⁷ as compared with the conjunctive (“and”) in Additional Protocol I (1977),³²⁸ although “long-term” (from Additional Protocol I) is used instead of “long-lasting” (from ENMOD).³²⁹ This provision is intended to reinforce the requirement set forth in subparagraph (b) by regulating the means and methods of warfare. Weapons systems are internationally regulated if they cause indiscriminate effects or excessive injuries. Chemical and nuclear weapons and anti-personnel land mines, in particular, are all governed by international agreements. A Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction was signed in Paris on 15 January 1993. In 1996, the Conference of State Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons adopted a protocol on the use of mines, booby-traps and other devices. Finally, the 1997 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction, mentions the environment, although its purpose is to end the casualties caused by land mines.

³²⁴ Principle 5 of the World Charter for Nature (1982).

³²⁵ Articles 35(3) and 55(1).

³²⁶ The Conference of the Committee of Disarmament (CCD), the body under whose auspices ENMOD was negotiated, transmitted to the UN General Assembly an Understanding on Article I of ENMOD, which stated that “widespread” encompasses an area on the scale of several hundred square kilometres and “severe” involves serious or significant disruption or harm to human life, natural and economic resources or other assets. During the Diplomatic Conference which adopted Additional Protocol I, the general understanding was that “long-term” meant several decades.

³²⁷ Article 1.

³²⁸ Article 35(3).

³²⁹ Since ENMOD Convention (1976) was negotiated at the same time as Additional Protocol I (1977), it is clear that their thresholds, which are worded slightly differently, are meant to be different.

This provision's prohibition on the methods or means of warfare which "are intended or may be expected" to cause damage, echoes the language of Articles 35(3) and 55(1) of Additional Protocol I, suggesting that its breach is not dependant on a finding that the attacker intended to cause the resulting damage. The final clause of this subparagraph is intended to give effect to preventive and precautionary approaches (Articles 6 and 7) by ensuring that means and methods of warfare which exceed the threshold of permissible harm are not available to the combatants.³³⁰ This safeguard is in recognition of the temptation to which desperate commanders in the heat of battle may succumb using such means and methods even if prohibited. Comprehensive assurance of compliance with this requirement entails sophisticated institutional and verification support.³³¹

Subparagraph (d) seeks to protect the environment from being used as a means of warfare, restating current international law. This is certainly the intent of ENMOD. In addition, Additional Protocol I has been interpreted as protecting the environment *per se*, thereby precluding its use as a weapon in many instances. Indeed, the drafting history of Additional Protocol I clearly reflects an intent to prevent a belligerent from even using its own environment as a technique of warfare. The proscription of reprisals against the environment is a repetition of the requirement of Article 35(3) of Additional Protocol I and is a progression on the state of customary international law in this context.

Paragraph 2 aims at the further development of the law on this subject, both to deal with international armed conflict and non-international armed conflict. In the latter case, there is a dearth of law which must be remedied.³³²

Paragraph 3 i is intended to provide protection to sites and installations of particular importance. It is derived from existing international law,³³³ although is stronger in not provid-

³³⁰ This, for example, is what the Chemical Weapons Convention (1993) seeks to do. The Convention on Anti-Personnel Land Mines (1997) and the Convention on Cluster Munitions (2008) mention protection of the environment and require that each State Party report to the Secretary-General of the United Nations, including information on the status of programmes to destroy land mines and cluster munitions, details of the methods to be used, the location of destruction sites and the applicable safety and environmental standards. Note also that the Comprehensive Nuclear Test Ban Treaty (1996) in its Preamble states that "the views expressed in this treaty could contribute to the protection of the environment".

³³¹ See e.g., the institutional and verification scheme afforded by the Chemical Weapons Convention (1993).

³³² E.g., Additional Protocol II (1977), which applies during non-international armed conflict, parallels the obligations of Additional Protocol I (1977) in several respects, save for the complete absence in the former of provisions directly protecting the environment.

³³³ The duty to protect cultural sites during wartime derives from the regime established under the Hague Cultural Property Convention (1954). Article 6(3) of the World Heritage Convention (1972) extends this protection to natural sites by requiring that States refrain from taking any deliberate actions which may directly or indirectly harm the designated sites of other States. The obligation to protect potentially dangerous installations draws on the substance of Article 56 of Additional Protocol I. Article 29 of the Watercourses Convention (1997) provides that "international watercourses and related installations, facilities and other works shall enjoy the protection accorded by the principles and rules of international law

ing an exhaustive list or permitting exceptions. In addition, the provisions on demilitarized zones and non-defended localities in Additional Protocol I could encompass the protection of natural and cultural sites. The requirement that military personnel be specially instructed responds to a general perception that armed forces personnel generally do not appreciate the environmental effects of their actions or the relevant law on this matter. This concern is evident in UNGA Resolution 47/37, passed unanimously, which calls for, *inter alia*, improved awareness by armed forces of environmental provisions of the law of war. This perception is also behind the efforts of the ICRC to develop guidelines for military manuals on environmental protection requirements.³³⁴

Paragraph 4 strengthens existing international law by requiring the imposition of individual criminal responsibility for actions which exceed the threshold of permissible harm outlined in Paragraph 1(b) above.³³⁵ In so doing, it echoes the recent efforts of the UN International Law Commission, reflected in its Draft Code of Crimes against the Peace and Security of Mankind.³³⁶ The intention of the provision is to satisfy the demands of deterrence and retribution by signalling that individuals will be held accountable for breaches of Paragraph 1(b). To be noted, however, is that only those offenders who act in a deliberate and intentional manner are to be so punished. Collateral damage not foreseen would, therefore, not be covered. The discretion is left to individual Parties as to how to implement this obligation. Joint action, for example through the United Nations, could be undertaken.

Paragraph 5 is intended to regulate the significant environmental threat posed by military activities during peacetime by placing them under the rubric of general environmental law. It is based on general rules of international law, according to which sovereign immunity only precludes a litigant from pursuing a course of action against a sovereign or a Party with sovereign attributes, but does not exempt such entities from the duty to respect national or international law.³³⁷ Both the MARPOL Convention (1973) and UNCLOS (1982) require vessels with such immunity to comply as far as possible with the environmental provisions of each treaty.³³⁸ In other instances, environmental treaties are silent on the issue of sovereign immunity. Implementation of the Nuclear Notification Convention (1986) is noteworthy in that it has given rise to some State practice of including military submarines within its ambit despite no express requirement to do so. Moreover,

applicable in international and non-international armed conflict and shall not be used in violation of those principles and rules”.

³³⁴ Also see ICRC Guidelines (1994).

³³⁵ See ICRC Guidelines (1994).

³³⁶ Article 26 as adopted by the ILC in 1991, although to be noted is that the ILC’s threshold is cumulative (“and”) based on the wording of Article 55(1) of Additional Protocol I (1977). See also the Comprehensive Nuclear Test Ban Treaty (1996) that calls on Parties to establish jurisdiction over their nationals who violate the Treaty anywhere and over violations that occur within their territory or jurisdiction.

³³⁷ E.g., Article VII (4) of the London Convention (1972).

³³⁸ Article 3(3) MARPOL Convention (1973), Article 236 UNCLOS (1982).

domestic state practice in relation to military activities during peacetime reveals an increasing trend to take environmental considerations into account.³³⁹

PART VII. TRANSBOUNDARY ISSUES

The first rules of international environmental law emerged because of the need to address transboundary problems which result from the increasing human capacity to adversely affect the environment of other States.³⁴⁰ The roots of the norms are traceable to both customary and treaty law. “Transboundary” in this Draft Covenant is intended to refer to matters which originate under the jurisdiction of one State and affect the environment of one or more other States,³⁴¹ or areas beyond national jurisdiction. Two central themes are apparent throughout the law. The first is the avoidance of transboundary harm and the second is the caring for transboundary natural resources, including their equitable and sustainable or reasonable use and management. Both themes are reflected in the provisions of the Draft Covenant and Commentary.

ARTICLE 37

TRANSBOUNDARY ENVIRONMENTAL EFFECTS

Parties shall take appropriate measures to prevent or minimize the risk of harm to the environment of other States or of areas beyond national jurisdiction. When a proposed activity may generate harm, the Parties shall:

- (a) ensure that an environmental impact assessment is undertaken;**
- (b) give prior and timely notification, along with relevant information to potentially affected States, and consult in good faith with those States at an early stage;**
- (c) grant potentially affected persons in other States access to and due process in administrative and judicial proceedings relating to the proposed activity without discrimination on the basis of residence or nationality;**
- (d) require prior authorization for the said activity, as well as for any major change or proposed change in the activity likely to transform it into one falling within the scope of Part IX.**

³³⁹ See e.g., Paragraph 32 of the Helsinki Summit Declaration of the Conference on Security and Cooperation in Europe (1992).

³⁴⁰ See e.g., *Trail Smelter* case.

³⁴¹ This encompasses both the territory and other subjects of a State’s jurisdiction (e.g., vessels) and would include a State’s exclusive economic zone.

Article 37 details the fundamental rule of international environmental law expressed in Article 13(1) (States): that States have an obligation to prevent transboundary environmental harm.³⁴² This provision concerns both the actions required to avoid such harm and those required when the possibility of harm is determined to exist. As such, it is closely linked to the principle of prevention (Article 6 (Prevention)). When the harm may be significant or pose risks of irreversible harm, precaution (Article 7 (Precaution)) requires that measures be taken even if the scientific evidence is not conclusive.

The first sentence of Article 37 requires Parties to take “appropriate measures” to prevent, or at any event to minimize transboundary harm, in line with Principle 3 (Prevention) of the ILC Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities; see also Article 54 of the Draft Covenant. Actually, whenever preventive measures succeed in eliminating the risk of damage, the activity ceases to be hazardous. Only those activities which continue to be hazardous, notwithstanding preventive measures, are of concern here in the context of Part IX, and will accordingly have to be minimized.

The obligation of Article 37 not only attaches to governmental activity, but implies the establishment of a framework for regulating private activities under a Party’s control.³⁴³ As the International Court of Justice stated in the *Corfu Channel* case, every State has an obligation “not to allow knowingly its territory to be used for acts contrary to the rights of other States”. What constitutes the “due diligence” required for this purpose will vary with each case; two relevant factors are the capabilities of the Parties and the foreseeability of the harm. To some extent, the second factor is dependant on the first, which itself is related to several other provisions of the Draft Covenant (e.g., Article 47 (Development and Transfer of Technology), Article 49 (Information and Know-

³⁴² The famous dictum laid down in the *Trail Smelter* case on the damage caused to the United States from a smelter in Canada states:

[U]nder 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 of persons therein, when the case is of serious consequence and the injury established.

Although technically *obiter dicta*, this statement has been widely accepted as a declaratory of customary international law (or else of a general principle of international law based on Article 38(1)(c) of the Statute of the International Court of Justice) and is based on the ancient principle of *sic utere iure tuo ut alienum non laedas*. See e.g., the comment made by the arbitral tribunal in the *Lac Lanoux* decision whereby a claim would exist against a State which pollutes a transboundary river; Article 194(2) of UNCLOS (1982); and Article 20(2) of the ASEAN Agreement (1985). See also Principle 21 of the Stockholm Declaration (1972); Principle 2 of the Rio Declaration (1992); Principle 3(3) of the UNEP Draft 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 (1978).

³⁴³ This was the case, for example, in the *Trail Smelter* arbitration, where the tribunal found that Canada was responsible for regulating a private smelter under its jurisdiction. Article 192 of the UNCLOS (1982).

ledge), and Article 52 (International Financial Resources)).³⁴⁴ While due diligence implies that *de minimis* environmental harm is likely excluded, it does require best effort toward abatement once transfrontier harm is positively identified. This may not only involve action by the source Party, but also cooperative international action.³⁴⁵ This may require Parties to cooperate with each other or with international organizations to deal with transboundary harm.³⁴⁶ By seeking to also regulate threats to the environment beyond areas of national jurisdiction, this provision is reflective of the evolution of international environmental law.³⁴⁷

The second sentence of Article 37 lists the duties that arise once the risk of transboundary harm is determined to exist.³⁴⁸

The first duty, in *subparagraph (a)*, is to undertake an environmental impact assessment (EIA) required under Article 42 (Environmental Impact Assessment). In many cases, an EIA may already have been carried out in accordance with existing rules of international law to determine whether the proposed activity could give rise to transboundary harm.³⁴⁹ This will require, *inter alia*, involving the public in other affected States in the EIA process and ensuring that all concerned are advised of the final decisions and periodic reviews, in particular so that full exercise can be made of any

³⁴⁴ See also Article 2 of the London Convention (1972) which links the obligation to taking effective measures with each Party's scientific, technical and economic capabilities. Also see Article 12 of the Climate Change Convention (1992), and Article 12 of the Convention on Biological Diversity (1992) which both condition fulfilment of environmental obligations by developing countries with the provision of financial resources by developed countries.

³⁴⁵ See also Article 18 (Emergencies) of the Draft Covenant.

³⁴⁶ See e.g., Article 199 of the UNCLOS (1982).

³⁴⁷ See e.g., Article 3 of the Convention on Biological Diversity (1992), which echoes Principle 21 of the Stockholm Declaration (1972), Principle 2 of the Rio Declaration (1992), and Article 30 of the Charter of Economic Rights and Duties of States (1974). For the marine environment, see e.g., Article 194(2) of UNCLOS (1982), and by implication other treaties aimed at protecting the marine environment by setting standards which seek to prevent, reduce, and control pollution (e.g., London Convention (1972) and MARPOL Convention (1973)). For other areas beyond national jurisdiction, see e.g., Antarctic Treaty (1959) and the Outer Space Treaty (1967); Article 1 of the Nuclear Test Ban Treaty (1963); Articles 4 and 5 of the Convention on Biological Diversity (1992); and Article 20 of the ASEAN Agreement (1985).

³⁴⁸ As illustrated in Article 4 of the ECE Industrial Accidents Convention (1992), positive measures, individually or jointly, may be required to identify the existence of such possibilities. Note also the inquiry procedure to be established under that Convention in cases of disagreement between parties.

³⁴⁹ E.g., pursuant to Article 2(7) of the Espoo Convention (1991); Article 206 of the UNCLOS (1982); Article 20(3)(a) of the ASEAN Agreement (1985); Article 12(2) of the Wider Caribbean Marine Environment Convention (1983); and Article 6 of the 1983 US-Mexico Agreement on Cooperation for the Protection and Improvement of the Environment in the Border Area. *Cf.* also Article 12 of the ILC Draft Articles on Liability (1994). Article 37 of the Watercourses Convention (1997) governs impact assessment.

rights of judicial or administrative review. For this to be a meaningful input, a sufficient flow of information between the relevant States is necessary.³⁵⁰ On 20 April 2010 the International Court of Justice (ICJ) delivered its judgment in the case concerning *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*. It declared environmental impact assessment to be a norm of customary international law at least in certain circumstances. In interpreting the provisions of a bilateral treaty between the parties, the Court held that the relevant provision “has to be interpreted in accordance with a practice, which in recent years has gained so much acceptance among States *that it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context, in particular, on a shared resource*. Moreover, due diligence, and the duty of vigilance and prevention which it implies, would not be considered to have been exercised, if a party planning works liable to affect the régime of the river or the quality of its waters did not undertake an environmental impact assessment on the potential effects of such works”. (emphasis added) The Court commented, however, general international law does not specify the scope and content of an environmental impact assessment.

The second requirement, in *subparagraph (b)*, is to notify and consult. Notice is an important feature of international environmental law.³⁵¹ The most extensive notification provision appears in the Nordic Convention (1974). It requires that once a determination is made that a significant nuisance to another Party may exist

... the examining authority shall, if proclamation or publication is required in cases of that nature, send as soon as possible a copy of the documents of the case to the supervisory authority of the other State ...³⁵²

Article 37 requires that notification be given in a “prior and timely” fashion, which implies that the notification be given no later than that provided to a Party’s own public.³⁵³ This is perhaps

³⁵⁰ See Articles 39(d) (Transboundary Natural Resources), 49 (Information and Knowledge), and 50 (Education, Training and Public Awareness) of the Draft Covenant.

³⁵¹ See e.g., Article 11(b) of the Kuwait Regional Convention (1978); Article 20(3) of the ASEAN Agreement (1985); Article 4 of the ECE Industrial Accidents Convention (1992); Article V(2) of US-Canada Air Quality Agreement (1991); and Articles 14(1)(c) and (d) of the Convention on Biological Diversity (1992). See also Principle 19 of the Rio Declaration (1992); Article 15 of the ILC Draft Articles on Liability (1994). Article 4(a) of the Danube Convention (1994); Articles 11 and 12 of the Watercourses Convention (1997) require prior information on planned measures “which may have a significant adverse effect upon other watercourse states”, including available technical data and information and the results of any environmental impact assessment.

³⁵² Article 5 of the Nordic Convention (1974).

³⁵³ See e.g., Article 2 of Annex III of the ECE Industrial Accidents Convention (1992); EC Council Directive on the assessment of the effects of certain public and private projects on the environment (1985).

best accomplished in a regular or institutionalized manner.³⁵⁴ Relevant information is to accompany the notification so as to facilitate the appropriate response to the risk.³⁵⁵

Consultation is also a fundamental element of conventional international environmental law.³⁵⁶ It may be the first step to subsequent negotiations in order to equitably balance the interests of the affected Parties.³⁵⁷ It may be done bilaterally or through competent international organizations.

Subparagraph (c) requires granting affected persons access to all relevant proceedings regarding the proposed activity. It is based on Article 14(4) (Physical and Legal Persons) and is similar to Article 57 (Non-Discrimination) of the Draft Covenant. The difference is that this provision applies before plans for an activity are implemented, while Article 57 applies after the harm takes place. The proceedings in question may include administrative licensing hearings, appeals from a decision to proceed with an activity, applications for injunctions, etc. The prohibition against discrimination on the basis of residence or nationality ensures that those outside the State of origin have the same rights, both procedural and substantive, as those within that State.³⁵⁸

³⁵⁴ See e.g., the role of the US-Canada International Joint Commission (established under the Boundary Waters Treaty (1909) and whose role was expanded in subsequent agreements on air and water quality); Article 12 of the River Niger Agreement (1964); and Article 3 of the Agreement between Spain and Portugal on Cooperation in Matters Affecting the Safety of Nuclear Installations in the Vicinity of the Frontier (1980).

³⁵⁵ Such information should include any reports on emergency planning, the factors leading to the decision on siting, information provided to the source Party's public, any preventive measures taken, as well as the results of the EIA. In cases of pollution, such information can include data on emissions and fluxes, relevant changes in national policy and industrial development, control technologies, projected cost of emission control, relevant meteorological, physicochemical, and biological data, and national, sub-regional, or regional policies on pollution control. See also the duty to exchange information in Article 49 (Information and Knowledge).

³⁵⁶ See e.g., Article 12 of the 1980 Athens Protocol to the Barcelona Convention; Article 4 of the ECE Industrial Accidents Convention (1992); Article 5 of the Espoo Convention (1991); Article 5 of the LRTAP Convention (1979); and Article 14(1)(c) of the Convention on Biological Diversity (1992). See also *Lac Lanoux* arbitration; Principle 19 of the Rio Declaration (1992); and Article 18 of the ILC Draft Articles on International Liability (1994).

³⁵⁷ See e.g., the scheme proposed by Articles 18 and 20 of the ILC Draft Articles on Liability (1994) and Article 12 of the WCED Legal Principles (1986).

³⁵⁸ The notion of equal access is most firmly developed in Article 3 of the Nordic Convention (1974), but also appears in the Article 2(6) of the Espoo Convention (1991), and Article XII of the Boundary Waters Treaty (1909); and Article 32 of the Watercourses Convention. See also Covenant Article 54(1). It has been recommended in OECD Recommendations C(74) 224 and C(77) 28; UNEP Principle 14 of the 1978 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; Guideline 16(c) of the 1985 Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-Based Sources; and Article 20 of WCED Legal Principles (1986).

Subparagraph (d) recognizes the need for authorization as already expressed in the 1974 Nordic Environment Protection Convention (Articles 2-6 regarding the permissibility of environmentally harmful transboundary activities) as well as in the 1991 Espoo Convention on Environmental Impact Assessment in a Transboundary Context (Article 6 regarding a final decision on proposed activities).

One of the most widely used techniques to prevent environmental harm is government authorization through permits, certification, or licensing.³⁵⁹ Activities or establishments considered environmentally hazardous are defined or listed and made subject to formal licensing procedures. Hazardous installations such as nuclear plants, mines, natural gas or petroleum works are likely to have more stringent licensing requirements. Prior authorization represents a middle ground between unregulated practices and absolute prohibition. As such, they provide an alternative to zoning as a means to site installations and allow experimentation through the granting of temporary licenses. Where environmentally hazardous substances are present, such as industrial chemicals, pesticides or pharmaceuticals, authorizations may be required at each step for the manufacture, use, marketing, importation or exportation of the product. Most authorization systems operate on the basis of a list, or an inventory of activities necessitating a permit because of their foreseeable potential harm to the environment. An essential condition for initial and continuing authorization is compliance with certain environmental standards. These conditions are reviewed periodically and should require use of the best available techniques; compliance with obligations under national or international law relating to environmental protection; compliance with limits or requirements and achievement of quality standards or objectives prescribed by legislation; imposition of emission limits; and a requirement of advance notification of any proposed change in the operations of the activity or process.

ARTICLE 38

PRIOR INFORMED CONSENT

Prior to the export of domestically prohibited or internationally regulated hazardous substances and waste, as well as genetically-modified organisms for release into the environment, Parties shall require the prior informed consent of importing and, where appropriate, transit States.

³⁵⁹ See, e.g. the Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft (Feb. 15, 1972); the Paris Convention for the Prevention of Marine Pollution from Land-Based Sources (June 4, 1974), the Bonn Convention on Protection of the Rhine against Chemical Pollution (Dec. 3, 1976), CITES (March 3, 1973), the Basel (March 22, 1989) and Bamako (Jan. 29, 1991) Conventions on Hazardous Waste, the London Dumping Convention (Dec. 20, 1972), MARPOL (Feb. 17, 1978), UNCLOS (Dec. 10, 1982), the regional seas agreements, the Whaling Convention (Dec. 2, 1946), the Antarctic Treaty (Dec. 1, 1959), and the African (Sept. 15, 1968) and ASEAN (July 9, 1985) Agreements on Conservation of Nature and Natural Resources.

Prior informed consent is increasingly required for trade in hazardous substances and products. In 1983, the United Nations General Assembly declared that:

...products that have been banned from domestic consumption and/or sale because they have been judged to endanger health and the environment should be sold abroad by companies, corporations or individuals only when a request for such products is received from an importing country or when the consumption of such products is officially permitted in the importing country.³⁶⁰

UNEP's London Guidelines for the Exchange of Information on Chemicals in International Trade (1987) defines prior informed consent as

...the principle that international shipment of a chemical that is banned or severely restricted in order to protect human health or the environment should not proceed without the agreement, where such agreement exists, or contrary to the decision, or the designated national authority in the importing country.

Three global environmental agreements rely on a form of prior informed consent: the 1989 Basel Convention on Transboundary Movements of Hazardous Wastes, the 1998 Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, and the 2000 Biosafety Protocol to the 1992 Convention on Biological Diversity. The CBD itself calls for access to genetic resources on agreed terms and requires that such access be subject to the prior informed consent of the provider country of such resources (Art. 15(5)). The modalities of the PIC process as applied to access to genetic resources were elaborated through the Bonn Guidelines adopted by Decision VI/24 of the sixth Conference of the Parties April 2002. UNCLOS suggests a procedure for scientific research within a State's exclusive economic zone, specifying that foreign vessels obtain prior State consent. The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade requires that prior to the export of domestically prohibited goods or hazardous wastes or other internationally regulated hazardous substances, Parties shall seek the prior informed consent of importing and, where appropriate, transit States.

ARTICLE 39

TRANSBOUNDARY NATURAL RESOURCES

Parties shall cooperate in the conservation, management and restoration of natural resources in areas under the jurisdiction of more than one State, or fully or partly in areas beyond the limits of national jurisdiction. To this end, based *inter alia* on the ecosystem approach:

- (a) **Parties sharing the same natural system shall make every effort to manage that system as a single ecological unit notwithstanding national**

³⁶⁰ UNGA Res. 37/137 (1983), Para. 1.

boundaries. They shall cooperate on the basis of equity and reciprocity, in particular through bilateral and multilateral agreements or arrangements, in order to develop harmonized policies and strategies covering the entire system and the ecosystems it contains.

With regard to aquatic systems, such agreements or arrangements shall cover the catchment area, including the adjoining marine environment and recharge and discharge areas in the case of aquifers.

- (b) **Parties sharing the same species or population, whether migratory or not, shall make every effort to treat such species or population as a single biological unit. They shall cooperate, in particular through bilateral and multilateral agreements, in order to maintain the species or population concerned in a favourable conservation status. In the case of a harvested species or population, all the Parties that are range states of that species or population shall cooperate in the development and implementation of a joint management plan to ensure the sustainable use of that resource and the equitable sharing of the benefits deriving from that use.**

Article 39 aims at achieving better protection for transboundary natural resources. It addresses two situations: shared natural resources and resources beyond national jurisdiction. The international challenge of coordination between the relevant actors is more complicated in the case of resources beyond national jurisdiction where the potential for new entrants is always present.

Where no regulation exists, particularly in areas beyond national jurisdiction, natural resources are vulnerable to a phenomenon popularly referred to as the “tragedy of the commons”. Resources become depleted or exhausted as each State, due to the pressures of international competition, seeks to maximize its own benefit by exploiting the resources. International cooperation is required to prevent this result. Unilateral action to protect these resources cannot succeed.

In establishing the basis for cooperative efforts, this provision attempts to conserve natural resources to ensure their sustainable exploitation and to protect their integrity *per se*. Existing international law on this vital issue is piecemeal and uneven, dealing mostly with the issue of transboundary waters³⁶¹ and their living resources.³⁶² A number of treaties have been concluded on the

³⁶¹ E.g., ECE Transboundary Watercourses Convention (1992); Boundary Waters Treaty (1909); Rhine Chemicals Convention (1976). See the Watercourses Convention (1997) and the Danube Convention (1994) which in Article 1 defines Danubian States as states “sharing a considerable part of the hydrological catchment area of the Danube River”. A considerable part is presumed if it exceeds 2000 square kms of the total hydrological catchment area. Catchment area means the hydrological river basin. There has also been a substantial amount of international litigation on international waterways, e.g., *River Oder*, *River Meuse*, and *Lac Lanoux* cases.

³⁶² See e.g., Articles 63 and 64 of UNCLOS (1982); and generally Rhine Fishing Convention (1885); Whaling Convention (1946); Antarctic Marine Living Resources Convention (1980); *Behring Seals* arbitration, *Fisheries Jurisdiction* case.

management of air quality³⁶³ and migratory species.³⁶⁴ But effective regulation of transboundary resources must cover activities affecting all environmental media and sectors. A general “soft law” instrument on this topic was drawn up under the auspices of UNEP in 1978.³⁶⁵

At root, Article 39 stems from the general obligation of States to cooperate with each other, contained in Article 13 (States).³⁶⁶ It balances the sovereign rights of States over their resources (Article 13(1)) with their duty to protect the global environment as a “common concern” (e.g., Article 3 (Common Concern of Humanity)). In this regard, it appears, on the basis of State practice, that a rule of customary international law has emerged requiring States to cooperate in the conservation and management of transboundary natural resources, although its operational aspects have not yet crystallized.³⁶⁷

Transboundary natural resources should be conserved and managed so as to yield sustainable benefits to present generations, while maintaining the potential to meet the needs and aspirations of future generations.³⁶⁸ This entails preservation, maintenance, and enhancement of such resources. “Restoration” refers to action to rehabilitate, repair and return to former levels the resources covered by this Article. The most effective way to carry out each of these functions is to establish appropriate institutions.³⁶⁹

Subparagraph (a) requires Parties to manage shared natural systems as ecological units, through the conclusion of agreements that harmonize and develop policies and strategies. This entails protecting the integrity of each ecosystem as a whole as well as all its component parts through adopting an integrated approach. An “ecosystem” should be thought of as the complex of relationships between all living beings and their non-living environment. The focus on ecosystems³⁷⁰ results from a recognition that rules on the component parts of the environment are bound to fail

³⁶³ Climate Change Convention (1992); the 1987 Montreal Protocol to the Geneva Convention on the Ozone Layer; LRTAP Convention (1979); and US-Canada Air Quality Agreement (1991).

³⁶⁴ Convention on Migratory Species (1979), Berne Convention on European Wildlife (1979), Birds Convention (1950), EC Council Directive on the Conservation of Wild Birds (1979), Polar Bears Agreement (1973), and the Convention on Biological Diversity (1992).

³⁶⁵ Draft 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. See also Article 18 of WCED Legal Principles (1986), Principle 21 of Stockholm Declaration (1972) and Principle 2 of Rio Declaration (1992).

³⁶⁶ Article 5 of the Convention on Biological Diversity (1992) also echoes this sentiment.

³⁶⁷ See e.g., *Behring Sea Fur Seals and Fisheries Jurisdiction* cases. See also Article 8 of the WCED Legal Principles (1986).

³⁶⁸ See also Article 5 (Equity and Justice) of the Draft Covenant.

³⁶⁹ E.g., Commission for the Conservation of Antarctic Marine Living Resources and International Whaling Commission.

³⁷⁰ See, especially Articles I and II of Antarctic Marine Living Resources Convention (1980), but also see Article II of the Polar Bears Agreement (1973), Article 2(2)(d) of ECE Transboundary Watercourses Convention (1992), and, generally, the Convention on Biological Diversity (1992). See, in addition to

when the system as a whole breaks down. The components can only be conserved through protection of the entire supporting environment. One crucial factor in achieving such protection is the use of best available technologies for activities that impact on these resources.³⁷¹ One technique in the international protection of ecosystems is the establishment of “specially protected” or “particularly sensitive” areas.³⁷²

Aquatic systems are singled out for special attention on account of their special significance, requiring agreements to cover entire catchment areas including the adjoining marine environment. The Watercourses Convention (1997) establishes a basic framework for cooperation. Article 5 requires equitable and reasonable utilization. In particular, they should use and develop the watercourse to obtain optimal and sustainable utilization thereof and benefits therefrom consistent with adequate protection of the watercourse. All watercourse States should participate in the use, sustainable development and protection of an international watercourse in an equitable and reasonable manner, which includes both the right to utilize the watercourse and the duty to cooperate in the protection and development thereof.

Regarding non-living resources, there is a long history of efforts at legal regulation. Numerous early bilateral treaties deal with international watercourses. In recent times, such efforts have expanded to include the high seas,³⁷³ the atmosphere,³⁷⁴ outer space,³⁷⁵ and resources in Antarctica.³⁷⁶ The international regulation of such resources is often bedevilled by social, political and scientific complexities. Hence, it has often proved advantageous to establish joint institutions, such as commissions, to handle day-to-day matters.³⁷⁷ Such institutions not only provide a venue for the conduct of authoritative scientific research, they are a focal point for the international relations of the parties concerned, particularly for notification and consultation concerning uses which may pose risks to the resource, and for developing regimes of equitable utilization.³⁷⁸ Such institutions can, in addition, help prevent international disputes, especially when conflicting uses require accommodation.

the Treaties concerning Antarctica, the Convention Concerning the Protection of the Alps (1991) with its Protocols, and the Arctic Environmental Protection Strategy.

³⁷¹ Principle 11 of the World Charter for Nature (1982).

³⁷² Article III of the African Convention (1968); See also Western Hemisphere Convention (1940); ASEAN Agreement (1985); 1982 Geneva Protocol Concerning Mediterranean Specially Protected Areas to the Barcelona Convention; 1991 Madrid Protocol to the Antarctic Treaty.

³⁷³ E.g., UNCLOS (1982) and MARPOL Convention (1973).

³⁷⁴ E.g., LRTAP Convention (1979), Vienna Convention on the Ozone Layer (1985), the 1987 Montreal Protocol to the Vienna Convention on the Ozone Layer, and the Climate Change Convention (1992).

³⁷⁵ E.g., Nuclear Test Ban Treaty (1963), Outer Space Treaty (1967) and the Moon Treaty (1979).

³⁷⁶ Madrid Protocol (1991) to the Antarctic Treaty.

³⁷⁷ Examples of this are numerous: Canada-US Joint Commission, Rhine Commission, OSPAR Commission, River Niger Commission, and the committees established under the Antarctic Treaty system.

³⁷⁸ E.g., Article IX of the North Pacific Seals Convention (1957), where only the US and the USSR can seal, but a percentage of their take is to be delivered to Japan and Canada.

Subparagraph (b) focuses on shared species or populations, because cooperation between States in protecting migratory species is vital for their survival.³⁷⁹ Maintaining such species or populations in a favourable conservation status requires that: (a) exploitation be permitted only on a rational basis taking into account scientific advice;³⁸⁰ (b) the entire range of the species be regulated,³⁸¹ and (c) all ecological factors affecting species and habitat be considered.³⁸² Thus, compliance with this provision requires, for example, the conservation of wetlands in order to protect migratory waterbirds.³⁸³

It also requires that Parties jointly elaborate management plans in the case of harvestable transboundary biological resources, to ensure that these resources are exploited on a sustainable basis. The developing of management plans implies considering all threats to the resource. At a minimum, this will require consideration of the need to establish quotas and seasons for permissible taking, as well as the need to counter indirect threats, such as habitat loss, threats to associated species, and international trade. It is preferable that management plans be legally binding, but if this is not practicable in particular instances, States should nonetheless ensure that they are established in such a way as to command broad adherence. One method of creating popular legitimacy for the plan is to convene public hearings for communities and industries involved in the exploitation of the resources in question, permitting the public to have an input in the drafting process. Popular legitimacy for the process will be further enhanced if it is designed to lead to an equitable sharing of benefits.³⁸⁴

PART VIII. IMPLEMENTATION AND COOPERATION

This is the operational section of the Draft Covenant, setting forth the detailed national and international measures required of Parties. It includes legal procedures, scientific and management measures, and provisions for financial and technological sharing. Like other parts of the Draft Covenant, it affirms the need for public participation and information. All the measures are progressive and their implementation should keep pace with the evolution of environmental and developmental problems and conditions. The inclusion of the word cooperation in the title to this part reflects its

³⁷⁹ The obligation to cooperate is rooted in both customary and treaty law. Examples of the latter include especially the Convention on Migratory Species (1979) and Agreements adopted under it; Interim Convention on the Conservation of North Pacific Fur Seals, as amended; International Convention for the Conservation of Atlantic Tunas (1966); Article VII of the Western Hemisphere Convention (1940) and Article 10 of the Berne Convention on European Wildlife (1979). Also see UNGA Resolutions 2995(XXVII) and 2996(XXVII).

³⁸⁰ E.g., as done by the International Whaling Commission.

³⁸¹ See Article 2 of the Convention on Migratory Species (1979).

³⁸² See Berne Convention on European Wildlife (1979) and EC Council Directive on the Conservation of Wild Birds (1979).

³⁸³ This is required under Article 3 of the Ramsar Convention (1971).

³⁸⁴ Cf. Article 48 (Sharing Benefits of Biotechnology).

overarching importance to the implementation of all obligations in the Draft Covenant, as well as its importance as a principle of general international law. In the *Pulp Mills* judgment of April 20, 2010, the International Court of Justice recalled that, according to customary international law as reflected in Article 26 of the 1969 Vienna Convention on the Law of Treaties, “[e]very treaty in force is binding upon the parties to it and must be performed by them in good faith”. That norm applies to all obligations established by a treaty, including procedural obligations which are essential to co-operation between States.

ARTICLE 40

ACTION PLANS

Parties shall prepare and periodically review and update national and, as appropriate, bilateral or regional action plans, with targets and timetables, to meet the objective of this Covenant.

Article 40 mandates that each Party establish action plans to meet the objective of the Draft Covenant. Environmental management in many countries is based on local and regional action plans.³⁸⁵ The content of such plans must be systematic and specific, which explains the reference to targets and timetables. The wording of this provision leaves open the issue of whether these targets and timetables are to be determined nationally or internationally. If the latter route is chosen, this might be done by way of the Review Conference (Article 70). Alternatively it may be decided by each individual Party at its discretion.³⁸⁶ Whichever path the Parties to the Draft Covenant adopt, its effectiveness should be a matter taken up at each Review Conference. Elaborating action plans can facilitate effective and informed public participation (Article 14(3) (Physical and Legal Persons)). Ideally, this process can help to consolidate a national consensus around implementing the Draft Covenant.³⁸⁷ The plans can also form the basis of each Party’s national reports (Article 67 (Reporting)). A further and fundamental benefit is that Parties may identify their sustainable developmental potential and needs. This determination will facilitate effective implementation of many of the Draft Covenant’s obligations.

The necessity to update action plans emphasises the dynamic character of this obligation. The title is not intended to exclude the possibility of international action plans where appropriate,

³⁸⁵ Article 10 of the Desertification Convention (1994) calls for national actions plans and Article 11 calls for sub-regional and regional action plans.

³⁸⁶ There are precedents in international law for both approaches: (1) the 1987 Montreal Protocol clearly establishes targets and timetables in the body of its text and allows the Conference of the Parties to make adjustments as necessary; whereas (2) the Climate Change Convention (1992) leaves it to the discretion of each Party (see Article 4(2)). Note too the obligation in the Convention on Biological Diversity (1992) on Parties to develop strategies, plans or programmes on the conservation and sustainable use of biological diversity (Article 6(a)) and the recommendation in Agenda 21 (1992) and Principle 3 of the Forest Principles (1992) that governments adopt sustainable development strategies.

³⁸⁷ See also Paragraph 37.5 of Agenda 21 (1992).

of which the Stockholm Plan of Action (1972) and Agenda 21 (1992) are the leading examples. Bilateral or regional ones may also be appropriate.

ARTICLE 41

PHYSICAL PLANNING

- 1. Parties shall establish and implement integrated physical planning systems, including provisions for infrastructure and town and country planning, with a view to integrating conservation of the environment, including biological diversity, into social and economic development.**
- 2. In such planning, Parties shall take into account natural systems, in particular aquifers, drainage basins, coastal and marine areas and any other areas constituting identifiable ecological units.**
- 3. Parties shall take into account the natural characteristics and ecological constraints of areas when allocating them for municipal, agricultural, grazing, forestry, or other use.**

Article 41 requires Parties to establish physical planning systems as a means of integrating environmental and developmental objectives (see Article 16 (Integrated Policies)). It is based on the assumption that sustainable development requires maintaining the functions and carrying capacities of natural systems.³⁸⁸ As such, it calls for an integrated approach to land-use.³⁸⁹

Paragraph 1 lays down the basic principle underlying this Article and applies it to all forms of physical planning. To illustrate, two examples are mentioned on account of their particular significance. Planning should apply to all forms of infrastructures, such as highways, railways, waterways, dams, harbours, etc. Town and country planning includes land-use plans elaborated at all levels of government.

Paragraph 2 requires that ecological systems be taken into account. As stated in Article 24 (Ecosystem Approach), natural systems constituting identifiable ecological units must be viewed as single units for purposes of physical planning, irrespective of administrative boundaries within a country.³⁹⁰ Two examples are highlighted for special mention, namely drainage basins and coastal areas and their adjacent waters. Drainage basins, or watersheds, should be considered single plan-

³⁸⁸ See e.g., Principles 7 and 16 of the World Charter for Nature (1982).

³⁸⁹ See Chapter 10 of Agenda 21 (1992).

³⁹⁰ This notion is contained in several legal precedents: Article 3(1) of the Ramsar Convention (1971); Article 6(b) of the Convention on Biological Diversity (1992) and most comprehensively in Article 12 of the ASEAN Agreement (1985). See also Paragraph 10.7(a) of Agenda 21 (1992). For transboundary natural systems see Article 39 of this Draft Covenant.

ning units because events upstream have downstream effects.³⁹¹ Coastal areas and the adjacent waters also form ecological units, but often the administrative split between land and sea makes effective management of such areas as units difficult if not impossible. This paragraph aims to cure that situation.

Paragraph 3 is based on Paragraph 10.5 of Agenda 21, which seeks to “facilitate allocation of land to the uses that provide the greatest sustainable benefits and to promote the transition to a sustainable and integrated management of land resources”.³⁹²

ARTICLE 42

ENVIRONMENTAL IMPACT ASSESSMENT

- 1. Parties shall establish or strengthen environmental impact assessment procedures to ensure that all activities and technologies which pose significant risks or are likely to have a significant adverse effect on the environment are evaluated before they are authorized.**
- 2. The assessment shall include scientifically sound evaluation of:**
 - (a) all effects, including cumulative, long-term, indirect, long-distance, and transboundary effects;**
 - (b) alternatives, including not conducting the proposed activity; and**
 - (c) measures to avert, minimize or offset the potential adverse effects.**
- 3. Parties shall designate appropriate national authorities to ensure that environmental impact assessments are conducted under procedures that are open, transparent, effective and accessible to concerned States, international organizations and physical and legal persons. Parties shall also ensure that the authority deciding on approval takes into consideration all observations made during the environmental impact assessment process and makes its final decision public.**
- 4. Parties shall conduct periodic reviews both to determine whether activities approved by them are carried out in compliance with the conditions set out**

³⁹¹ E.g., deforestation in the upper reaches of an estuary may cause siltation in the estuary of the main stream, and dams may adversely affect water regimes or prevent siltation essential to the maintenance of deltas.

³⁹² See also Principles 13 and 14 of the Stockholm Declaration (1972) and Principle 9 of the World Charter for Nature (1982).

in the approval and to evaluate the effectiveness of the prescribed mitigation measures. The results of such reviews shall be made public.

- 5. Parties shall conduct strategic environmental assessment of any policies, programmes and plans that are likely to have a significant adverse effect on the environment and shall ensure that their environmental consequences are duly taken into account.**

Environmental Impact Assessments (EIAs) are a feature of modern domestic³⁹³ and international³⁹⁴ environmental law. First established in the United States under the National Environmental Policy Act, EIAs are universally recognized as a fundamentally important process in the achievement of two results: (1) to inform decision-makers of the environmental consequences of their decisions³⁹⁵ and (2) to integrate environmental matters into other spheres of decision-making.³⁹⁶ The latter purpose recalls the obligation of integrating environment and development (Article 16 (Integrated Policies)). Strategic Environmental Evaluation (SEE) or strategic environmental assessment (SEA) is an advanced form of impact assessment procedure that was developed by the World Bank. It is a comprehensive and integrated process for evaluating environmental plans, policies and programmes along with the social and economic impacts of a project early in the decision-making. A Protocol on Strategic Environmental Assessment (SEA) to the UNECE Convention on Environmental Impact Assessment in a Transboundary Context, adopted in Kiev in June 2003, clearly differentiates between assessment of two kinds of decision-making instruments: plans and programmes (Arts. 12, 14) and policies and legislation (Art. 13). Article 13 on strategic environmental assessment of policies and legislation includes a substantive obligation to consider and integrate environmental and health policies into proposed policies and legislation. The Framework Convention on the

³⁹³ A large number of jurisdictions have either adopted legislation or guidelines on their use. See also the recommendation in the Business Charter for Sustainable Development.

³⁹⁴ See especially Espoo Convention (1991), which is the most comprehensive international instrument on EIAs. In addition other instruments make reference to EIAs: e.g., Article 14(1)(a) of the Convention on Biological Diversity (1982); Article 4(1)(f) of the Climate Change Convention (1992), where it is a suggested means for complying with the provision; Article 206 of the UNCLOS (1982); Article XI of the Kuwait Regional Convention (1978); Article 13 of the West and Central African Marine Environment Convention (1981); Article 10 of the South-East Pacific Marine Environment Convention (1981); Article 14 of the ASEAN Agreement (1985). There are also several “soft law” instruments which call for EIAs: Principle 17 of Rio Declaration (1992). This is also complied in UNGA Resolution 2995 (XXVII) on Cooperation between States in the Field of the Environment (1972); Principles 11(b) and (c) of the World Charter for Nature (1982); UNEP Goals and Principles of Environmental Impact Assessment (1987); note that Article 5 of the WCED Legal Principles (1986) suggests EIAs are an emerging principle of international law.

³⁹⁵ See e.g., UNEP Goals and Principles of Environmental Impact Assessment (1987).

³⁹⁶ This is identified in Paragraph 8.2 of Agenda 21 (1992) as an important objective and EIAs are pinpointed as a crucial means of achieving this.

Protection and Sustainable Development of the Carpathians (2003) requires its Parties to apply, where necessary, “risk assessments, environmental impact assessments, and strategic environmental assessments, taking into account the specificities of the Carpathian mountain ecosystems, and ... consult on projects of transboundary character in the Carpathians, and assess their environmental impact, in order to avoid transboundary harmful effects”. (Art. 12(1)).

A subsidiary but still important purpose of EIAs is to allow governments to inform, and hear the views of, the interested public on particular activities.³⁹⁷ As such, this provision should be read in conjunction with the obligations to allow public participation (Article 14(3) (Physical and Legal Persons)), and to provide environmental information (Article 49 (Information and Knowledge)), a prerequisite to meaningful public participation. The importance of EIAs was highlighted by the UNEP Legal Experts Group on the Montevideo Programme which added a programme area to promote the widespread use of EIAs.

EIAs are essential means of complying with the fundamental principles of Prevention (Article 6) and Precaution (Article 7). In addition, in the context of transboundary environmental harm, they form part of each State’s obligation under general international law not to knowingly cause harm to other States.³⁹⁸ As implementation of some of the EIA requirements demands significant resources, Article 52 (International Financial Resources) on transferring financial resources is relevant.³⁹⁹ This is one notable area where States can seek to pursue policies expressed in this Draft Covenant in international organizations of which they are members (Article 16(3) (Integrated Policies)).⁴⁰⁰

Article 42 sets out differing requirements depending on whether the matter in question is an activity (or project), policy, or plan.

Paragraph 1 deals with activities, where the assessment requirements are most rigorous. This provision applies to both public activities and to private ones requiring governmental approval, whether on the territory of the particular State or otherwise.⁴⁰¹

The triggering element for the EIA requirement is a determination that the activity is “likely to have significant adverse effect on the environment”, in which case an EIA is to take place before each government grants approval. This standard was affirmed in the Rio Declaration,⁴⁰² after finding

³⁹⁷ E.g., Paragraph 8.4(f) of Agenda 21 (1992).

³⁹⁸ E.g., *Corfu Channel* case.

³⁹⁹ See also Article 202(c) of UNCLOS (1982).

⁴⁰⁰ Some international organizations already have EIA policies, see e.g., World Bank Operational Policy/Bank Procedure 4.01 (1999).

⁴⁰¹ Note that Article 6 of the Nordic Convention (1974) requires in certain circumstances each party to conduct an EIA for activities carried out in the territory of another party. See also Article 206 of UNCLOS (1982) on EIAs which applies to areas beyond national jurisdiction.

⁴⁰² Principle 17 of the Rio Declaration (1992).

acceptance in some regional instruments.⁴⁰³ Although “significant” is not defined, it involves consideration of both context and intensity,⁴⁰⁴ and is less than serious but greater than *de minimis* or appreciable.

The provision allows individual Parties the discretion as to which method of determining the presence of the triggering element best suits them. This pattern is well established and in effect sets up a two-step legal process for EIAs; the first determines whether the significant harm is likely, followed by a more extensive inquiry after such likelihood is found. State practice illustrates several possible options. One approach is to utilize a case-by-case procedure,⁴⁰⁵ although this is prone to raise controversies over individual decisions and possible protracted litigation. Another is to make reference to lists of activities that are deemed to trigger the EIA requirement.⁴⁰⁶ A third approach is to develop a list of sensitive areas or particularly pressing environmental problems. Any activity that adversely affects the area or exacerbates the problem will be deemed “significant”.⁴⁰⁷ A further approach is to create a presumption of significant environmental impacts for activities that cross a monetary threshold.⁴⁰⁸ Finally, it may be appropriate, in certain cases, to require EIAs when there is a change in ownership of an enterprise (activity).⁴⁰⁹ Whichever approach, or combination of approaches, is adopted, EIAs should be conducted at an early stage of planning.⁴¹⁰

Paragraph 2 contains a non-exhaustive list of factors which must be included in EIAs. **Subparagraph (a)** is drafted to ensure that all possible types of significant impacts are considered

⁴⁰³ E.g., Article 14(1) of the ASEAN Agreement (1985); Article 12(2) of the Wider Caribbean Marine Environment Convention (1983) and; Article 2(2) of the Espoo Convention (1991). See also EC Council Directive on the assessment of the effects of certain public and private projects on the environment (1985).

⁴⁰⁴ See e.g., regulations implementing the National Environmental Policy Act, (USA) 40 CFR § 1508.27 (1992).

⁴⁰⁵ E.g., this is the model adopted by the US National Environmental Policy Act, which involves an initial quick and informal assessment to determine if the threshold is reached.

⁴⁰⁶ EC Council Directive on the assessment of the effects of certain public and private projects on the environment (1985) mixes these two approaches in that Annex I contains a list of projects where EIA’s are required and Annex II is an illustrative list of projects where EIA’s are not required unless they are found to have “significant effects on the environment”.

⁴⁰⁷ See e.g., Article 1(b) of Appendix III of Espoo Convention (1991); Environmental Impact Assessment Act of 1990 of the Canary Islands; Act on Environmental Protection of 1986 of Greece; and Act on the Conservation of Natural Areas and of Wild Flora and Fauna of 1989 of France; and California Environmental Quality Guidelines.

⁴⁰⁸ E.g., Article 2 of the French Law on the Protection of Nature (1976) and Decree (1977). Note that the legislation addresses the possibility of developers seeking to evade the EIA requirements by sub-dividing their projects into smaller monetary units. The US approach for preventing segmentation may be useful here, in which the connectedness of actions is defined (see 40 CFR § 1508.25(a)(1) (1992)).

⁴⁰⁹ See e.g., New Jersey Environmental Cleanup Responsibility Act (USA), which requires the filing of a cleanup plan which implicitly includes an EIA, for the transfer or closing of hazardous wastes sites which must be approved by the Government. See also Article 8(3) of the 1991 Madrid Protocol to the Antarctic Treaty which requires EIAs for any change in an activity.

⁴¹⁰ See e.g., Principle 1 of the UNEP Goals and Principles of Environmental Impact Assessment (1987).

during the EIA process.⁴¹¹ “Effects” includes all significant impacts on the environment as a whole, as well as its components.⁴¹²

Experience has shown that the most difficult concept to incorporate into EIAs is “cumulative” effects. The term covers not only the incremental and synergistic impacts of several connected activities taken together, but also the aggregate effects of a single activity.⁴¹³ The focus should be on the connectedness of the impacts, rather than of the activities,⁴¹⁴ although it should include impacts from all related activities, even where individually the impacts would not be significant.⁴¹⁵ In this regard, the establishment of regional baselines as well as EIAs for programmes can be useful.

“Long-term” should be interpreted broadly, and is intended to be forward-looking over a period of several decades.⁴¹⁶ “Long-distance” can include transboundary⁴¹⁷ effects, but can also include internal ones.

Subparagraph (b) requires Parties to consider alternatives to the activity in question. This means all reasonable alternatives,⁴¹⁸ including the option of not conducting the activity.⁴¹⁹ **Subparagraph (c)** requires the identification of so-called “mitigation measures”. The grant of development permits should be conditional upon the carrying out of any such measures.

Paragraph 3 has several aspects. First, EIAs must be carried out in the desired manner by authority of some governmental institution, although the issue of who actually conducts the EIA

⁴¹¹ These effects are listed, *inter alia*, in Principle 4(d) of the UNEP Goals and Principles of Environmental Impact Assessment (1987) as among the minimum to be considered in an EIA.

⁴¹² Guidance is available from Article 1(vii) of the Espoo Convention (1991) which defines “impact” as:
...any effect caused by a proposed activity on the environment including human health and safety, flora, fauna, soil, air, water, climate, landscape and historical monuments or other physical structures or the interaction among these factors; it also includes effects on cultural heritage or socio-economic conditions resulting from alterations to those factors.

⁴¹³ This is the scope of the term provided for in the Regulations of the California Environmental Quality Act (USA).

⁴¹⁴ As the US 5th Circuit Court did in *Fritiofson v. Alexander* (1985).

⁴¹⁵ See e.g., *Kings County Farm Bureau v. City of Hanford* (USA).

⁴¹⁶ The same expression appears in Articles 35(3) and 55 of the Additional Protocol I (1977) to the 1949 Geneva Conventions, and was intended to be interpreted as such. It is to be contrasted with the term “long-lasting” in the ENMOD Convention (1976), which was intended to refer to a period encompassing several months, possibly a season (see Understanding on Article I submitted by the Committee of the Conference on Disarmament to the UN General Assembly).

⁴¹⁷ As in Part VII of the Draft Covenant, “transboundary” refers to effects which cross a national frontier, whether extending to another State or the global commons, as well as effects only in the global commons.

⁴¹⁸ The Espoo Convention (1991) identifies locational or technological variations as possible reasonable alternatives (Appendix II).

⁴¹⁹ This is an expressed alternative to consider in the Espoo Convention (1991) (Appendix II).

is left to the individual Party. The provision requires that those concerned have access to the EIA procedure.⁴²⁰ This will not require holding a full public hearing in every instance, but at minimum a sufficient notice and comment period is necessary to satisfy this provision. Also implicit in the term “accessible” is that all publicly available documents include a non-technical summary. This Paragraph also aims to ensure that the observations made during the EIA process are taken into account by the relevant decision-maker when determining whether the activity will proceed.⁴²¹ The requirement that the final decision be made public is to ensure public accountability, so that citizens can exercise any right of review, judicial or otherwise. The manner in which the decision is made public is left open, although in written form in official or mass media would likely have the widest audience.

Paragraph 4 requires periodic reviews in order to achieve two express goals: (1) measure compliance with the terms of the development permit; and (2) assess the adequacy of prescribed mitigation measures.⁴²² The former allows a State to follow up with enforcement or other compliance measures. The latter is more forward looking, designed to instruct future decision-makers which mitigation measures are likely to be effective. A third, unstated, objective is to evaluate whether environmental impacts have occurred as they have been predicted. The periodicity is to be determined by each State in accordance with the criteria of appropriateness and effectiveness. Consideration should be given to holding reviews at the request of the public or other States. Again, the public disclosure is designed to facilitate accountability.

Finally, **Paragraph 5** addresses policies, programmes and plans. These are not subject to as rigorous an assessment process as activities are, but in recognition of the significant environmental effects these may have, some evaluation before implementation is required.⁴²³ The results of any evaluation should be considered at the decision-making stage and any mitigation measures identified should be implemented.

⁴²⁰ The inclusion of States and international organizations in this list is intended to be for cases of potential transboundary environmental harm (see Article 37 (Transboundary Environmental Effects)).

⁴²¹ Article 6(1) of the Espoo Convention (1991) requires that “due account” be taken of the EIA.

⁴²² This provision is modelled on Article 7 and Appendix V of the Espoo Convention (1991).

⁴²³ This notion is a new one, but which has been recognized in international environmental law, e.g., Article 14(1)(b) of the Convention on Biological Diversity (1992), the EU Strategic Environmental Assessment Directive (2001/42/EC), and the ECE Protocol (to the 1991 Espoo Convention) on Strategic Environmental Assessment (2003). Note also that the EU has committed itself to environmental assessment of its own plans and programmes (EC Fifth Environmental Action Programme *Towards Sustainability* (1993)), manifested, for example, in the 1992 Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna. At the national level, France requires a “presentation report” for municipal land-use plans, which includes an initial analysis of the state of the environment and the effect of the plan on its evolution. In addition, the US has instituted assessments for grazing on Bureau of Land Management lands, and Ontario has recently environmentally reviewed its forestry project.

ARTICLE 43

ENVIRONMENTAL STANDARDS AND CONTROLS

1. **Parties shall cooperate to formulate, develop, and strengthen international rules, standards and recommended practices, as well as indicators on issues of common concern for the conservation of the environment and sustainable use of natural resources, taking into account the need for flexible means of implementation based on their respective capabilities.**
2. **Parties shall adopt, strengthen and implement specific national standards, including emission, quality, product, and process standards, designed to prevent or abate harm to the environment and to enhance or restore environmental quality.**

Article 43 concerns national and international standard-setting. The dynamic nature of this obligation is reflected in the use of the term “strengthen” in both paragraphs and the reference to enhancing environmental quality in Paragraph 2. The order of the paragraphs indicates that national standards should be based on international norms and that due account should be taken of non-binding recommendations and similar texts.

Like UNCLOS (1982) and other treaties,⁴²⁴ *Paragraph 1* of this Article obligates Parties to cooperate in the formulation of international rules and standards. There is a need for harmonization and coordination in addressing issues of common concern, in particular for protection of the global commons. This will avoid conflicts and competitive distortions and enhance the reduction or elimination of trade barriers. Although the norms to be adopted are to be jointly agreed, the needs of developing countries are taken into account in the call for flexible means of implementation. This corresponds to the concept of common but differentiated responsibilities enunciated at Rio (see Draft Covenant Article 12). To be noted is that, as far as possible, international standards should be based on achieving a higher level of environmental protection.⁴²⁵ Given their different ecological, social and economic circumstances, individual Parties should not be prejudiced in their right to set more stringent environmental standards, provided that they are not disguised barriers to trade (see Article 34(1) (Trade and Environment)).

On the national level, addressed in *Paragraph 2*, measures should address causes of environmental deterioration (products, processes and emissions) and mandate environmental quality.⁴²⁶ Standards should be both preventive and remedial.

⁴²⁴ Article 197 of UNCLOS (1982); Article 4(2) of the Barcelona Convention (1976); Article 2(1 and 2) of the North-East Atlantic Convention (1992).

⁴²⁵ See e.g., Article 191 of the Lisbon Treaty on the Functioning of the European Union (2009).

⁴²⁶ Cf. Principle 11 of the Rio Declaration (1992).

ARTICLE 44

MONITORING OF ENVIRONMENTAL QUALITY

1. **Parties shall conduct scientific research and establish, strengthen, and implement monitoring programmes for the collection of environmental data and information to determine, *inter alia*,**
 - (a) **the condition of all components of the environment, including changes in the status of natural resources and the ecologically sensitive areas; and**
 - (b) **the effects, especially the cumulative or synergistic effects, of particular substances, activities, or combinations thereof on the environment.**
2. **To this end and as appropriate, Parties shall cooperate with each other and with competent international organizations to develop expertise and infrastructure capable of establishing universally acceptable standards of environmental health.**
3. **Parties shall, at regular intervals, publish and disseminate a national report on the state of the environment, including information on the quality of and pressures on the environment.**

Scientific research is the basis of action for environmental protection. Reliable data on what is the environment, its status, its deterioration and the causes of such deterioration are indispensable for the adoption of the measures required by Article 43 (Environmental Standards and Controls) as well as for their effective implementation. The primary obligation is to develop and strengthen research on the national level.⁴²⁷ However, the dimensions of environmental problems are such that international cooperation is necessary in many cases, such as long-range air or river pollution, the protection of the ozone layer, international trade in endangered species, and the condition of the seas. On the other hand, all the States concerned do not have the capacity to conduct research. Unless they have the assistance of other States and appropriate international organizations, they will be unable to fulfil this obligation. Thus the duty to cooperate is reiterated in Paragraph 2.

ARTICLE 45

CONTINGENCY AND EMERGENCY PLANNING

Parties shall evaluate the risk of environmental emergencies. They shall individually or jointly with other states and, where appropriate, in cooperation with

⁴²⁷ For a similar requirement in the context of waste management, see Article 19 of the Cairo Guidelines on Hazardous Wastes (1987).

competent international organizations, build their capacity to evaluate risks of environmental emergencies. They shall individually and jointly develop contingency plans for environmental emergencies and other natural disasters and put in place logistical materials, personnel and strategies in readiness for effective and timely response.

This provision is closely related to Article 18 (Emergencies). It is concerned with the precautionary measures that are necessary to evaluate the risk of and anticipate an emergency, including measures to enhance the capacity to take responsive action should an emergency occur. It thus takes a long-range approach, in contrast to Article 18 whose focus is on notification of potentially affected States once an emergency has arisen and on mitigation and response measures. It requires States to evaluate the potential for environmental emergencies stemming from activities under their jurisdiction. Where risk exists, they must cooperate with all potentially affected States, including non-Parties, and relevant international organizations to develop contingency plans for such an emergency. The precedents for this article are those cited for Article 18.

ARTICLE 46

SCIENTIFIC AND TECHNICAL COOPERATION

- 1. Parties shall promote scientific and technical cooperation in the field of environmental conservation and sustainable use of natural resources, particularly developing countries. In promoting such cooperation, special attention should be given to the development and strengthening of national capacities, through the development of human resources, legislation and institutions.**
- 2. Parties shall:**
 - a) cooperate to establish comparable or standardized research techniques, harmonize international methods to measure environmental parameters, and promote widespread and effective participation of all States in establishing such methodologies;**
 - b) exchange, on a regular basis, appropriate scientific, technical and legal data, information and experience, in particular concerning the status of biological resources; and**
 - (c) inform each other on their environmental conservation measures and endeavour to coordinate such measures, especially with respect to transboundary natural resources.**

To facilitate the monitoring required in Article 44 (Monitoring of Environmental Quality), Article 46 calls for the cooperation of Parties in scientific research and the sharing of the results of research. This is not an innovation, because such cooperation exists in fact at the intergovernmental level, as well as in the academic and scientific communities of different countries. It is also

required by numerous treaties on environmental protection and sustainable development.⁴²⁸ Article 46 stresses the global nature of the obligation, particularly for the benefit of developing countries which may lack the human and material resources at present for scientific research and technological development. This also may include transfer of environmentally sound technology as dealt with in Article 47 (Development and Transfer of Technology).

Paragraph 1 is based on Article 18(2) of the Convention on Biological Diversity (1992). The emphasis on cooperation with developing countries is in recognition of the vast technological gap between the industrialized and developing worlds. The express intent of the provision is that developing countries can improve their national capacities through such cooperation.⁴²⁹

Paragraph 2 establishes essential aspects of scientific and technical cooperation. The rationale for **subparagraph (a)** is that it is impossible to adequately assess the state of the global environment and to remedy its deterioration without a degree of standardization and harmonization of research techniques, data, and methodologies.⁴³⁰ Given the importance of this objective, the call for “widespread and effective participation of all States” implies the provision of financial and technical assistance e.g., to, allow developing countries to send qualified representatives to all the international meetings.⁴³¹ Secondly, **subparagraph (b)** sets forth the requirement that the exchange of general information must be regular, which suggests an ongoing and systematic process.⁴³² “Appropriate”, in this case means in relation to the objective of the Draft Covenant. A formalized system of information exchange might, in some circumstances, prove the most effective.⁴³³ **Subparagraph (c)** implies a slightly more stringent obligation than the previous subparagraph, in that the requirement to “inform” each other about environmental conservation measures suggests that this be done as soon as they are enacted.⁴³⁴ Although Parties are left with the discretion as to the

⁴²⁸ See e.g., Article 4(1)(g) and (h) of the Climate Change Convention (1992); Article 200 of UNCLOS (1982) and Articles 7 and 8 of the LRTAP (1979).

⁴²⁹ See e.g., Article 5 of the Climate Change Convention (1992); Articles 202(a) and 203 of UNCLOS (1982); Article 7 of the WCED Legal Principles (1986); Principles 9 and 12 of Stockholm Declaration (1972) and Principle 9 of the Rio Declaration (1992).

⁴³⁰ See e.g., Article 18(2) of the ASEAN Agreement (1985), Basket 2(5) of the Helsinki Final Act (1975), Paragraphs 40.8 and 40.9 of Agenda 21 (1992). See also Article 44(2) (Monitoring of Environmental Quality) of the Draft Covenant.

⁴³¹ See Article 200 of UNCLOS (1982).

⁴³² Exchange of data is related to Article 49 (Information and Knowledge), and is a feature in many treaties, e.g., Article 7(1) of the Agreement between Poland and the USSR Concerning the Use of Water Resources in Frontier Waters (1964); Article VI of the Indus Waters Treaty Between India and Pakistan (1960); Article 2(c) of the River Niger Agreement (1964); Article 18(2)(d) of the ASEAN Agreement; Article 10 of the Basel Convention (1989). See also Principle 20 of the Stockholm Declaration (1972).

⁴³³ See e.g., Article 18(3) of the Convention on Biological Diversity (1992), which establishes a clearing-house mechanism to promote and facilitate technical and scientific cooperation.

⁴³⁴ See Article 4(1)(h) of the Climate Change Convention (1992).

appropriate content and form of this information, the importance of the particular subject matter should be a useful criterion. “Environmental conservation measures” should be interpreted broadly to encompass all measures relating to the Draft Covenant.⁴³⁵

ARTICLE 47

DEVELOPMENT AND TRANSFER OF TECHNOLOGY

Parties shall encourage and strengthen cooperation and establish joint research programmes and ventures for the development and use, as well as access to and transfer of, environmentally sound technologies on mutually agreed terms, with a view to accelerating the transition to sustainable development.

Article 47 looks to the development and transfer of technology as a means to achieve sustainable development.⁴³⁶ This technology is to be “environmentally sound” and should aim to reflect the state-of-the-art, although traditional technologies are also to be included. These technologies include “process”, “product”, and “end-of-pipe”, and include know-how, procedures, goods, services, equipment, and managerial procedure.⁴³⁷ Such transfers should be placed in the framework of joint research programmes and joint ventures, crafted to combine the strengths of the participants and build capacity to strengthen areas of weakness.⁴³⁸ All Parties should effectively draw on the experience and advice of the private sector, especially scientists, business, and non-governmental organizations, in determining their policies with regard to transfer of technology.

Effective technology transfer can be greatly enhanced by regular exchange of information, which allows Parties to know what is the state-of-the-art, as well as the sources and environmental risks of such technology.⁴³⁹ Information clearinghouses can help Parties identify what their particular technological needs are and how they can be accommodated.⁴⁴⁰ In addition, technical assistance should take place as appropriate in respect of assessing what each Party needs, what is “environ-

⁴³⁵ Accordingly, this provision also relates to others in the Draft Covenant, such as Articles 28 (Pollution), and 39 (Transboundary Natural Resources).

⁴³⁶ This Article is standard in recent international environmental treaties: see e.g., Article 4(2) of the Vienna Convention on the Ozone Layer (1985); Article 5(2) of the 1987 Montreal Protocol; Article 4(5) of the Climate Change Convention (1992); Article 144 and Part XIV of UNCLOS (1982); and Article 10(d) of the Basel Convention (1989). Also, see Articles 4 and 5 of the Cairo Guidelines on Hazardous Wastes (1987) which include specific provisions for international cooperation in the development and transfer of environmentally sound technologies, and Article 17 of the Desertification Convention (1994).

⁴³⁷ Paragraphs 34.2 and 34.3 of Agenda 21 (1992).

⁴³⁸ See Article 46 (Scientific and Technical Cooperation). See also Article 18(5) of the Convention on Biological Diversity (1992).

⁴³⁹ See Paragraph 34.15 of Agenda 21 (1992).

⁴⁴⁰ See Paragraphs 34.16 and 34.17 of Agenda 21 (1992).

mentally sound”, and how specific technologies can be used.⁴⁴¹ Capacity-building should also take place so that developing countries can further develop technologies in which they have a comparative advantage, particularly through joint ventures with Parties in industrialized countries.⁴⁴²

Although not mentioned expressly, this provision contemplates the exchange of environmentally sound technologies between all Parties, but especially to developing countries. The phrase “encourage and strengthen” suggests that in respect of developing countries, the terms of transfer should be favourable.⁴⁴³ The reference to “mutually agreed terms” implies that such transfers be the subject of negotiations, *inter alia*, to satisfy the needs of developing countries, but also to ensure adequate protection of relevant intellectual property rights.⁴⁴⁴ Where intellectual property rights exist, Parties should explore the use of economic incentives (see Article 16 (Integrated Policies) to encourage appropriate transfers.⁴⁴⁵ There are, however, many relevant and useful technologies already in the public domain, and therefore free for Parties to directly transfer.

ARTICLE 48

SHARING BENEFITS OF BIOTECHNOLOGY

Parties shall provide for the fair and equitable sharing of benefits arising out of biotechnologies based upon genetic resources with States providing access to such genetic resources on mutually agreed terms.

Article 48 is largely based on Article 15(7) of the Convention on Biological Diversity, the first legally binding international instrument to require the “fair and equitable” sharing of benefits arising out of biotechnologies. It is premised on the notion that genetic resources form part of the natural resources over which States have sovereign rights. The present provision is stronger than the Convention on Biological Diversity in requiring a specific result, whereas that Convention asks Contracting Parties to take measures *which aim* at fair and equitable sharing.

“Benefits”, in this context, might include: research and development results, commercial or other benefits (e.g. royalties) derived from utilizing the genetic resources provided, access and transfer of technology using such resources,⁴⁴⁶ participation in biotechnological research activities

⁴⁴¹ See Paragraphs 34.22-34.24 and 34.26 of Agenda 21 (1992).

⁴⁴² See Paragraph 34.20 of Agenda 21 (1992). See also Paragraph 34.27 of Agenda 21 (1992), which emphasises the positive roles multinational corporations can play in this regard.

⁴⁴³ See Article 16(2) of the Convention on Biological Diversity (1992) and Paragraph 34.4 of Agenda 21 (1992). See also Article 52(1) (International Financial Resources) of the Draft Covenant.

⁴⁴⁴ See generally the Uruguay Round TRIPs Agreement (1993).

⁴⁴⁵ Examples of such tools include tax relief to encourage exports, reformed foreign investments rules, and compensation mechanisms. See also Article 34.18 of Agenda 21 (1992).

⁴⁴⁶ See Article 16(3) of the Convention on Biological Diversity (1992).

based on the genetic resources,⁴⁴⁷ and priority access to the results and benefits arising from biotechnological use of the genetic resources.⁴⁴⁸

The present provision anticipates a negotiation between provider and recipient which will precede every transfer of genetic resources, both direct and indirect. Although many, if not most, transactions will be between private entities, the responsibility falls upon the governments to ensure the results are “fair and equitable”. Thus, a regulatory framework reflecting this objective will be helpful in guiding private Parties’ contractual arrangements. This regulatory framework should also encourage contractual Parties to clarify the potential short and long-term benefits of the transaction, how the benefits will be distributed, and who owns the samples collected. This framework would not be sufficient if it only required that the terms be mutually agreed, since the bargaining power of the Parties to the transaction may be very different, especially since most transfers are between developing countries rich in genetic resources and industrialized countries. Accordingly, the requirements of fairness and equity are imposed. By allowing the providing State to share in the benefits, the conservation and sustainable use of these genetic resources, and their associated ecosystems, will be encouraged.

The particular circumstances surrounding each transaction will determine whether those qualifications are met. Of significance will be the value and amount of the particular genetic resource provided, and the value of the biotechnology. The true yield resulting from commercial exploitation may not be readily apparent before the transaction takes place, so it may be appropriate to insert a proviso in the agreement allowing for subsequent adjustment. One way in which Parties can comply with their obligations to transfer international financial resources (Article 52 (International Financial Resources)) is through building the capacity of developing country Parties to accurately assess the value of their genetic resources, in addition to allowing their use to be sustainable.

ARTICLE 49

INFORMATION AND KNOWLEDGE

- 1. Parties shall facilitate the exchange of publicly available information relevant to the conservation and sustainable use of natural resources, taking into account the special needs of developing countries.**
- 2. Parties shall require that access to traditional knowledge of indigenous and local communities be subject to the prior informed consent of the concerned communities and to specific regulations recognizing their rights to, and the appropriate economic value of, such knowledge.**

⁴⁴⁷ See Article 19(1) of the Convention on Biological Diversity (1992).

⁴⁴⁸ See Article 19(2) of the Convention on Biological Diversity (1992).

Article 49 deals with one of the most effective tools for achieving sustainable development: the international exchange of information necessary to rectify the information gap between industrialized and developing countries. Intra-national provision of information is addressed in Article 14(3) (Physical and Legal Persons). The requirement that environmental information be exchanged between States is found in several treaties⁴⁴⁹ and is prominent in Agenda 21.⁴⁵⁰ The information exchanged will, in most cases, be that to which individuals have access to under Article 14(3).

The wording in *Paragraph 1* is deliberately general and is related to the obligation pertaining to cooperation between Parties.⁴⁵¹ It is also crucial to individuals from other States who wish to exercise their right to equal access to proceedings relating to the environment (Article 14(4) (Physical and Legal Persons) and Article 57 (Non-Discrimination)).⁴⁵² Further, such information is essential in order to address global environmental problems at the international level, as a common concern (Article 3 (Common Concern of Humanity)). The terms set forth in this provision are not intended to determine the interpretation of those related provisions, although there may be some overlap.

The scope of shared information should be broad so as to include potentially damaging processes including pollution. Guidance may be had from Article 17(2) of the Convention on Biological Diversity (1992), which states that:

[s]uch exchange of information shall include exchange of results of technical, scientific and socio-economic research, as well as information on training and surveying programmes, specialized knowledge, indigenous and traditional knowledge... It shall also, where feasible, include repatriation of information.

The 1992 Convention for the Protection of the Marine Environment of the North-East Atlantic specifies that shared information includes what is available in written, visual, aural or data-base form.⁴⁵³

⁴⁴⁹ See e.g., Article 10 of the Convention on the Prevention of Marine Pollution from Land-Based Sources (1974); Article 200 of the UNCLOS (1982); Article 8 of the LRTAP Convention (1979); Article 10 of the Kuwait Regional Convention (1978); Article 13 of the Wider Caribbean Region Marine Environment Convention (1983); Articles 7 and 15 of the Amazonian Cooperation Treaty (1978); Articles 4(1) (h) and 7(2)(b) of the Climate Change Convention (1992).

⁴⁵⁰ See especially Chapter 34 of Agenda 21 (1992).

⁴⁵¹ These include Article 18 (Emergencies), Article 29 (Waste), Part VII (Transboundary Issues), in particular, with respect to shared natural resources, Article 46(2)(b) (Scientific and Technical Cooperation), Article 47 (Development and Transfer of Technology), Article 49 (Information and Knowledge), and Article 50 (Education, Training and Public Awareness).

⁴⁵² See also OECD Council Recommendations C(74)224 (Annex) and C(77)28 (Article 8(a)) on this point. See also, Article 9 of the ECE Industrial Accidents Convention (1992).

⁴⁵³ Article 9(2) of the North-East Atlantic Convention (1992).

The obligation in Paragraph 1 is not one of result (*i.e.*, that a specific quantity of information be transferred), but instead requires that information exchange be facilitated.⁴⁵⁴ “Facilitate” in this context means that the obstacles to the exchange of information in the public domain will be removed, whether the information stems from public or private sources. The means to comply with this requirement are left to the discretion of the Parties concerned. It may be done bilaterally or through competent international organizations.⁴⁵⁵ States may wish to explore the possibility of establishing networks in the form of clearinghouses, as recommended by Agenda 21.⁴⁵⁶ The qualification that the information be derived from publicly available sources does not bar States from voluntarily transmitting confidential information, although in those cases the receiving States should respect the confidentiality.⁴⁵⁷ Effective implementation of this provision will require the transmittal of the information in an understandable form, non-technical where appropriate. Finally, the clause requiring consideration of the special needs of developing countries implies some preferential treatment.⁴⁵⁸

Paragraph 2 is based on the premise that indigenous and local peoples have a proprietary or quasi-proprietary right to their knowledge.⁴⁵⁹ It echoes the thrust of Article 8(j) of the Convention on Biological Diversity (1992), but without the qualification that the entitlement to an equitable sharing of benefits arising from the utilization of such knowledge is subject to national legislation. Indigenous knowledge has tended to be exploited by outsiders without due respect for the communities imparting the knowledge. This provision seeks to provide greater control by indigenous peoples of their traditional knowledge, using the technique of requiring their prior informed consent as a condition for access to it.⁴⁶⁰ This provision also requires Parties to regulate by law this access and to accord legal recognition to the rights of indigenous peoples to their knowledge. Finally, the paragraph calls for according appropriate economic value to such knowledge, which provides greater precision than the terminology in the Convention on Biological Diversity, which speaks of “equitable sharing of benefits arising from the utilization of such knowledge...”.⁴⁶¹

⁴⁵⁴ This is the wording of Article 17 of the Biodiversity Convention (1992).

⁴⁵⁵ E.g., as provided for in Article 200 of UNCLOS (1982).

⁴⁵⁶ Paragraph 34.15 *et seq.* of Agenda 21 (1992).

⁴⁵⁷ As required, for example, by Article 4 of the Vienna Convention on the Ozone Layer (1985).

⁴⁵⁸ E.g., where a Party decides to impose a levy to cover the expense of the exchange of information, in the case of a recipient developing country this charge may be reduced.

⁴⁵⁹ See e.g., Principle 22 of the Rio Declaration (1992) and Paragraph 26.4 of Agenda 21 (1992). The rights of indigenous peoples in general are also accorded considerable emphasis in Chapter VI, section D of the Cairo Conference Programme of Action (1994).

⁴⁶⁰ This is similar to the requirement in Article 8(j) of the Convention on Biological Diversity (1992).

⁴⁶¹ Article 8(j) of the Convention on Biological Diversity (1992).

ARTICLE 50

EDUCATION, TRAINING AND PUBLIC AWARENESS

- 1. Parties shall establish institutions of learning specifically for capacity building at all levels, including promotion of basic literacy in management of environment and natural resources, including creation of data banks on environmental knowledge, which empower national populations to promote sustainable development.**
- 2. Parties shall disseminate environmental knowledge by educating their public and, in particular, by providing to indigenous peoples and local communities, information, educational materials, and opportunities for environmental training and education.**
- 3. Parties shall cooperate with each other, and where appropriate with international and national organizations, to promote environmental education, training, capacity building, and public awareness.**

Article 50 seeks to enhance public knowledge of environmental matters, recognizing that often individuals contribute effectively to environmental conservation efforts. Public knowledge also can enhance support for government action in the environmental field. Moreover, effective individual participation in decision-making processes (Article 14(3) (Physical and Legal Persons)) is predicated upon adequate environmental knowledge. Finally, this provision seeks to give effect to the basic right of children to be educated in a manner which develops their respect for the natural environment.⁴⁶² Similar provisions are common in environmental treaties⁴⁶³ and detailed recommendations are made in Chapter 36 of Agenda 21. Other international instruments also refer to environmental education.⁴⁶⁴ Both national and international efforts to increase this knowledge are contemplated here.

⁴⁶² Article 29(1)(e) of the Convention on the Rights of the Child (1989).

⁴⁶³ E.g., Article 27 of the World Heritage Convention (1972); Article 11 of the 1982 Protocol Concerning Mediterranean Specially Protected Areas to the Barcelona Convention; and Article 6 of the Climate Change Convention (1992). See also Principle 19 of the Stockholm Declaration (1972); Principle 15 of the World Charter for Nature (1982); and Article 16(d) of the ECE Bergen Ministerial Declaration on Sustainable Development (1990). Article 19 of the Desertification Convention (1994) (capacity-building, education and public awareness); and Article 3(3) of the Aarhus Convention (1998) requires that each party promote environmental education and environmental awareness among the public, especially on how to obtain access to information, to participate in decision-making and to obtain access to justice in environmental matters.

⁴⁶⁴ The African Rights of the Child Convention, Article 11, provides for a right to education that shall be directed to: “the development of respect for the environment and natural resources”.

Paragraph 1 places on each Party the primary obligation to increase the environmental knowledge of its nationals, because each Party possesses the means to harness and disseminate it, whether directly or through private entities. Efforts should be aimed at the public at large, but also at indigenous peoples and local communities. This latter point recognizes the special roles these groups have in the achievement of sustainable development.⁴⁶⁵

Paragraph 1 lists three categories of environmental knowledge to be disseminated. The first, information, connotes all information relating to the environment which is publicly available. Dissemination can be through electronic, print or broadcast media, and should be in a non-technical accessible format. The second, educational materials, includes information packaged in a manner which can be most effectively assimilated by the public. Dissemination can be easily achieved through primary and secondary schools, although adult educational venues should also be encouraged. The final item, opportunities for environmental training and education, is necessary for the former two to be effective. In most cases, Parties will have to allocate sufficient resources to existing educational infrastructure.

Paragraph 2 calls on States to cooperate with a view to enhancing environmental knowledge throughout the world.⁴⁶⁶ Discretion is left to each Party to determine the most effective manner of cooperation, whether directly or through competent international or national organizations.⁴⁶⁷

Paragraph 2 also requires States to promote capacity-building, especially needed in developing countries, for which bilateral or multilateral assistance may be appropriate. Agenda 21 devotes an entire chapter to this theme in relation to enhancing the capacity of developing countries.⁴⁶⁸ It calls on each country to undertake a review of its capacity and capacity-building requirements in relation to its national sustainable development strategies and on the Secretary-General of the UN

⁴⁶⁵ See Chapter 26 of Agenda 21 (1992).

⁴⁶⁶ See e.g., Article 202(a) of UNCLOS (1982); Article 13(b) of the Convention on Biological Diversity (1992); and Article 6 of the Climate Change Convention (1992).

⁴⁶⁷ See Article 6 of the Declaration of Environmental Policies and Procedures Relating to Economic Development (1990), where the major development banks commit themselves to “prepare, publish and disseminate documentation and audio-visual material providing guidance on the environmental dimension of economic development activities”.

⁴⁶⁸ Chapter 37 of Agenda 21 (1992). See also Principle 12 of the Stockholm Declaration (1972) and Article 7 of the WCED Legal Principles (1986). Since capacity-building is necessary for developing countries to fulfil their obligations under this Draft Covenant, this requirement is a practical implication of the global environment being a Common Concern of Humanity (Article 3). In this regard, it is related to virtually all provisions of this Covenant, particularly Article 46 (Scientific and Technical Cooperation), Article 47 (Development and Transfer of Technology), and Article 49 (Information and Knowledge). Of crucial significance is also Article 52 (International Financial Resources). Indeed, the Climate Change Convention (1992) and Convention on Biological Diversity (1992) condition the compliance of developing countries with the fulfilment of the obligations of developed country Parties to transfer financial resources.

to submit a report to the General Assembly on technical cooperation programmes for sustainable development and on what is needed to strengthen this cooperation.⁴⁶⁹ Agenda 21 also recommends the following: full use of international and non-governmental organizations in the planning and facilitating of capacity-building strategies⁴⁷⁰ and in actual technical cooperation;⁴⁷¹ requests for technical cooperation to be in the framework of long-term sector or sub-sector needs;⁴⁷² establishment of mechanisms within recipients, donors, UN organizations, and non-governmental organizations to review international technical cooperation;⁴⁷³ and harmonization of the delivery of assistance at the regional level through consultative and review mechanisms.⁴⁷⁴

ARTICLE 51

NATIONAL FINANCIAL RESOURCES

- 1. Parties undertake to provide, in accordance with their capabilities, financial support and incentives for those national activities aimed at achieving the objectives of this Covenant.**
- 2. Parties shall pursue innovative ways of generating public and private financial resources for sustainable development.**

Article 51 complements those that provide for general and specific obligations to protect the environment and in particular to adopt rules and standards in this regard. Many of these actions require significant financial resources to ensure their full effectiveness. In contrast to Article 52 (International Financial Resources), the emphasis in this provision is on harnessing financial resources at the national level in accordance with national capabilities to achieve the objectives of the Draft Covenant.

Paragraph 1 sets out a general obligation to undertake to provide such resources. The provision is qualified in terms of individual capabilities, since it is apparent that many countries, particularly developing countries, have limited resources available to implement the Draft Covenant.⁴⁷⁵ The precise amounts will vary from country to country, but the preparation of national action plans (Article 40 (Action Plans)) will likely assist in estimating the funds required. As such, the obligation is one of “best efforts”, which is intended to increase in quantity as Parties increase their level of economic development. Even without external financial assistance, all Parties can take significant

⁴⁶⁹ Paragraph 37.4 of Agenda 21 (1992).

⁴⁷⁰ Paragraph 37.5 of Agenda 21 (1992).

⁴⁷¹ Paragraphs 37.8-37.10 of Agenda 21 (1992).

⁴⁷² Paragraph 37.6 of Agenda 21 (1992).

⁴⁷³ Paragraph 37.7 of Agenda 21 (1992).

⁴⁷⁴ Paragraph 37.11 of Agenda 21 (1992).

⁴⁷⁵ See e.g., Act No. LXXXII of 1992 creating a Central Environment Fund (Hungary).

strides towards meeting this obligation by allocating their current expenditures more wisely: either more cost-effectively or on higher priority problem areas. The reference to “incentive” should be understood broadly so that in addition to financial incentives it encompasses all regulatory activity which induces voluntary pursuit of an objective. This is in recognition of the important role private financing can play in the achievement of sustainable development, so long as it is properly channelled.⁴⁷⁶ Examples include eco-labelling⁴⁷⁷ or granting a local community access to a protected area for specific purposes so long as this does not disrupt the goals of the protected area. Other examples might be more indirect, such as land tenure reform or technical in-kind assistance to communities. This provision also encourages Parties to remove “perverse incentives” that defeat the objective of the Draft Covenant.⁴⁷⁸

Paragraph 2 calls for innovation in achieving the goal laid out in Paragraph 1. “Fees and taxes” may be singled out for special emphasis,⁴⁷⁹ although all types of “economic instruments” should be considered.⁴⁸⁰ In so doing, however, considerations of equity suggest that these instruments should be aimed at those who consume the environmental resource in question, such as non-subsistence consumers, business and industry. In many cases the implementation of this Article will require legislation or other legal instruments.⁴⁸¹ Since budgetary considerations are closely linked with overall governmental policy-making, they should include the reallocation of certain resources, as suggested.⁴⁸²

ARTICLE 52

INTERNATIONAL FINANCIAL RESOURCES

- 1. Parties shall cooperate in establishing, maintaining, and strengthening ways and means of providing new and additional financial resources, particularly to developing countries, for:**
 - (a) environmentally sound development programmes and projects;**

⁴⁷⁶ This Article is supported in general by Principle 17 of the World Charter for Nature (1982), which calls for the provision of “[f]unds, programmes and administrative structures necessary to achieve the objective of the conservation of nature”, and by Agenda 21 (1992), which calls for States to financially support environmental programmes (Paragraphs 34.22, 34.23 and 34.29 on Financing and Cost Evaluation). On a country-specific basis, Paragraph 36.7 of Agenda 21 provides specific strategies for financing such endeavours in relation to environmental education, training and public awareness. In addition, Paragraph 37.9 calls upon the assistance of financial institutions in this process.

⁴⁷⁷ E.g., EC Council Regulation EEC/880/92 on a Community Eco-label Award Scheme (1992).

⁴⁷⁸ E.g., grants for non-beneficial land-clearance and agricultural and fisheries subsidies.

⁴⁷⁹ See e.g., Law on Natural Resource Taxes (Latvia) and Law on Pollution Tax (Lithuania).

⁴⁸⁰ E.g., tradeable pollution allowances (e.g. as provided for under the US Clean Air Act, as amended).

⁴⁸¹ See also Article 16(2)(b) (Integrated Policies).

⁴⁸² See Paragraph 33.16(e) of Agenda 21 (1992).

- (b) **capacity building and enhancement of relevant institutions;**
 - (c) **measures to address major environmental problems of global concern, and measures to implement this Covenant, where such measures would entail special or abnormal burdens due to the lack of sufficient financial resources, expertise or technical capacity;**
 - (d) **compensation for binding commitments to forego the economic use of specific natural resources where such use would endanger the environment; and**
 - (e) **making available, under favourable conditions, the transfer of environmentally sound technologies.**
2. **Parties, taking into account their respective capabilities and specific national and regional developmental priorities, objectives and circumstances, shall endeavour to augment their aid programmes to reach the United Nations General Assembly target of at least 0.7 per cent of Gross National Product for Official Development Assistance. Parties shall encourage public/private initiatives that enhance access to additional financial resources.**
 3. **Parties shall consider ways and means of providing debt relief to developing countries with unsustainable debt burdens, including by way of cancellations, rescheduling or conversion of debts to investments, and debt-for-sustainable-development exchanges.**
 4. **A Party that provides financial resources to a State for activities that may result in a significant adverse impact on the environment shall, in cooperation with the recipient State, ensure that an environmental impact assessment of the activities is conducted. The resources provided shall include those necessary for the recipient State to carry out such assessment.**

Article 52 reflects a trend in international environmental treaties to make provisions for a flow of financial resources from industrialized countries to developing countries with a view to enabling them to fulfil their treaty obligations.⁴⁸³

⁴⁸³ See e.g., Articles 20 and 21 of the Desertification Convention (1994), Article 5 of the Montreal Protocol (1987), Article 4(3) of the Climate Change Convention (1992), and Article 20 of the Biological Diversity (1992). In addition, note the role of the Global Environmental Facility in this regard. See also Chapter 33 of Agenda 21 (1992) and Principle 10 of the Forest Principles (1992). It has been noted by some commentators from developing countries that without such assistance, these agreements will remain largely unimplemented by developing countries (and under some treaties, e.g., Climate Change and Biological Diversity, implementation in developing countries is contingent upon industrialized countries' fulfilment of their obligations relating to financial resources and technology transfer).

Paragraph 1 does not specify the modalities for providing resources, leaving this for the Parties to decide in the course of their cooperation. However, certain trends are discernable, and as such the mechanisms should: (a) be transparent; (b) be democratic in nature and create an equitable balance between developing and developed countries; (c) provide access and disbursement to all developing countries without any conditionality; and (d) provide funding of activities according to the priorities and needs of developing countries and taking into account Agenda 21.⁴⁸⁴ These resources are called “new and additional” because they should be separate from, and in addition to, the regular aid budgets of industrialized countries. Several proposals have been put forth for the provision of international financial resources for the purposes enumerated in this provision, such as the creation of a fund based on import levies.⁴⁸⁵

Subparagraphs (a) and (b) should be read in conjunction with Article 10 (Right to Development) and Article 16 (Integrated Policies). **Subparagraph (c)** is directed towards environmental matters of global concern, but this provision is broader than the UNCED treaties in not limiting the transfer of financial resources to meeting the “agreed incremental costs”.⁴⁸⁶ Any agreed mechanism should be based on information received from the Depositary regarding each Party’s experience (Article 78(2)) and should be regularly reviewed by the Review Conference (Article 70). **Subparagraph (d)** addresses innovative schemes such as Ecuador’s 2010 commitment to forego the exploitation of oil resources in its Yasuní reserve in exchange for international financing of local conservation programmes. **Subparagraph (e)** should be read in conjunction with Article 47 (Development and Transfer of Technology), so that any condition for the transfer of technology is mutually agreed. This provision leaves it to the discretion of each State as to how to deal with the intellectual property aspects of this provision (e.g., as may apply under the Uruguay Round TRIPs Agreement (1989),

Article 21 of the International Tropical Timber Agreement creates the Ball Partnership Fund based on contributions from donor members, 50% of income earned and other private and public sources. Its purpose is “to assist producing members to make the investments necessary to achieve the objective of the Agreement”.

⁴⁸⁴ See Paragraph 12 of the Kuala Lumpur Declaration (1992) and Paragraph 33.14(a)(iii) of Agenda 21.

⁴⁸⁵ See e.g., the suggestion to create a “Solidarity Fund”, put forth by the outgoing EU Ambassador to the GATT, Ambassador Tran Van-Trinh. Also, Paragraph 33.14 of Agenda 21 (1992) identifies, *inter alia*, the International Development Association, regional and sub-regional development banks, the Global Environment Facility, and private financing through non-governmental entities as possible vehicles for maximizing the availability of new and additional resources.

⁴⁸⁶ See Article 10 of the 1987 Montreal Protocol, Article 11 of the Climate Change Convention (1992), and Article 20 of the Convention on Biological Diversity (1992). Article 20 of the Desertification Convention (1994) is similar: it requires developed States Parties to (a) mobilize substantial financial resources, including grants and concessional loans, in order to support the implementation of programmes to combat desertification and mitigate the effects of drought; (b) promote the mobilization of adequate, timely and predictable financial resources, including new and additional funding from the Global Environment Facility (GEF) of the agreed incremental costs of those activities concerning desertification that relate to its four focal areas, in conformity with the relevant provisions of the instrument establishing the GEF. This concept has been criticised for being difficult to apply in practice, necessitating arbitrariness.

but clearly the financial mechanism can be structured so as to purchase licences, patents, etc. It should be emphasised that this provision is not intended to defeat such rights.⁴⁸⁷

Paragraph 2 primarily concerns ordinary overseas development assistance levels, to be distinguished from “new and additional resources” referred to in Paragraph 1. It affirms the political commitment made in Paragraph 33.13 of Agenda 21 (1992) and elsewhere to endeavour to have such levels reach 0.7% of gross national product.⁴⁸⁸ The wording of the provision suggests application to all Parties, not only industrialized ones, and accordingly other Parties, such as newly industrialized countries, should contribute appropriate amounts of resources to overseas development assistance.

Paragraph 3 requires Parties to consider means of lowering the international debt of developing countries, based on the recognition that this crippling burden prevents some countries from developing sustainably.⁴⁸⁹ The appropriateness and precise modalities of such measures are left to the discretion of the Parties, except that any relief must be applied to sustainable development activities. One practical application of this provision would be to implement “debt-for-nature swaps”.⁴⁹⁰ A second alternative is for creditors to provide debt relief to the poorest heavily indebted countries, as provided for under the December 1991 Agreement of the Paris Club.

Paragraph 4 flows from the requirements of Article 42 (Environmental Impact Assessment), requiring donor Parties to conduct an EIA with respect to activities arising out of their development assistance.⁴⁹¹ The use of the term “State” indicates that this provision applies regardless of whether the recipient State is Party to the Draft Covenant. As a guideline, the donor Party should, in cooperation with the recipient State, make best efforts to comply where appropriate with the

⁴⁸⁷ See also Article 16(2) of the Convention on Biological Diversity (1992), Article 4(5) of the Climate Change Convention (1992) and Article 5 of the Montreal Protocol (1987).

⁴⁸⁸ See Paragraph 33.13 and the Tokyo Declaration on Financing Global Environment and Development (1992).

⁴⁸⁹ Cf. Article 20 of the Desertification Convention (1994) and Paragraph 33.14(e) of Agenda 21 (1992). See also UNGA Declaration on International Economic Cooperation in Particular the Revitalizing of Economic Growth and Development of the Developing Countries (1990).

⁴⁹⁰ See e.g., Article 20(2)(d) of the Desertification Convention (1994) and Paragraph 33.16(a) of Agenda 21 (1992).

⁴⁹¹ See e.g., *Natural Resources Defence Council, Inc. v. Nuclear Regulatory Commission (NRC)* (1981) (although the issue has not been fully settled in the United States); OECD Council Recommendation C(85)104 on Environmental Assessment of Development Assistance Projects (1985), OECD Council Recommendation on Measures Required to Facilitate the Environmental Assessment of Development Assistance Projects and Programmes (1986), and OECD Development Assistance Committee Guidelines on Environment and Aid (1992). Although the wording of this provision is *prima facie* directed at transfers of funds by States, it suggests that State members of international development banks should seek to have these institutions also conduct EIAs, which currently is the common practice.

provisions of Article 42.⁴⁹² In order to allow the recipient State to effectively participate in the EIA process, it might be necessary for the donor Party to provide needed technical assistance and human resources.

The rationale for this requirement is based on the international duty of all States to protect the environment as a common concern (Article 3 (Common Concern of Humanity)), which in this instance means that their developmental assistance is not used in environmentally hazardous ways.⁴⁹³

PART IX. RESPONSIBILITY AND LIABILITY

The object and purpose of this part of the Covenant is not only to ensure prompt and adequate compensation to victims of transboundary environmental damage, but also to preserve and protect the environment in case transboundary damage occurs. An effective system of remedies for environmental harm resulting from the breach of provisions of the Draft Covenant and other international environmental law is essential to environmental protection and sustainable development. Part IX details the duties owed by the Parties when such harm has occurred, whether within or outside their territory or jurisdiction, both to other Parties and in relation to individuals. This Part is based on the general international law doctrines of State responsibility and liability, and draws inspiration from the work of the International Law Commission.⁴⁹⁴ It also takes into account national and international experience with civil or private liability regimes in environmental law. Because regional economic integration organizations may not have sufficient legal personality to be “responsible” or “liable” under international law, this Part is primarily directed to State Parties to the Draft Covenant.⁴⁹⁵

This Part responds to the call contained in Principle 22 of the Stockholm Declaration on the Human Environment for States 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”. Numerous international instruments have reiterated the Stockholm statement.⁴⁹⁶

⁴⁹² See World Bank Operational Policy/Bank Procedure 4.01 (1999) on Environmental Assessment (1999).

⁴⁹³ See also Article 42 (Environmental Impact Assessment).

⁴⁹⁴ Draft Articles on Responsibility of States for Internationally Wrongful Acts, in Report of the International Law Commission on the Work of Its Fifty-third Session, UNGAOR, 56th Sess., Supp. No. 10, at 45, UN Doc. A/56/10 (2001), approved by the General Assembly in GA Res. 56/83 (Dec. 12, 2001). For a history of the ILC’s work and commentary on the articles, see James Crawford, *The ILC’s Articles on State Responsibility* (2002).

⁴⁹⁵ Cf. Article 35(1) of the Statute of the International Court of Justice (1945).

⁴⁹⁶ For example, in the field of marine pollution, see Article 20 of the South Pacific Convention (1986); Article 14 of the Wider Caribbean Marine Environment Convention (1983); Article 15 of the West and

The provisions of Part IX require the provision of remedies for environmental harm on both the civil and inter-State levels. International environmental law places primary emphasis on national measures of enforcement, complemented by international compliance and enforcement procedures, from State reporting to judicial proceedings based on State responsibility. Some instruments favour a civil liability regime alone,⁴⁹⁷ holding liable the “polluter” or the “operator or owner of a facility”,⁴⁹⁸ whereas others are based purely on State responsibility.⁴⁹⁹ Each on its own has been demonstrated to be of limited effectiveness. In the case of State responsibility, the inadequacies are due to the (a) the traditional view that only affected or injured States can bring actions and an affected State may choose not to provide its diplomatic protection; (b) States do not have standing to bring actions for the protection of areas beyond national jurisdiction; and (c) the innocent victim may be left uncompensated in cases where the State causing the harm has met its due diligence obligations. In contrast, civil liability may be inadequate when (a) the operator is insolvent or else unable to make full reparation for the harm caused and (b) when it is inequitable to place the entire burden of reparation on a private entity because the State permitted the activity to take place.

As such, the intention of this Part is to offer a combination of civil and inter-State remedies, the latter including remedies based on both international responsibility and international liability for the injurious consequences of lawful acts.⁵⁰⁰ Responsibility is thus a question of breach of a duty while liability addresses the allocation of risk of loss.

There are some general reasons for including a regime of State responsibility and liability additional to the civil liability regime: (a) a State may have breached its international obligations causing it to be responsible; (b) activities under its jurisdiction or control may have caused signifi-

Central African Marine Environment Convention (1981). See also Principle 13 of the Rio Declaration (1992).

⁴⁹⁷ Cf. Article 11 of the South-East Pacific Marine Environment Convention (1981). Other Conventions combine civil liability with international responsibility. See Article XIII of the Kuwait Regional Convention (1978); Article XIII of the Jeddah Convention on the Marine Environment (1982). The Basel Protocol on Liability and Compensation for Damage Resulting from the Transboundary Movements of Hazardous Wastes and their Disposal (1999); Articles 6 and 7, Liability for Carriage of Noxious Elements by Sea (1996).

⁴⁹⁸ E.g., Article 3 of the Paris Nuclear Liability Convention (1960); Article II of the Vienna Nuclear Liability Convention (1963); and Article III of the Oil Pollution Civil Liability Convention (1969); International Convention on Civil Liability for Bunker Oil Pollution Damage (2001).

⁴⁹⁹ This is the general presumption in international law behind most environmental treaties which do not create specific civil liability regimes. See also Article 12 of the Barcelona Convention (1976) and Articles 139(2) and 235(1) of UNCLOS (1982).

⁵⁰⁰ See, generally, Paris Nuclear Liability Convention (1960) and the Vienna Nuclear Liability Convention (1963). See the Basel Protocol on Liability and Compensation for Damage Resulting from the Transboundary Movement of Hazardous Wastes and their Disposal (1999) which provides for strict liability shifting from the exporter to importer as well as liability of any person for intentional, reckless or negligent acts or for non-compliance with the provisions implementing the Convention. State responsibility is also foreseen for failing to comply with the obligations of the Protocol.

cant harm for which it is liable; and (c) it may be impossible to identify the private operator or the amount of the damage may be too great for the operator to bear and the State of origin should bear subsidiary liability.

The purpose of this Part is to set forth basic rules; Parties are encouraged to further develop these rules and tailor them to specific contexts. The different aspects of prevention are fairly well developed all along the Covenant. Article 27 is important and there are prevention obligations regarding different situations, as in Article 35(1) on economic activities and Article 36 on military and hostile activities. Also, Article 42 on environmental impact assessment provides a necessary element, not only to prevention but to a responsibility/liability response. The articles on responsibility and liability, are inspired by the work of the International Law Commission on prevention and allocation of loss respectively (included by the General Assembly in A/RES/62/68 and A/RES/61/36).⁵⁰¹

Part IX is focused on environmental *damage*,⁵⁰² which is not defined. There are different conceptions of environment and also different ideas of what constitutes compensable environmental damage. The latter concept, particularly, is evolving in some jurisdictions to include non-service values.

The International Law Commission, for the purposes of the articles on allocation of loss defined “environment” thus:

(b)“Environment includes natural resources, both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors and the characteristic aspects of the landscape”.

This conception of environment includes “the characteristic aspects of the landscape” and with that non-use values. On the other hand, several items are left out which some authors consider environmental damage. In ILC Principle 2 “damage” is (a)...“significant damage caused to persons, property and the environment”. That means that damage to persons and property is, in principle, considered separately from damage to the environment. Property which forms part of the cultural heritage, for instance, is considered damage to property and not to the environment (Principle 2.(ii)).

In the same ILC Principle, the “costs of reasonable measures of reinstatement of...(the) environment, including natural resources” (iv) as well as (v) “the costs of reasonable response measures” are also considered compensable damage.

⁵⁰¹ The approach adopted by the Commission regarding liability (allocation of loss) is the same as suggested for Part IX here; *i.e.* the setting forth of a few core principles to cope with responsibility and liability in case of transboundary environmental damage.

⁵⁰² The ILC uses “harm” relating to possible future damage, particularly in the field of prevention.

ARTICLE 53

STATE RESPONSIBILITY

States Parties are responsible under international law for a breach of the obligations imposed on them by this Covenant.

State *responsibility* (not liability) would apply to the breach of *prevention* obligations and other State obligations imposed by the Covenant, like *ensuring* access on non-discriminatory basis to their law courts to resident and non-resident victims, or providing courts with effective remedies, or making operators or other adequate private parties liable for the damage, etc. In short, the taking of such measures as would make adequate and prompt remedies and compensation available to non-resident victims. The breach of those obligations entails the consequences envisaged in general international law as reflected in the 2001 articles of the International Law Commission. The actions aimed at enforcing the legal consequences of that breach are independent of the liability of the operator or other private party. (For instance, responsibility of the State of origin for breach of an obligation of prevention may be invoked even if no actual material damage has occurred and therefore no private party liability has been incurred).

It must be recalled that the obligations of prevention imposed on States in the relevant chapter are not obligations of result; States are merely required to *attempt* to prevent accidents and harm. Violation of these obligations entails consequences distinct from the actual occurrence of harm as an accidental consequence of the activity's inherent risk: should such harm take place, strict liability would fall on the operator or where appropriate, of other person or entity. For example, if the State of origin allows a hazardous or harmful activity to be carried out without fulfilling the steps necessary for a prior formal authorization it would be in breach of an obligation. The occurrence of an incident would automatically impose strict liability on the operator, but the State would remain responsible for its breach.

Unless a hazardous activity is operated by the State, there would be no direct State *liability* for the damages such activity may cause. A State of origin would only be, in principle, *responsible* for its own acts. This seems to be reasonable: damages caused by the inherent risk of an activity should be subject to a different regime of accountability, namely to *liability* and in principle be in charge of the relevant private parties operating the activity. States of origin should, however, *ensure* prompt and available compensation.

This distribution of roles between States of origin and liable private parties seems to represent the present trend both in conventional and in other practice. Existing conventions on liability and compensation as well as other international practice show States as not being *unconcerned* by trans-boundary harm caused by activities under their jurisdiction or control but not necessarily as being the primary liable parties. In international *treaty* practice (civil liability conventions) States are generally obliged to *ensure* that foreign victims have access on non-discriminatory basis to their law courts, that these courts are provided with effective remedies to make reparation for the damage caused, that operators or other private parties are liable for such damage, in short States have a number of obligations aimed at making available to victims adequate and prompt remedies and compensation.

If States Parties do not comply with such due diligence obligations, they should be responsible in international law and face the consequences following the breach of international obligations.

Sometimes States go further than that and participate with public funds when the liable private party or its insurance cannot cover the whole amount of compensation, or make *ex-gratia* payments⁵⁰³ which thinly disguise payments of real obligations. Such State acts seem to be a price for their prerogatives as territorial sovereigns, a counter-weight for excluding other States from their internal jurisdictions.⁵⁰⁴ The wise *dictum* of the *Corfu Channel* judgment not to use, or permit the use of, a State's territory against the rights of other States is applied.

ARTICLE 54

LIABILITY

1. **States Parties shall take the necessary measures to ensure that prompt and adequate compensation is available to victims of significant transboundary damage caused by hazardous activities located within their territory or otherwise under their jurisdiction or control.**
2. **These measures shall include, *inter alia*:**
 - (a) **The imposition of liability, without requiring proof of fault, on the operator or, where appropriate, other person or entity.**
 - (b) **Any conditions, limitations or exceptions to such liability shall be consistent with the principle of prompt and adequate compensation to victims, as well as with the responsibility of States 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.**

Ensuring prompt and adequate compensation is a due diligence obligation; complying with the different measures imposed in Part IX in order to make it available would be a minimum due diligence threshold. Regarding other factors, the ILC so resumes its conception of due diligence:

“The main elements of the obligation of due diligence involved in the duty of prevention could be thus stated: the degree of care in question is that expected of a good Government. It should possess a legal system and sufficient resources to maintain an adequate administrative apparatus to control and monitor the activities. It is, however, understood that the degree of care expected of a State with a well-developed economy and human

⁵⁰³ As in the nuclear and oil industries.

⁵⁰⁴ As said by Arbitrator Huber in the *Island of Palmas* award.

and material resources and with highly evolved systems and structures of governance is different from States which are not so well placed. Even in the latter case, vigilance, employment of infrastructure and monitoring of hazardous activities in the territory of the State, which is a natural attribute of any Government, are expected”.

“The required degree of care is proportional to the degree of hazard involved. The degree of harm itself should be foreseeable and the State must know or should have known that the given activity has the risk of significant harm. The higher the degree of inadmissible harm, the greater would be the duty of care required to prevent it”.⁵⁰⁵

Besides imposing liability on relevant private parties, other measures may be expected of a State’s diligence, like requiring the operator or, where appropriate, other person or entity to establish and maintain financial security, or the establishment of industry-wide funds at the national level, or if necessary to ensure that other financial resources are made available.⁵⁰⁶ The recourse to such measures could perhaps be an indication of a State’s due diligence in fulfilling its basic obligation.

The source of environmental damage caused may be any activity in the State of origin which causes, or may cause, significant transboundary environmental harm. Activities may be of two kinds: those which cause damage in their normal operation (harmful activities, see Article 58) and those which *may* cause damage through incidents due to their inherent risk (hazardous activities).⁵⁰⁷ The latter type, which in normal operation does not cause significant harm should be regulated within two different legal frameworks: that of *responsibility* for the breach of State obligations and that of *liability* of the operator or other suitable private party (owner of the ship or the concern, carrier, importer, exporter, disposer, etc) for damage actually caused by the activity through an incident.

ARTICLE 55

RESPONSE MEASURES

Upon the occurrence of an incident involving a harmful activity which results or is likely to result in transboundary environmental damage, the State Party of origin,

⁵⁰⁵ Doc.A/CN.4.L.554/Add.1 p. 33.

⁵⁰⁶ See Principle 4 paragraphs 3, 4 and 5 of the 2004 ILC Articles.

⁵⁰⁷ There seems to be a third category, namely activities which are prohibited. Harmful activities are not necessarily prohibited: an international act setting forth such prohibition seems necessary. Nuclear tests were thus expressly prohibited by treaty in the atmosphere, then in other media, etc. The sole fact of performing one brings about responsibility for a wrongful act, without any need of establishing material or moral damages. Activities of minerals extraction are forbidden in Antarctica, so the mere fact of undertaking one such activity generates responsibility. Moreover, a procedural act like a countermeasure may be taken before any damage results. For the rest, there appears to be little difference between harmful activities prohibited or non-prohibited.

with the appropriate involvement of the operator, shall ensure that appropriate response measures are taken. States Parties 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.

The cost of response measures is considered a part of the damage to be compensated. According to the ILC Commentary, they are “recent concepts”.⁵⁰⁸ Response measures are *reasonable* measures aiming to “assess, reinstate, or restore damaged or destroyed components of the environment or where this is not possible, to introduce, where appropriate, the equivalent of these components into the environment”.⁵⁰⁹

The word “reasonable” indicates that there should be no disproportion between the costs of such measures and the usefulness resulting from them.⁵¹⁰ “Recent treaty practice has tended to acknowledge the importance of such measures but has left it to domestic law to indicate who may be entitled to take such measures. Such measures include any reasonable measures taken by any person including public authorities, following the occurrence of the transboundary damage, to prevent, minimize or mitigate possible loss or damage or to arrange for environmental clean-up”.⁵¹¹

Perhaps the moment for such measures was not “following the occurrence of the transboundary damage”, but “following the incident” provoking that damage, because it may very well happen that the incident takes place in the State of origin and *before* its effects reach the territory of the affected State measures “to prevent, minimize or mitigate possible loss or damage” are taken.⁵¹²

⁵⁰⁸ See *Yearbook of the International Law Commission*, 2006, at p. 130.

⁵⁰⁹ *Id.* P. 131. Response measures may have a dual nature: “Reinstatement” might be considered to be either a form of restitution – as indeed might also be restoration – or in other cases of compensation by equivalent. If the elements of the natural resources destroyed or impaired were entirely fungible, for instance if there was a killing of certain type of fishes in a lake and the dead fishes were replaced by an equivalent number of individuals of the same species, that operation falls very close to a restitution, and if the specimens introduced in the lake are not of the same species, but fulfill a similar function, to a form of compensation by equivalent. “Equivalent” does not exclusively mean money, although compensation money may pay for the response measures taken by whoever took them.

⁵¹⁰ See *Commonwealth of Puerto Rico v. Zoe Colocotroni*: “[Recoverable costs are costs] reasonably to be incurred...to restore or rehabilitate the environment in the affected area to its pre-existing condition, or as close thereto as is possible without grossly disproportionate expenditures.”628 F.2 p.652 (1st Cir. 1980).

⁵¹¹ Doc.A/CN.4.L.554/Add.1 cit. p. 33.

⁵¹² Such measures are, then, measures of prevention *ex post*. Many conventions on liability and compensation have articles on the obligations of States of origin and sometimes on affected States on how to proceed *after an incident has occurred* in order to mitigate as far as possible the consequent damage. Those measures are aimed at *preventing* the consequences of the incident to reach their full impact and were called “measures of prevention *ex post*”, that is, of prevention after the incident. The Lugano Convention, for instance, states in article 2, paragraph 9: “Preventive measures” means “any reasonable measures taken by any person *after an incident has occurred* to prevent or minimize loss or damage”(emphasis added). Similar paragraphs are to be found in very many other conventions of the same type.

ARTICLE 56

INTERNATIONAL AND DOMESTIC REMEDIES

- 1. States Parties 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 harmful activities located within their territory or otherwise under their jurisdiction or control.**
- 2. States Parties shall provide for recourse to international claims settlement procedures that are expeditious and involve minimal expense.**

The provisions of environmental agreements and this Article mirror many human rights texts in requiring proceedings before an independent and impartial body established by law (UDHR, Arts. 8 and 10; ICCPR, Arts. 2(3)(b) and 14; European Convention on Human Rights, Arts. 6 and 13; American Convention, Arts. 8 and 25; African Charter, Arts. 3 and 7). Under Article 9 of the Aarhus Convention, which concerns access to justice each state party must provide judicial review for any denial of requested information, and a remedy for any act or omission concerning the permitting of activities and “acts and omissions by private persons and public authorities which contravene provisions of its national law relating to the environment”. Standing to challenge permitting procedures or results is limited to members of the public having a sufficient interest or maintaining impairment of a right; however, the Convention provides that environmental non-governmental organizations “shall be deemed” to have sufficient interest for this purpose. Standing to challenge violations of environmental law is open to the public, including NGOs “where they meet the criteria, if any, laid down in national law” (Article 9(3)).

The *International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea* (London, May 3, 1996) is similar to the Convention on Liability for Oil Pollution Damage. It ensures a remedy for those injured by damage, imposes a mandatory insurance requirement, and establishes limits on liability and a compensation fund.

On September 12, 1997, a *Joint Protocol to amend the Vienna Convention on Civil Liability for Nuclear Damage (21 May 1963) and the Paris Convention on Third Party Liability in the Field of Nuclear Energy (29 July 1960) as amended*, updated the provisions imposing civil liability on owners or operators of nuclear facilities and providing remedies for those injured as a result of nuclear incidents.

The *Convention on the Protection of the Black Sea against Pollution* (Bucharest, April 21, 1992)⁵¹³ contains a provision on remedies. Its article 16 specifies that each Contracting Party shall adopt rules and regulations on the liability for damage caused by natural or juridical persons and shall ensure that

⁵¹³ 32 I.L.M. 1101 (1993).

recourse is available in accordance with their legal systems for prompt and adequate compensation or other relief for damage caused by pollution of the marine environment of the black Sea. (Art. XVI).

The *Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment* (Lugano, June 26, 1993).⁵¹⁴ The primary focus of the Convention is on providing access to remedies for environmental harm. Broad standing is provided to environmental organizations to seek the prohibition of an unlawful activity that poses a grave threat of damage to the environment and to seek orders against operators in order to prevent or mitigate damage. Actions for compensation for harm suffered must be brought within three years from the date on which the claimant knew or ought reasonably to have known of the damage and of the identity of the operator and in no case more than thirty years from the date of the incident which caused the damage. Jurisdiction exists where the damage was suffered; where the dangerous activity was conducted and where the defendant has his habitual residence. Chapter III, comprising articles 13 to 16, concerns access to information. Public authorities are to provide access to information to any person upon request and without the person having to prove an interest. Certain exceptions are provided and a time limit of two months for reply. Any person who considers that his request for information has been unreasonably refused or ignored or has been inadequately answered by a public authority, is entitled to seek a judicial or administrative review of the decision, in accordance with the relevant legal system. Parties may impose a reasonable cost for supplying the information. (Art. 14). Articles 15 and 16 extend rights to information to “bodies with public responsibilities for the environment and under the control of a public authority” and, under specified conditions, to operators of activities dangerous to the environment. In respect to the latter, a person suffering damage may at any time, request the court to order an operator to provide specific information in so far as this is necessary to establish the existence of a claim for compensation under the Convention. (Art. 16)

Among human rights instruments, the *African Charter on Human and Peoples’ Rights*, (Banjul June 26, 1991) Article 7 provides that “every individual shall have the right to have his cause heard”. In the Inter-American Human Rights system, the right to access judicial remedies is deemed the fundamental guarantor of rights at the national level.⁵¹⁵ Article 25 of the *American Convention* provides that “[e]veryone 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 ...”.⁵¹⁶ This means that individuals must have access to judicial recourse to vindicate the rights to life, physical integrity, and a safe environment, especially when these rights are expressly protected in a state’s constitution.⁵¹⁷ Indigenous and local communities must have access to justice to ensure effective judicial protection respecting claims on ancestral lands.⁵¹⁸

⁵¹⁴ EMuT, 993:19.

⁵¹⁵ *Report on Ecuador*, *supra* note, at 93.

⁵¹⁶ American Convention, *supra* note, Art. 25.

⁵¹⁷ *Ecuador Report*, *supra* note, at 93.

⁵¹⁸ See *Sawhoyamaya Indigenous Community Case*; *Awas Tingni Case*; *Indigenous Community Yakye Axa v. Paraguay*, 2005 Inter-Am. Ct. H.R. (ser. C) No. 125 (June 17, 2005).

Paragraph 2 takes into consideration Principle 6(4) of the ILC Draft Principles on the Allocation of Loss in the Case of Transboundary Harm Arising Out of Hazardous Activities; see paragraph 10 (pp. 176-168) of the ILC commentaries, illustrating the importance of lump sum agreements and compensation commissions in this field.

ARTICLE 57

NON-DISCRIMINATION

Victims of transboundary damage shall have the right of access to remedies in the State Party 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.

This Article draws upon those international instruments that explicitly extend the right to a remedy beyond the nationals of a state.⁵¹⁹ International agreements may contain obligations to grant a potential or de facto injured person a right of access to any administrative or judicial procedure equal to that of nationals or residents. Equal access to national remedies has been considered one way of implementing the polluter pays principle.

ARTICLE 58

HARMFUL ACTIVITIES

States of origin Parties to the present Covenant shall cease activities causing significant transboundary harm to the environment in the course of their normal operation and, if appropriate, make full reparation for the damages caused during the development of the activity.

According to Article 58, activities which cause significant damage in their normal operation should cease operating. Such activities were left out of the liability topic by the ILC,⁵²⁰ but as with hazardous activities, the State of origin is obliged by this Covenant to notify, consult and eventually

⁵¹⁹ OECD Recommendation on Equal Right of Access in Relation to Transfrontier Pollution, May 11, 1976, C(76)55(Final); Espoo Convention (1991); Helsinki Convention on Transboundary Effects of Industrial Accidents (1992); UN Convention on the Non-Navigational Uses of International Watercourses (1997).

⁵²⁰ These were the words of the Commission when it decided to leave the issue out of the topic: "Attention should be focused at this stage on drafting articles in respect of activities having a risk of causing transboundary harm and [that] the Commission should not deal at this stage with other activities which in fact cause harm ... the articles should deal first with preventive measures in respect of activities creating a risk of causing transboundary harm...". *Yearbook...1992.*, Vol. II (Part Two), Para. 346.

negotiate with the affected State or States a régime to regulate the activity in question or to cease it altogether. The system of dispute settlement (Article 69 of the Covenant) is expected to resolve possible disagreements of the parties with respect, for instance, to the nature of the activity, *i.e.* whether the activity in question is a harmful or a hazardous one, or any other disagreement the Parties may have in this regard. On the other hand, consent of the States concerned would preclude the wrongfulness of carrying on such an activity within the jurisdiction of a State. That possibility exists: the Expert Group of the World Commission of Environment and Development thus stated that if an activity “causing harm that is substantial but far less than the overall technical and socio-economic cost or loss of benefits involved in preventing or reducing such interference” were planned, the State of origin must “enter into negotiations with the affected State on the equitable conditions, both technical and financial, under which the activity could be carried out”.⁵²¹

Prevention obligations of the State of origin like notification, information and consultation with likely affected States are common for both hazardous and harmful activities because the planned activity causes or may cause transboundary environmental harm. The above quotation from the Brundtland Expert Group may serve as a possible guideline for the parties or the arbitrator, bearing always in mind that some forms of damage to the environment may well transcend the bilateral concerns of the States directly affected.⁵²²

As regards existing harmful activities which cannot be eliminated from modern life, such as the heating of homes or motoring, responsibility does not seem to be the most adequate means to control the damage they cause (acid rain, pollution of the biosphere, etc). They should be a matter for collective action and monitoring, so that their harmful impacts are reduced to a limit determined by the highest state of the art in technology, on the one hand, and economic feasibility on the other.

Cessation is required, under general international law as codified by the ILC in 2001, in the event of continuous acts in breach of international obligations; *i.e.*, in this case continuous acts causing transboundary environmental damage.

A caveat seems pertinent here, however: an act is not an activity. While certain acts of an activity may be harmful, the activity may change and thereby lose its harmful nature once harmful acts are suppressed or replaced by other, harmless, acts. Consequently, if the transboundary environmental damage ceases as a result of remedial measures modifying the processes or mechanisms of the activity concerned, the activity may be allowed to continue. If, however, the continuous act causing the damage is inseparable from the activity, then the latter should be terminated.

⁵²¹ *Environmental Protection and Sustainable Development* (J.G. Lammers ed., London, Dordrecht, Boston, 1986), p. 85 (Article 12).

⁵²² Some forms of environment damage may not be acceptable to the international community even if a particular State is ready to accept it, by a consideration it deems adequate, in its territory or otherwise under its jurisdiction or control. The affected environment may be protected by an imperative norm of international law.

ARTICLE 59

OFFENSES

Parties shall establish, as appropriate, criminal or administrative offenses for violations of environmental law, particularly for negligent or intentional acts causing damage to the environment or for harmful activities that have not been authorized.

Inevitably, it will be up to the Parties to enact the necessary legislative and regulatory instruments to sanction unauthorized harmful acts and activities.

ARTICLE 60

CIRCUMSTANCES PRECLUDING WRONGFULNESS

- 1. The wrongful character of acts in breach of the obligations set forth in the present Covenant shall be precluded by consent, self-defence, legal countermeasures with respect to an internationally wrongful act, *force majeure*, distress and state of necessity. The invocation of a circumstance precluding wrongfulness is without prejudice to**
 - (a) compliance with the obligation in question, if and to the extent that the circumstance precluding wrongfulness no longer exists, and**
 - (b) the question of compensation for any material loss caused by the act in question.**
- 2. In cases where there are no circumstances precluding wrongfulness, but the State affected suffers the damage due in part to its own negligence, the extent of any redress or the level of any compensation may be reduced to the extent that the damage is caused by the negligence of that State Party.**

Article 60 distinguishes two different causes of exemption from responsibility, one where there is no responsibility because the wrongfulness of the act has been precluded, and the other where the negligence of the affected State has wholly or partially been the cause of the damage.

Paragraph 1 restates the well-established rule that certain circumstances may preclude wrongfulness. In other words, wrongful acts become lawful through the intervention of one of those circumstances, which according to the 2001 ILC articles, include consent of the States concerned, self-defence, countermeasures with respect to an internationally wrongful act, *force majeure*, distress and state of necessity. If a State Party cannot comply with an obligation of the Covenant, including the duty to prevent transboundary environmental damage, because one of the circumstances precluding wrongfulness has changed the nature of an act from wrongful to lawful, the acting State does not incur responsibility. Sub-paragraphs (a) and (b) follow those of Article

27 of the ILC for the same reasons. *Paragraph 2* restates the rule that the amount of compensation due may be reduced in cases of contributory negligence; *i.e.*, if the affected State in turn has failed to observe obligations of due diligence.

ARTICLE 61

EXCEPTIONS TO LIABILITY

There shall be no liability if the damage is:

- a) **caused by hostilities conducted in conformity with the rules applicable in armed conflict and the requirements of Article 36 of this Covenant, without prejudice to the question of responsibility for a violation of the prohibition of the use of force;**
- b) **directly due to a natural phenomenon of an exceptional and inevitable character; or**
- c) **caused by an act or omission of the affected State or of a third party.**

Article 61 restates exemptions well recognized in general international law (armed conflict, *force majeure*, third-party intervention), for which precedents also exist in numerous environmental protection conventions.⁵²³ The one departure from precedent is to qualify the exemption for armed conflicts by requiring compliance with Article 36 (Military and Hostile Activities), thereby establishing responsibility and liability for breaches of that provision which cause environmental harm.

ARTICLE 62

COMPETENT COURT AND APPLICABLE LAW

1. **Actions for compensation of damages attaching to the civil liability of the operator may be brought only in the competent courts of a State Party that is either the affected State, the State of origin or the State where the defendant has his domicile or residence or principal place of business.**
2. **The competent court shall apply its national law in all matters of substance or procedure not specifically dealt with in these articles.**

⁵²³ See especially Article IV of the Vienna Nuclear Liability convention (1963), Article III of the Oil Pollution Civil Liability Convention (1969), the Seabed Liability Convention (1977), and the Lugano Convention (1993).

Existing conventions differ in the choice of jurisdiction they offer the injured party.⁵²⁴ The claimant should be allowed to choose between several jurisdictions, depending on which advantage is most important: (a) the courts of the State of origin, where it may be easier for the injured party to obtain evidence about the original incident; (b) the affected State, where it may be easier to assemble evidence of the harm, and where the injured parties are presumably more familiar with the relevant procedure, if they do in fact reside there. The claimant should find it easier to pursue his claim if he is not obliged to take proceedings far from his place of residence, with all the costs and uncertainties that entails. A third possibility might be the courts of the place where the claimant has his habitual residence, is domiciled, or has his principal place of business, for the reasons just mentioned in connection with the previous alternative.⁵²⁵ Giving the claimant a choice of jurisdictions means also to give him some choice of applicable law: both choices contribute to counter-weighting the generally unfavourable position of having to litigate in a foreign jurisdiction.

⁵²⁴ The Nuclear Liability Conventions of Paris (Article 13) and Vienna (Article XI) limit the choice to the competent court of the State where the nuclear installation is situated. The 1999 Protocol (to the 1989 Basel Convention) on Liability and Compensation for Damage Resulting from Transboundary Movements of Hazardous Wastes and Their Disposal (Article 17) establishes three bases for jurisdiction: (a) where the damage was suffered; (b) where the incident occurred; and (c) where the person alleged to be liable has his habitual residence or principal place of business. The protocol also requires each contracting party to ensure that its courts possess the competence to entertain the claims for compensation in question. Article 19 of the Lugano Convention sets forth practically the same bases for jurisdiction as the Basel protocol, except that it limits paragraph (c) to the place where the defendant has his “habitual residence”. Article 19 of the Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD), establishes four bases for jurisdiction: (a) where the damage was sustained; (b) where the incident occurred; (c) where preventive measures were taken to prevent or minimize damage (“response measures” in Article 55 of the Draft Covenant); and (d) where the carrier has his habitual residence. Article 20 of the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface mentions only the courts of the State where the damage occurred, unless otherwise agreed. Article 11 of the Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources indicates that the competent courts are (a) the courts of any State party where damage was suffered as a result of the incident; or (b) the courts of the controlling State, defined in article 1, paragraph 4, as the State party which exercises sovereign rights for the purpose of exploring for and exploiting the resources of the seabed and its subsoil in the area in or above which the installation is situated. The “controlling State” in this formulation, being the State where the installation carrying out the polluting activity is situated, would appear to correspond to the “State of origin” in the present Draft Covenant.

⁵²⁵ On the other hand, there would seem to be no good reason for allowing as a fourth option the courts of the place where response measures are taken, since everything would indicate that in the great majority of cases they would be taken in the territory either of the State of origin or of the affected State, and it is not worthwhile to allow for the somewhat remote possibility that they might be adopted in a third country.

PART X. APPLICATION AND COMPLIANCE

This Part seeks to ensure that the Covenant is implemented in an effective manner and to place it within its broader international context. Regarding the former, the Covenant contains provisions for reporting, as well as compliance and dispute-settlement mechanisms. The provision on compliance mechanisms is particularly innovative. This Part addresses how the Covenant fits into the already existing framework of international law on environment and development. The general and non-exclusive nature of the Covenant is evident by the expressed and implicit references to other treaties, as is its law-making and framework nature.

ARTICLE 63

OTHER TREATIES

Parties are encouraged to become parties to treaties furthering the objective of this Covenant.

Article 63 acknowledges the dynamic nature of the environment and legal rules concerned with it. The Draft Covenant addresses subjects already governed by many international treaties. Such treaties will undoubtedly continue to proliferate in the coming decades. The Draft Covenant does not seek to replace these treaties, but rather to build an integrated legal framework of minimum standards which underpins existing law. Thus, Article 63 encourages Parties to adhere to other related treaties. The term “endeavour to” requires States to make a good faith effort to adhere and remain Party to such treaties.

Complexities may occur where existing treaty law is not fully consistent with the contents of the Draft Covenant. To the extent that all Parties to the prior treaty are also Parties to the Covenant, the Covenant could be viewed as a successor treaty according to Article 59 of the Vienna Convention on the Law of Treaties (1969) and the earlier treaty suspended or terminated insofar as it is incompatible with the Covenant.⁵²⁶ In cases of lesser potential conflict, the provisions of the earlier treaties should be considered in light of their object and purpose and read broadly to be reconciled with the Draft Covenant obligations to the fullest extent possible. Future treaties should be drafted to be at least as strict as the obligations contained in the Draft Covenant.⁵²⁷ See Article 64 on Stricter Measures.

Implicit in Article 63 is the obligation to implement other treaties, a specific application of *pacta sunt servanda*, a fundamental principle of international law.⁵²⁸

⁵²⁶ It may also be possible to view the Draft Covenant as an agreement to modify an earlier multilateral agreement pursuant to Article 41 of the Vienna Convention on the Law of Treaties (1969).

⁵²⁷ Cf. Article 22 of the Convention on Biological Diversity (1992); Article 237 of UNCLOS (1982). See also Article 8 of the Desertification Convention which calls for coordination of activities carried out under various conventions.

⁵²⁸ See Article 34 of the Straddling Stocks Agreement (1995): “States Parties shall fulfil in good faith the

ARTICLE 64

STRICTER MEASURES

- 1. The provisions of this Covenant shall not affect the right of Parties individually or jointly to adopt and implement stricter measures than those required under this Covenant.**
- 2. The provisions of this Covenant shall not prejudice any stricter obligation which Parties have entered into or may enter into under existing or future treaties.**

Article 64 is related to the previous provision, reflecting the likelihood that States will continue to set individual and international environmental standards on matters governed by the Draft Covenant. *Paragraph 1* sets forth the general proposition that such action can be more stringent than that required under the Draft Covenant, while *Paragraph 2* affirms that stricter obligations arising from other treaties, whether past or future, are not to be prejudiced by anything in the Draft Covenant.

The Draft Covenant is thus intended to be a minimum set of obligations, upon which Parties can elaborate additional more stringent requirements at national or international levels. In particular, the Draft Covenant acknowledges that the diversity of environmental and developmental conditions around the world is vast and in many cases these differences will require more detailed and strict obligations than can be elaborated in this present document. Such differing standards may result from the need to create local or regionally specific regulations on account of particular ecosystems, pollution threats, or socio-economic factors.⁵²⁹ As such, higher standards are admissible under the Draft Covenant, although lower ones are not.

Any such higher standards must be for *bona fide* environmental purposes. Recalling Article 34(1) (Trade and Environment) of the Draft Covenant, these provisions should not be disguised trade restrictions.⁵³⁰

obligations assumed under this Agreement and shall exercise the rights recognized in this Agreement in a manner which would not constitute an abuse of right.”

⁵²⁹ Regional regulation, which may be stricter than what is provided under a global convention, is contemplated by Article VIII of the London Convention (1972), Article 197 of UNCLOS (1982), and Article 11 of the Basel Convention (1989). Article XIV (1) of CITES (1973) explicitly allows for individual States to take stricter measures.

⁵³⁰ *Cf.* Article 193 of the Lisbon Treaty on the Functioning of the European Union (2009), which allows individual Member States to introduce more stringent protective measures than those outlined in the Treaty, so long as the other provisions of the Treaty are also complied with. See also Article XIV(1) of CITES (1973).

ARTICLE 65

AREAS BEYOND THE LIMITS OF NATIONAL JURISDICTION

In areas beyond the limits of national jurisdiction, Parties shall observe the provisions of the present Covenant to the full extent of their competence. They shall cooperate to ensure that such areas are covered to the extent possible by legal regimes for their environmental protection.

Article 65 gives effect to the fundamental principles expressed in the Draft Covenant that States are required to protect and preserve the environment of areas beyond national jurisdiction (Article 13(1) (States))⁵³¹ and that the global environment is a common concern of humanity (Article 3). It operates in addition to the provisions in Part VII (Transboundary Issues). Areas beyond national jurisdiction, otherwise known as the global commons, include the high seas, the deep seabed, and outer space.

Many provisions of international law already provide protection to these areas. The most comprehensive relate to the marine environment, as codified by Parts VII (Section 2) and XII of UNCLOS (1982). Even prior to its adoption, several international agreements regulated the taking of marine resources⁵³² and pollution⁵³³ of the high seas. The norms governing outer space are not as detailed, although elements of a precautionary regime exist.⁵³⁴

The reference to “the full extent of their competence” affirms that under general international law Parties have jurisdiction over and are responsible for State activities as well as those of their nationals⁵³⁵ and vessels flying their flags.⁵³⁶

⁵³¹ See also Principle 21 of the Stockholm Declaration (1972); Helsinki Final Act (1975) (Basket 5 on Environment); Principles 3, 21(d) and 21(e) of the World Charter for Nature (1982); and Principle 2 of the Rio Declaration (1992).

⁵³² E.g., Whaling Convention (1946), Atlantic Tunas Convention (1966). See also FAO High Seas Fishing Agreement (1993). *Cf. Behring Sea Fur Seals* arbitration; *Fisheries Jurisdiction* case.

⁵³³ There are international rules and standards for various sources of pollution: e.g., on dumping of waste, the London Convention (1972) and North-East Atlantic Pollution Convention (1990); on pollution from vessels: MARPOL Convention (1973) and its 1978 London Protocol, SOLAS Convention (1974); on oil pollution: Intervention Convention (1969), Oil Pollution Civil Liability Conventions (1971/1992) and Fund Conventions (1992/2003); for radioactive pollution from nuclear tests, Nuclear Test Ban Treaty (1963) (*cf. the Nuclear Tests* case).

⁵³⁴ See Article 9 of the Outer Space Treaty (1967); Article 2 of the Space Objects Liability Convention (1972); Article VI Space Objects Registration Convention (1975); and Article 7 of the Moon Treaty (1979).

⁵³⁵ But this is only in certain cases, particularly in relation to criminal law.

⁵³⁶ *Cf.* Article 4(b) of the Convention on Biological Diversity (1992). Also note the requirement under Article 36(5) (Military and Hostile Activities) that all military personnel, aircraft, vessels and installations are also subject to rules of environmental protection.

ARTICLE 66

RELATIONS WITH NON-PARTIES

Parties shall encourage non-Parties to act in a manner that is consistent with the objective of this Covenant.

Article 66 is premised on the view that the traditional concept of reciprocity in treaty making is inappropriate to the attainment of sustainable development. The obligations contained in the Draft Covenant are intended to reflect the dynamic, indivisible and interdependent nature of the global environment. The international community as a whole is intended to benefit from the implementation of the Draft Covenant, not only those Party to it.

Article 66 does not purport to impose duties on third States, in accordance with Article 34 of the Vienna Convention on the Law of Treaties (1969),⁵³⁷ except to the extent that the Draft Covenant is declaratory of customary international law; third States are free to indicate their assent to the obligations contained herein without necessarily becoming Parties. The Draft Covenant also does not grant non-Parties particular benefits from Parties, except to the extent that they may receive such benefits in the course of a Party complying with its obligations under the Draft Covenant. For example, a Party is not required to provide additional development assistance to non-Parties, but should it choose to provide such assistance, it will be required to conduct an environmental impact assessment (Article 52 (International Financial Resources)). At the same time, the Draft Covenant seeks to create a minimum set of standards to be applied universally by the Parties. As such, this provision can operate to prevent non-Parties from gaining any significant competitive advantage over States bound by it. Other environmental treaties contain similar provisions.⁵³⁸

⁵³⁷ Note that the Draft Covenant does not purport to be an exception to this rule, as is Article 2(6) of the UN Charter (1945).

⁵³⁸ See e.g., Article X of CITES (1973), Article 7 of the Basel Convention (1989), and Article 4 of the 1987 Montreal Protocol. Article 17 of the Straddling Stocks Agreement (1995) goes further. A State which is not a member of a sub-regional or regional fisheries management organization or is not a participant in one and which does not otherwise agree to apply the conservation and management measures established by such organization or arrangement, is not discharged from the obligation to cooperate, in accordance with the Convention and this Agreement, in the conservation and management of the relevant straddling fish stocks and highly migratory fish stocks. Such State shall not authorize vessels flying its flag to engage in fishing operations for the straddling fish stocks or highly migratory fish stocks which are subject to the conservation and management measures established by such organization or arrangement.

ARTICLE 67

REPORTING

Parties undertake to submit periodic reports to the Secretary-General of the United Nations on the measures they have adopted, progress made, and difficulties encountered in implementing their obligations under this Covenant.

Article 67 requires each Party to submit regular national reports on its experience in implementing the Draft Covenant. This is intended to assist each Party to identify those areas where more measures need to be taken and in measuring each Party's compliance with the Draft Covenant, related to the non-compliance procedure established under the Draft Covenant (Article 68 (Compliance and Dispute Avoidance)). A subsidiary aim of the provision is to put into operation the obligation to exchange information, a key to effective environmental protection.⁵³⁹ It will also assist Parties in deciding upon their international transfers of financial resources (Article 52 (International Financial Resources)). For these reasons, national reporting has become a standard feature of modern international environmental agreements.⁵⁴⁰

The article does not determine the precise periodicity of these reports which should be set by the Depositary (Article 78) in consultation with other Parties. It may be subject to decisions taken at the Review Conference (Article 70). The content of the reports might be based on the national action plans to be drawn up by every Party (Article 40 (Action Plans)) as well as on reports required under any other environmental treaty. Reports should include the texts or summaries of all measures adopted, including international agreements, legislation, regulations, decrees, programmes, action plans, and any other measures a Party considers relevant. The reports also should include an estimate of the effects of the enumerated measures. "Progress made and difficulties encountered" includes the factual situation (*i.e.*, state of the environment, particularly as observed when implementing Article 44 (Monitoring of Environmental Quality)) as well as an analysis of the efficacy of the legal measures taken in response. Bearing in mind differences of capacity, Parties should, as far as possible, agree on common methodologies and formats, to allow the making of useful comparisons. This could perhaps be discussed during Review Conferences (Article 70).

⁵³⁹ See Article 49 (Information and Knowledge) of the Draft Covenant. Article 78(2)(a) (Depositary) requires the Depositary to disseminate these reports, preferably to all parties, and it is contemplated that the reports referred to in Article 78(2)(b) will be based on the national reports.

⁵⁴⁰ See e.g., Article 8 of the LRTAP Convention (1979); Article 5 of the Vienna Convention on the Ozone Layer (1985); Article 7 of the 1987 Montreal Protocol; Article 17 of the 1991 Madrid Protocol to the Antarctic Treaty; Article 29 of the World Heritage Convention (1972); Article 26 of the Convention on Biological Diversity (1992), Article 12 of the Climate Change Convention (1992), Article 9 of the Danube Convention (1994).

ARTICLE 68

COMPLIANCE AND DISPUTE AVOIDANCE

In the framework of environmental treaties to which they are party or by other means, Parties to this Covenant shall maintain, strengthen or promote the establishment of procedures and institutional mechanisms, including enquiry and fact-finding, to assist and encourage States to comply fully with their obligations and to avoid environmental disputes. Such procedures and mechanisms should improve and strengthen reporting requirements, and, as appropriate, include considerations of communications from members of the public

Article 68 encourages Parties to devise mechanisms for compliance and dispute avoidance within the framework of their environmental treaty obligations. “Environmental treaties” encompasses all international obligations relating to environmental and developmental matters, including the Draft Covenant.

The first element, compliance, refers to mechanisms to enhance compliance rather than to traditional dispute settlement regimes exclusively.⁵⁴¹ This is based on the view that the traditional concept of reciprocity in treaty relations is inadequate to achieve the objective of the Draft Covenant. Other, non-reciprocal fields of international law, such as human rights and the protection of Antarctica, have long used compliance mechanisms to enhance implementation of treaty obligations and prevent disputes.⁵⁴² These mechanisms avoid the need for recourse to remedies available under express dispute resolution regimes or under general international law.⁵⁴³ The Draft Covenant seeks to promote this trend, echoing Agenda 21.⁵⁴⁴

The second element, dispute avoidance, relates closely to the use of compliance mechanisms and represents a progressive development of international law although some dispute avoidance mechanisms exist.⁵⁴⁵ Meeting this obligation will not entail amending applicable treaties, since the measures contemplated here are largely informal and can be integrated into the institutional frameworks of those instruments.

⁵⁴¹ E.g., Montreal Protocol (1987); Climate Change Convention (1992); the Implementation Committee set up in 1997 under the LRTAP Convention (1979) and its Protocols; and the UNEP Guidelines on Compliance with and Enforcement of Multilateral Environmental Agreements (2002).

⁵⁴² E.g., the establishment of an inspection procedure whose reports are available under 1991 Madrid Protocol on Environmental Protection to the Antarctic Treaty (Article 14) as an additional means for ensuring compliance.

⁵⁴³ See e.g., Article 60 of the Vienna Convention on the Law of Treaties (1969).

⁵⁴⁴ See Paragraphs 39.8-39.10.

⁵⁴⁵ See Article 28 of the Straddling Stocks Agreement (1995) (“States shall cooperate in order to prevent disputes: To this end, States shall agree on efficient and expeditious decision-making procedures within sub-regional and regional fisheries management organizations and arrangements and shall strengthen existing decision-making procedures as necessary.”); and Article 17 of the Watercourses Convention

Regarding the first element, compliance mechanisms may be effective in supervising achievement of the objective of sustainable development, as well as in avoiding disputes. A non-confrontational mechanism or “constructive dialogue”⁵⁴⁶ can be useful to assess the adequacy of measures taken by Parties to implement environmental treaties, and can offer suggested means to improve, especially in cases of inadequacies due to lack of national capacity. The use of such a mechanism is particularly appropriate in the context of modern international environmental law which relies on the principle of common but differentiated responsibilities and where obligations are often progressive or interrelate.⁵⁴⁷ With such obligations, it may be difficult to determine whether an act is in compliance. A compliance mechanism may assess performance and make recommendations in a non-adversarial context, before an inter-State dispute arises.

In general, it should not be necessary to amend existing environmental treaties in order to meet this obligation, since Conferences of the Parties established by most environmental treaties tend to have sufficiently broad mandates to accommodate this requirement. Indeed, the international regime set up in order to protect the ozone layer can be considered as a model in this regard, even though the Montreal Protocol (1987) did not itself establish a compliance mechanism.⁵⁴⁸

Compliance mechanisms are linked to requirements relating to exchanges and dissemination of information.⁵⁴⁹ In particular, emphasis is placed on national reporting of measures taken to implement treaty obligations, which in the case of the Draft Covenant is required under Article 67 (Reporting). In this regard, NGO’s often have access to important environmental information and it is to be hoped that they can participate when compliance mechanisms evolve into greater use.

The provision outlines three requisite characteristics of compliance mechanisms: that they be simple, transparent, and non-confrontational. These are sought in the regime established under the Montreal Protocol (1987). One positive factor in that agreement is that decisions on how to respond to non-compliance are left to the main institutional body, the Meeting of the Parties.

(1997) (“States shall enter into consultations and, if necessary, negotiations with a view to arriving at an equitable resolution of potential disputes. Negotiations shall be conducted on the basis that each state must in good faith pay reasonable regard to the rights and legitimate interests of the other State.”)

⁵⁴⁶ E.g., the review process of the UN Human Rights Committee.

⁵⁴⁷ Convention on Biological Diversity (1992) and Climate Change Convention (1992).

⁵⁴⁸ The only mention of such a mechanism appears in Article 8 of the 1987 Montreal Protocol, which reads:

The Parties, at their first meeting, shall consider and approve procedures and institutional mechanisms for determining non-compliance with the provisions of this Protocol and for the treatment of Parties found to be in non-compliance.

The mechanism was established by a decision of the parties (UNEP/OzL.Pro.4/15, 25 November 1993). The compliance mechanism established under the Montreal Protocol can be triggered by one party against another, the Secretariat to the relevant treaty, and by a Party in respect of itself.

⁵⁴⁹ See e.g., Article VI of the FAO High Seas Fishing Agreement (1993), which specifies in detail what information is to be exchanged. See also Articles 18 (Emergencies), 37 (Transboundary Environmental

It is apparent that to be effective, compliance mechanisms should coordinate with other treaty bodies, such as its secretariat and financial mechanism, as well as with relevant international organizations. The particular action available once the compliance mechanism has been activated might vary on the basis of specific subject matter and should be devised within the context of each environmental treaty. In the case of the Draft Covenant, matters may proceed to the attention of the Review Conference (Article 70).

The rationale for dispute avoidance, the second element of this provision, is that it is generally agreed that it is not possible to quantify monetarily some types of environmental damage or to achieve full restoration to the *status quo ante* in all cases of breach of an international obligation.⁵⁵⁰ Thus, it is better to prevent such damage from occurring than to seek formal dispute resolution after the fact. Article 68, accordingly, would have Parties act before a situation escalates into a formal dispute. Some examples of this might include provision of financial resources, technical assistance, or transfer of technology. The relevant provisions of the Draft Covenant covering these matters should continue to apply in cases of non-compliance. In order to identify when circumstances warrant such action, mechanisms and procedures should be developed for regular information exchange.⁵⁵¹ Coordination and cooperation with relevant international organizations should enhance the ability to avoid disputes. Finally, disputes may be resolvable in national courts and decisions there made enforceable in the jurisdictions of other Parties.⁵⁵²

Institutional arrangements can facilitate dispute avoidance. The 1991 ECE Convention on Environmental Impact Assessment in a Transboundary Context establishes an inquiry commission which can be triggered by any Party in the event that agreement cannot be reached on whether it is likely that a significant transboundary environmental impact will occur.⁵⁵³ The experience of the European Commission as a forum to resolve matters, avoiding their submission to the European Court of Justice, has been positive. The implementation committees established in connection with compliance procedures under other instruments also can be effective in this context,⁵⁵⁴ as can the technical bodies established under some environmental treaties.⁵⁵⁵ Similarly, the verification pro-

Effects), 39 (Transboundary Natural Resources), 44 (Monitoring of Environmental Quality), and 49 (Information and Knowledge).

⁵⁵⁰ See e.g., *Chorzów Factory* case (Jurisdiction). See also *Chorzów Factory* case (Indemnity).

⁵⁵¹ See e.g., Article VII of the US-Canada Air Quality Agreement (1991)) as well for early notification and consultation (See paragraph 39.10 of Agenda 21 (1992)). Environmental impact assessments (see Article 42) and measures to mitigate the environmental risks posed by approved activities should also be undertaken (see e.g., Article V of the US-Canada Air Quality Agreement (1991)).

⁵⁵² See e.g., Oil Pollution Civil Liability Convention (1969); Canada-US Agreement on Fisheries Enforcement (1990).

⁵⁵³ Article 3(7) and Appendix IV.

⁵⁵⁴ See e.g., the committees established under the 1987 Montreal Protocol; Articles 10 and 11 of the 1991 Madrid Protocol; Article 8 of the 1985 Helsinki Protocol on the Reduction of Sulphur Emissions to the LRTAP Convention; Article VIII of the US-Canada Air Quality Agreement (1991).

⁵⁵⁵ E.g., Article 25 of the Convention on Biological Diversity (1992) creates a Subsidiary Body on Scientific, Technical and Technological Advice.

cedures established under some treaties to investigate alleged non-compliance, whether through a secretariat⁵⁵⁶ or through specialized arrangements,⁵⁵⁷ can facilitate negotiations aimed at preventing matters from escalating into a formal dispute. Finally, the jurisdiction of the International Court of Justice to hand down non-binding advisory opinions can be invoked in certain cases to provide guidance to States.⁵⁵⁸

ARTICLE 69

SETTLEMENT OF DISPUTES

- 1. Parties shall settle disputes concerning the interpretation or application of this Covenant by peaceful means, such as by negotiation, enquiry, mediation, conciliation, arbitration, and judicial settlement, and where appropriate, resort to regional agencies or arrangements, or by any other peaceful means of their own choice.**
- 2. If Parties to such a dispute do not reach agreement within one year following the notification by one Party to another that a dispute exists, the dispute shall, at the request of one of the Parties, be submitted to either an arbitral tribunal, including the Permanent Court of Arbitration, or to judicial settlement, including by the International Court of Justice and the International Tribunal for the Law of the Sea as appropriate.**

Article 69 establishes a non-exhaustive list of venues available to Parties seeking to peacefully settle disputes concerning the interpretation or application of the Draft Covenant.⁵⁵⁹ In contrast to Article 68, this provision applies once a formal dispute exists. It allows parties to a dispute the flexibility to pursue peaceful means of their choice. The flexibility provided in the Draft Covenant is intended to encourage settlement. Given the non-reciprocal nature of the Draft Covenant, it is preferable that Parties seek redress under these mechanisms rather than exercising any entitlement under general international law to repudiate the treaty.⁵⁶⁰

⁵⁵⁶ E.g., as provided for in Article 19 of the Bamako Convention (1991).

⁵⁵⁷ E.g., as those established under the Verification Annex to the Chemical Weapons Convention (1993).

⁵⁵⁸ See Article 96 of the UN Charter (1945) and Chapter 4 of the Statute of the International Court of Justice (1945) for the conditions under which the Court has such jurisdiction and the procedure to be followed.

⁵⁵⁹ This is in conformity with the obligation set forth in Article 2(3) of the UN Charter (1945), which is declaratory of customary international law.

⁵⁶⁰ See Article 60 of the Vienna Convention on the Law of Treaties (1969) on the doctrine of material breach.

Paragraph 1 follows closely the language of other global environmental treaties.⁵⁶¹ An innovation is the suggestion that the good offices of regional agencies or arrangements be employed, particularly those established under regional environmental treaties, because they may be able to achieve a satisfactory settlement where the disputants are from the same region. Given the desire to solve environmental disputes quickly and effectively, Parties should explore the “alternative” dispute resolution mechanisms before resorting to judicial settlement.

Where the subject matter of the dispute is regulated under another environmental treaty, the obligation under the Draft Covenant is discharged if the dispute settlement mechanism under the other treaty is invoked. However, recourse to such a body should occur only if the principles upon which the present Covenant is based can be integrated into that framework.

The provision applies when three conditions are satisfied. The first is that a dispute exists. This term should be interpreted broadly, in accordance with the *dicta* of the International Court of Justice that a dispute is “a disagreement on a point of law or fact, a conflict of legal views or of interests between two persons”.⁵⁶² Secondly, the dispute is between Parties, regarding either an act by another Party or by any institution which may be created under the Draft Covenant.⁵⁶³ This provision does not apply to controversies among or involving non-State actors, unless taken up by Parties.⁵⁶⁴ Thirdly, at least insofar as arbitral or judicial settlement is sought, the dispute must be one which the States involved have standing to pursue, by virtue of having a legal interest in the matter. General principles of international law can assist on the matter of standing. The International Law Commission has taken a broad view of the matter, stating that an injured State in the context of a multilateral treaty is one whose right is infringed by an internationally wrongful act “... if it is established that the right has been expressly stipulated in that treaty for the protection of the collective interests of the States Parties thereto”.⁵⁶⁵ The consequence of the environment being a “common concern of humanity” (Article 3) is that all Parties have an interest in its protection.

Paragraph 2 is intended to ensure that disputes are settled if at least one of the parties to the dispute so desires. It provides that if efforts at resolution fail after one year, any Party may submit the dispute to arbitral or judicial settlement. The purpose is to require a binding ruling by an impartial body. As the Draft Covenant is not intended to amend existing environmental treaties, it will be left to the Parties to determine the modalities of the venue. The duty of all Parties to cooperate in good faith requires that once notification of any such intention is received by the other Parties, they shall negotiate on the acceptable venue. The mechanisms listed in this provision are illustrative only, and Parties are free to devise other binding arrangements between themselves, including

⁵⁶¹ See e.g., Article 20 of the Basel Convention (1989); Article 14 of the Climate Change Convention (1992); Article XXV of the Antarctic Marine Living Resources (1980) Convention.

⁵⁶² See e.g., *Southwest Africa (preliminary Objections)* case; *Mavrommatis Palestine Concessions (Jurisdiction)* case; *Cameroons* case; *Peace Treaties* case; *Nuclear Tests* case; *Headquarters* case.

⁵⁶³ See *ICAO Council* case.

⁵⁶⁴ See *Mavrommatis Palestine Concessions (Jurisdiction)*, (*Greece v. United Kingdom*).

⁵⁶⁵ Article 42 of the ILC Articles on State Responsibility.

recourse to national judicial bodies. All parties to the dispute must treat as binding any ruling of such a body.

ARTICLE 70

REVIEW CONFERENCE

After the entry into force of this Covenant, the Secretary-General of the United Nations shall convene every five years a conference of the Parties to it in order to review its implementation. The United Nations, its specialized agencies and the International Atomic Energy Agency, as well as any State or regional economic integration organization not party to this Covenant may be represented at the Review Conference as Observers. The International Union for Conservation of Nature and Natural Resources and the International Council for Science may also be represented as observers. Any non-governmental organization accredited to the UN Economic and Social Council and qualified in matters covered by this Covenant, may be represented at a session of the Review Conference as an observer in accordance with the rules of procedure the Review Conference may adopt.

Article 70 provides a framework, in the form of regular meetings, by which the implementation of the Draft Covenant can be reviewed by Parties to it. Meetings on the particulars of implementation can be useful because many of the obligations set forth in the Draft Covenant are ones of result, without specifying means. In addition, unforeseeable changes in the international community or the global environment may necessitate adjustments to the Draft Covenant. The Draft Covenant covers matters which are addressed in a number of other international instruments and significant aspects of their implementation may require consideration within the framework of the Draft Covenant. Finally, review conferences are intended to be occasions when detailed multilateral discussion can take place on all matters requiring States to cooperate with each other.

The functions of the review conference have been omitted deliberately from the text, in the expectation that the Parties themselves will tailor this process to their needs. A conference might decide to invoke the formal amendment procedure outlined in Article 71 (Amendment). In other circumstances, less formal modifications may be discussed. Another conference might adopt an agreed interpretation of a set of provisions. This is particularly important for the Draft Covenant which is intended to evolve over a long period of time. Finally, review conferences may follow up or act on the recommendations made under any compliance mechanism set up (see Article 68).

Experience with the review conference may lead Parties to decide that a more elaborate international institutional arrangement is necessary to support the implementation of the Draft Covenant. Initially, however, Article VIII of ENMOD, which provides for an initial review conference to be convened with a possibility of future meetings, if Parties agree, was considered a suitable model for the Draft Covenant. The importance of the matters regulated by this Draft Covenant suggested an alteration from this formula so that review conferences occur on a regular basis; five years should suffice to ensure consistency without redundancy.

Article 66 makes provision for bodies which may participate in the review conference as observers. The provision follows the language of equivalent provisions in existing global environmental treaties,⁵⁶⁶ save in four respects.

First, express mention is made of the entitlement of any regional economic integration organization (REIO) that is not party to participate as an observer. It is possible that an REIO, which intends to become a Party, has not completed all the necessary procedures by the time the first or even subsequent review conferences take place.⁵⁶⁷ There is no policy reason for treating such organizations differently from States who are not yet parties. Secondly, an automatic entitlement to participate as observers is accorded the IUCN and the ICSU: this reflects the close relationship of IUCN to the development of the Draft Covenant, and recognizes that both IUCN and ICSU have potential to contribute to the implementation of the Draft Covenant, on account of their wide-ranging expertise. Thirdly, in addition to applying the usual criterion that NGO observers must be qualified in matters covered by the Draft Covenant, NGOs must also be accredited with ECOSOC. The ECOSOC list of observers is long, but it is still limited and will keep the number of NGOs entitled to participate to a manageable number. Finally, many precedents specify that NGOs may be allowed to participate “unless at least one third of the Parties present object”. This point is left to be addressed by the rules of procedure of the review conference. Parties retain the discretion on how to agree rules of procedure, but it is customary for them to be adopted by consensus.⁵⁶⁸

PART XI. FINAL CLAUSES

Since the Draft Covenant is intended to become a binding global treaty, it must contain a set of technical rules governing issues such as becoming a Party, entry into force, amendments etc. Part XI sets forth these rules, mostly standard clauses based on well-established precedents in international environmental law.

ARTICLE 71

AMENDMENT

- 1. Any Party may propose amendments to this Covenant. The text of any such proposed amendment shall be submitted to the Secretary-General of the United Nations who shall transmit it, within six months, to all Parties.**
- 2. At the request of one-third of Parties, the Secretary-General of the United Nations shall call a special conference to consider the proposed amend-**

⁵⁶⁶ E.g., Article 7(6) of the Climate Change Convention (1992).

⁵⁶⁷ E.g., this occurred for the European Union at the first meeting of the Parties to the Basel Convention (1989).

⁵⁶⁸ E.g., Article 23 of the Convention on Biological Diversity (1992) and Article 15 of the Basel Convention (1989).

ment. Parties shall make every effort to reach agreement on any proposed amendment by consensus. If all efforts at reaching a consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a two-thirds majority vote of Parties to this Covenant which are present and voting at the special conference. The adopted amendment shall be communicated by the Secretary-General of the United Nations, who shall circulate it to all Parties for ratification, acceptance or approval. For purposes of this Article, present and voting means Parties present and casting an affirmative or negative vote.

- 3. Instruments of ratification, acceptance or approval in respect of an amendment shall be deposited with the Secretary-General of the United Nations. An amendment shall enter into force for those States accepting it on the ninetieth day after the date of receipt by the Secretary-General of the United Nations of an instrument of ratification, acceptance or approval by at least two-thirds of the Parties. An amendment shall enter into force for any other Party on the ninetieth day following the date on which that Party deposits its instrument of ratification, acceptance or approval of the said amendment with the Secretary-General of the United Nations.**

The present Article diverges from the precedents only in that its second paragraph provides for a special conference convened to consider proposed amendments if one-third of the Parties so request. This is to be contrasted with the general provision in other treaties for amendments to be adopted “at a meeting of the Conference on the Parties”.⁵⁶⁹ The need to provide expressly for the holding of a special conference follows from the fact that the present Covenant envisages a Review Conference only once every five years (Article 70), whilst the precedents provide for meetings of their Parties at regular intervals, often once a year.⁵⁷⁰ The procedure for the adoption of amendments is a standard one in accordance with other environmental treaties. The provisions of the Vienna Convention on the Law of Treaties (1969) apply to the case of those States which do not adhere to an amendment which has entered into force,⁵⁷¹ as it does to the case of becoming Party to the Covenant after an amendment is in force.⁵⁷²

⁵⁶⁹ E.g., Article 15 of the Climate Change Convention (1992); Article 29 of the Convention on Biological Diversity (1992); Article 17 of the Basel Convention (1989) and Article 9 of the Vienna Convention on the Ozone Layer (1985).

⁵⁷⁰ E.g., Article 15 of the Climate Change Convention (1992), Article 29 of the Convention on Biological Diversity (1992), Article 17 of the Basel Convention (1989), Article 9 of the Vienna Convention on the Ozone Layer (1985), Article 313 of UNCLOS (1982).

⁵⁷¹ See Article 40(4) of the Vienna Convention on the Law of Treaties (1969).

⁵⁷² See Article 40(5) of the Vienna Convention on the Law of Treaties (1969).

ARTICLE 72

SIGNATURE

- 1. This Covenant shall be open for signature at _____ by all States and any regional economic integration organization from _____ until _____.**
- 2. For purposes of this Covenant, regional economic integration organization means an organization constituted by sovereign States of a given region, to which its Member States have transferred competence in respect of matters governed by this Covenant and which has been duly authorized, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to it.**

The length of time for the Draft Covenant to be open for signature and whether the Covenant should be open for signature at more than one location have been left blank in *Paragraph 1* because they are political issues to be decided by the negotiating States. According to the normal practice in other environmental treaties, signature is not an expression of consent to be bound.⁵⁷³ Subsequent to signature but prior to ratification, acceptance or approval, States and REIOs are required to refrain from acts which would defeat the object and purpose of the Covenant.⁵⁷⁴

The definition in *Paragraph 2* of “regional economic integration organizations” echoes the language of other environmental treaties.⁵⁷⁵ The key phrase in the definition is “to which its Member States have transferred competence”. This distinguishes a REIO from other international organizations. The most prominent example to date of an REIO is the European Union.

ARTICLE 73

RATIFICATION, ACCEPTANCE OR APPROVAL

- 1. This Covenant shall be subject to ratification, acceptance or approval by States and by regional economic integration organizations. Instruments of ratification, acceptance, or approval, shall be deposited with the Secretary-General of the United Nations.**
- 2. Any regional economic integration organization which becomes party to this Covenant without any of its Member States being party shall be bound by all**

⁵⁷³ Article 12 of the Vienna Convention on the Law of Treaties (1969) lays out specific conditions for signature to be binding.

⁵⁷⁴ See Article 18 of the Vienna Convention on the Law of Treaties (1969).

⁵⁷⁵ E.g., Article 1(6) of the Vienna Convention on the Ozone Layer (1985).

the obligations under this Covenant. In the case of such organizations, one or more of whose Member States is party to this Covenant, the organization and its Member States shall decide on their respective responsibilities for the performance of their obligations under this Covenant. In such cases, the organization and the Member States shall not be entitled to exercise rights under this Covenant concurrently.

- 3. In their instruments of ratification, acceptance or approval, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by this Covenant. These organizations shall also inform the Depositary of any relevant modification in the extent of their competence.**

The normal practice in environmental treaties⁵⁷⁶ is to require an expression of consent to be bound in the form of ratification, acceptance or approval (*Paragraph 1*).⁵⁷⁷ It is now commonplace for such provisions in environmental treaties to specify the way in which the treaty's obligations bind REIOs and their member states. For example, such provisions have allowed the European Communities to become party to numerous environmental treaties. The provisions of (*Paragraph 2*) ensure that, between them, a REIO and its Member States will observe every obligation, recognizing that if a particular obligation is met by the one it need not be met by the other. (*Paragraph 3*) requires REIOs to declare at the time of ratification, rather than at signature as required in certain treaties,⁵⁷⁸ the extent of their competence with regard to the Draft Covenant.

ARTICLE 74

ACCESSION

- 1. This Covenant shall be open for accession by States and by regional economic integration organizations. The instruments of accession shall be deposited with the Secretary-General of the United Nations.**
- 2. In their instruments of accession, regional economic integration organizations shall declare the extent of their competence with respect to the matters governed by this Covenant. These organizations shall also inform the Secretary-General of the United Nations of any relevant modification in the extent of their competence.**

⁵⁷⁶ Article 22 Basel Convention; Article 13 of the Vienna Convention on the Protection of the Ozone Layer; Article 34 of the Convention on Biological Diversity (1992) and Article 22 of the Climate Change Convention (1992).

⁵⁷⁷ This is provided for under Article 14 of the Vienna Convention on the Law of Treaties (1969).

⁵⁷⁸ E.g., Annex IX, Article 2, of UNCLOS (1982).

Provision for accession⁵⁷⁹ is necessary if, as in the present Covenant, it is decided to lay down a period of finite duration for signature. The language follows the precedents closely.⁵⁸⁰

ARTICLE 75

ENTRY INTO FORCE

- 1. This Covenant shall enter into force on the ninetieth day after the deposit of the twenty-first instrument of ratification, acceptance, approval, or accession.**
- 2. For each State or regional economic integration organization that ratifies, accepts, or approves, this Covenant or accedes thereto after the deposit of the twenty-first instrument of ratification, acceptance, approval, or accession, this Covenant shall enter into force on the ninetieth day after the date of deposit by such State or regional economic integration organization of its instrument of ratification, acceptance, approval, or accession.**
- 3. For the purposes of Paragraph 1 above, any instrument deposited by a regional economic integration organization shall not be counted as additional to those deposited by Member States of such organization.**

This text follows the precedents save with regard to the number of Parties required to trigger entry into force. The precedents vary considerably in this regard: UNCLOS (1982) requires sixty,⁵⁸¹ the Vienna Convention on the Ozone Layer (1985) twenty,⁵⁸² the Basel Convention (1989) twenty,⁵⁸³ the Climate Change Convention (1992) fifty,⁵⁸⁴ the Convention on Biological Diversity thirty,⁵⁸⁵ and the 1987 Montreal Protocol eleven (subject to certain qualifications).⁵⁸⁶ The number 21 was selected in this instance to enable an early entry into force while at the same time ensuring that the Covenant will become operational only when a significant number of States join. As usual, the instrument of an REIO shall not, for this purpose, be counted as additional to any deposited by its members.

⁵⁷⁹ This is permitted under Article 15 of the Vienna Convention on the Law of Treaties (1969).

⁵⁸⁰ E.g., Article 22 of the Climate Change Convention (1992); Article 14 of the Vienna Convention on the Ozone Layer (1985); Article 23 of the Basel Convention (1989) and Article 35 of the Convention on Biological Diversity (1992).

⁵⁸¹ Article 308(1).

⁵⁸² Article 17(1).

⁵⁸³ Article 25(1).

⁵⁸⁴ Article 23(1).

⁵⁸⁵ Article 36(1).

⁵⁸⁶ Article 16(1).

ARTICLE 76

RESERVATIONS

No reservations may be made to this Covenant.

Under Article 19 of the Vienna Convention on the Law of Treaties, a State may enter a reservation unless “the reservation is prohibited by the treaty”. Environmental agreements normally preclude no reservation.⁵⁸⁷ In a few instances, Parties may register exceptions with regard to technical details contained in annexes.⁵⁸⁸ The obligations contained in the Draft Covenant form an integrated and balanced whole, and are of such importance that reservations to any provisions would detract from the Draft Covenant’s object and purpose.

ARTICLE 77

WITHDRAWALS

- 1. At any time after two years from the date on which this Covenant has entered into force for a Party; that Party may withdraw from this Covenant by giving written notification to the Secretary-General of the United Nations.**
- 2. Any such withdrawal shall take effect upon expiry of one year after the date of its receipt by the Secretary-General of the United Nations, or on such later date as may be specified in the notification of the withdrawal.**

This provision follows the standard format for such clauses. The only variation among the precedents concerns the length of time one must be Party to a treaty before being permitted to withdraw from it.⁵⁸⁹ The Draft Covenant will not terminate merely because, as a result of withdrawals, the number of Parties falls below twenty-one.⁵⁹⁰

⁵⁸⁷ See e.g., Article 24 of the Climate Change Convention (1992); Article 18 of the Vienna Convention on the Ozone Layer (1985), Article 18 of the 1987 Montreal Protocol; Article 26(1) of the Basel Convention (1989).

⁵⁸⁸ For example, the listing of individual endangered species provided under Article XXIII of the CITES (1973).

⁵⁸⁹ E.g., Article 38 of the Convention on Biological Diversity (1992) requires 2 years; Article 25 under the Climate Change Convention (1992) 3 years; Article 27 under the Basel Convention (1989) 3 years; Article 19 under the Vienna Convention on the Ozone Layer (1985) 4 years; Article 17 under the LRTAP Convention (1979) and its protocols, 5 years. Some environmental treaties do not lay down any necessary qualifying period for withdrawal, such as Article 317 of UNCLOS (1982) and Article XXIV of CITES (1973).

⁵⁹⁰ See Article 55 of the Vienna Convention on the Law of Treaties (1969).

ARTICLE 78

DEPOSITARY

- 1. The Secretary-General of the United Nations shall be the Depositary of this Covenant.**
- 2. In addition to his functions as Depositary, the Secretary-General shall:**
 - (a) establish a schedule for the submission, consideration, and dissemination of the periodic reports submitted under Article 67;**
 - (b) report to all Parties, as well as to competent international organizations, on issues of a general nature that have arisen with respect to the implementation of this Covenant; and**
 - (c) convene review conferences in accordance with Article 70 of this Covenant.**

The designation of depositary is generally decided during the negotiating process. The formulation of *Paragraph 1* allows the negotiating States to follow the practice for many global environmental treaties in nominating the UN Secretary-General or a State as Depositary.⁵⁹¹ The requirements of depositaries set out in the Vienna Convention on the Law of Treaties apply.⁵⁹² *Paragraph 2* sets forth three other functions of the Secretary-General.⁵⁹³ The first is to give effect to the requirement under Article 67 (Reporting) of the Draft Covenant that Parties file periodic reports on the implementation of the Covenant. A schedule for the submission of such reports should be established after full consultation with the Parties. It may be necessary to allow some flexibility to developing countries which may not have the capacity to prepare frequent reports. Discretion on dissemination of the reports is vested in the Depositary, although it is to be hoped that the reports will gain the widest possible circulation. The second function arises out of the provision for consideration of the periodic reports. It requires the Depositary to make known issues of a general nature which arise out of the implementation of the Draft Covenant. These are issues, or a pattern of issues, which relate to a number of Parties. These reports are to go to all Parties and to competent international organizations, although dissemination to others is not prohibited. Competent international organizations can include other UN bodies, such as the Commission on Sustainable Development, as well as regional or bilateral environmental bodies or the secretariats of other international environmental conventions. The substance of the reports may form the basis

⁵⁹¹ See e.g., Article 19 of the Climate Change Convention (1992); Article 41 of the Convention on Biological Diversity (1992); Article 28 of the Basel Convention (1989); Article 319 of the UNCLOS (1982); and Article 20 of the Vienna Convention on the Ozone Layer (1985).

⁵⁹² Article 77(1) of the Vienna Convention on the Law of Treaties (1969).

⁵⁹³ Article 77(1) of the Vienna Convention on the Law of Treaties (1969) permits the accordance of specifically-tailored functions to the depositary.

of the agenda of a Review Conference (see Article 70), although Parties are free to raise at these Conferences issues not addressed by the Secretary-General. Parties are also entitled to resolve any difficulties informally or through any compliance mechanism which is established (see Article 69 (Settlement of Disputes)). The third function expressed in this provision is to convene the conferences of parties contemplated by the Covenant, namely the Review Conferences (Article 70) and conferences to consider amendments (Article 71).

ARTICLE 79

AUTHENTIC TEXTS

The Arabic, Chinese, English, French, Russian and Spanish texts of this Covenant are equally authentic.

IN WITNESS WHEREOF the undersigned, being duly authorized to that effect, have signed this Covenant.

It is normal for global environmental treaties to be adopted in the six official languages of the United Nations. Depositing the Covenant with the Secretary-General of the United Nations is in conformity with the requirement of the UN Charter.⁵⁹⁴

⁵⁹⁴ Article 102 of the UN Charter (1945).

TABLE OF INTERNATIONAL LEGAL INSTRUMENTS)*

Treaty Concerning the Regulation of the Salmon Fishery in the Rhine River Basin, 30 June 1885 (reprinted in EMuT 885:48) ["Rhine Fishing Convention (1885)"]

Convention for the Protection of Birds Useful to Agriculture, Paris, 19 March 1902 (30 Martens (2d) 686; 102 BFSP 969) (reprinted in EMuT 902:22) ["Paris Birds Convention (1902)"]

Treaty between the United States and Great Britain Respecting Boundary Waters Between the United States and Canada, Washington, 11 January 1909 (4 AJIL (Suppl.) 239) ["Boundary Waters Treaty (1909)"]

Geneva Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, 17 June 1925 (UKTS 27 (1930), Cmnd 5280; reprinted in EMuT 925:45) ["Geneva Gas Protocol (1925)"]

Convention Relative to the Preservation of Fauna and Flora in their Natural State, London, 8 November 1933 (UKTS 27 (1930), Cmnd 5280; reprinted in EMuT 933:83) ["Convention on Preservation of Fauna and Flora (1933)"]

Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (Washington), 12 October 1940 (161 UNTS 193; reprinted in EMuT 940:76) ["Western Hemisphere Convention (1940)"]

Charter of the United Nations, San Francisco, 1945 (1 UNTS xvi; reprinted in EMuT 945:47) ["UN Charter (1945)"]

Statute of the International Court of Justice, San Francisco, 26 June 1945 (UKTS 67 (1946), Cmnd 7015; USTS 993)

International Convention for the Regulation of Whaling, Washington, 2 December 1946 (161 UNTS 72; reprinted in EMuT 946:89) ["Whaling Convention (1946)"]

General Agreement on Tariffs and Trade, 1947 (55 UNTS 187; reprinted in EMuT 947:82) ["GATT (1947)"]

International Convention for the Protection of Birds, Paris, 18 October 1950 (638 UNTS 186; reprinted in EMuT 950:77) ["Birds Convention (1950)"]

Convention for the Protection of Human Rights and Fundamental Freedoms, Rome, 4 November 1950 (213 UNTS 221; reprinted in EMuT 950:82) ["European Human Rights Convention (1950)"]; and Protocol I, Paris, 18 May 1954

International Convention for the Prevention of Pollution of the Sea by Oil, London, 12 May 1954 (327 UNTS 3; reprinted in EMuT 954:36) ["OILPOL Convention (1954)"]

Hague Convention on the Protection of Cultural Property In the Event Armed Conflict, 14 May 1954 (249 UNTS 240) ["Hague Cultural Property Convention (1954)"]

* The short forms used in the text of the Commentary are indicated in square brackets along side the relevant entry. EMuT = International Environmental Law – Multilateral Treaties. Published by the International Council of Environmental Law.

Interim Convention on the Conservation of North Pacific Fur Seals, Washington, 9 February 1957 (314 UNTS 105; reprinted in EMuT 957:11) (as amended by subsequent protocols in 15 UST 316, TIAS 5558; 20 UST 2292, TIAS 6774; 27 UST 3371, TIAS 8368; and 32 UST 5881, TIAS 10020) [“North Pacific Seals Convention (1957)”]

Treaty Establishing the European Economic Community, Rome, 25 March 1957 (298 UNTS 11) (EMuT 957:23) [“EC Treaty as amended”]; as amended by the Single European Act, Luxembourg, 17 February 1986, and the Hague, 28 February 1986 (UKTS 31 (1989), Cmnd 9758) (EMuT 986:16); and the Maastricht Treaty on European Union, Maastricht, 7 February 1992 (OJ No C191, 29.07.1992; reprinted in EMuT 992:11)

Convention on the High Seas, Geneva, 29 April 1958 (450 UNTS 82; reprinted in EMuT 958:33) [“High Seas Convention (1958)”]

Antarctic Treaty, Washington, 1 December 1959 (402 UNTS 71) [“Antarctic Treaty (1959)”]; Protocol on Environmental Protection, Madrid, 4 October 1991 (reprinted in 30 ILM 1461 (1991) and EMuT 959:91) [“Madrid Protocol (1991)”]; and Annex VI to the Protocol on Environmental Protection to the Antarctic Treaty – Liability arising from environmental emergencies, Stockholm, 14 June 2005 (reprinted in EMuT 991:74/A)

The Indus Waters Treaty, Karachi, 19 September 1960 (1962 UNTS 126; reprinted in EMuT 960:69)

Convention on Third Party Liability in the Field of Nuclear Energy, Paris, 29 July 1960 (956 UNTS 251 (as amended by 1964 Protocol (UNTS 69 (1968), Cmnd 3755); 1982 Protocol (UKTS 6 (1989), Cmnd 659 and EMuT 960:57) [“Paris Nuclear Liability Convention (1960)”]; and Protocol to amend the Convention of 31 January 1963 Supplementary to the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy, as amended by the Additional Protocol of 28 January 1964 and by the Protocol of 16 November 1982, Paris, 12 February 2004 (not reprinted in EMuT)

Convention on the Liability of Operators of Nuclear Ships, Brussels, 25 May 1962 (IAEA Legal Series No. 4 (1966) and EMuT 962:40)

Brussels Supplementary Convention to the Paris Convention on Third Party Liability in the Field of Nuclear Energy, Brussels, 31 January 1963 (1041 UNTS 358); as amended by 1964 Protocol (UKTS 44 (1975), Cmnd. 5948 and EMuT 963:10) [“Brussels Supplementary Nuclear Energy Convention (1963)”]

Convention on Civil Liability for Nuclear Damage, Vienna, 21 May 1963 (1063 UNTS 265 and EMuT 963:40) [“Vienna Nuclear Liability Convention (1963)”]

Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, Moscow, 5 August 1963 (480 UNTS 43 and EMuT 963:59) [“Nuclear Test Ban Treaty (1963)”]

Agreement Concerning the Use of Water Resources in Frontier Waters, 17 July 1964 (552 UNTS 188)

Agreement Concerning the River Niger Commission and the Navigation and Transport on the River Niger, Niamey, 25 November 1964 (587 UNTS 19 and EMuT 964:87) [“River Niger Agreement (1964)”]

International Convention for the Conservation of Atlantic Tunas, Rio de Janeiro, 14 May 1966 (673 UNTS 63 and EMuT 966:38) [“Atlantic Tunas Convention (1966)”]

International Covenant on Civil and Political Rights, UNGA Res 2200 (XXI) (Annex), 16 December 1966 (999 UNTS 171 and EMuT 966:93) [“Covenant on Civil and Political Rights (1966)”]

International Covenant on Economic, Social and Cultural Rights, UNGA Res 2200 (XXI) (Annex), 16 December 1966 (993 UNTS 3 and EMuT 966:94) [“Covenant on Economic, Social and Cultural Rights (1966)”]

Treaty on Principles Governing the Activities of states in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, 27 January 1967 (610 UNTS 205; reprinted in EMuT 967:07) [“Outer Space Treaty (1967)”]

African Convention on the Conservation of Nature and Natural Resources, Algiers, 15 September 1968 (1001 UNTS 4; reprinted in EMuT 968:68) [“African Convention (1968)”]

European Agreement on the Restriction of the Use of Certain Detergents in Washing and Cleaning Products, Strasbourg, 16 September 1968 (788 UNTS 181; reprinted in EMuT 968:69) [“European Detergent Agreement (1968)”]; as amended Protocol, Strasbourg, 25 October 1983 (reprinted in EMuT 968:69/A; UKTS 75 (1984), Cmnd 9369)

Convention on Jurisdiction and Enforcement of Judgements in Civil and Commercial Matters, Brussels, 27 September 1968 (OJ L 304/77 1978; UKTS 10 (1988), Cmnd 306; reprinted in EMuT 968:75)

Vienna Convention on the Law of Treaties, Vienna, 23 May 1969 (1155 UNTS 331; reprinted in EMuT 969:39)

American Convention on Human Rights, San Jose, 22 November 1969 (reprinted in 9 ILM 673) [“American Convention on Human Rights (1969)”]; and Additional Protocol in the Area of Economic, Social and Cultural Rights, San Salvador, 17 November 1988 (OASTS 69; reprinted in 28 ILM 156 (1989))

Convention on Civil Liability for Oil Pollution Damage, Brussels, 29 November 1969 (973 UNTS 3; reprinted in EMuT 969:88 and 969:88/A-C) [“Oil Pollution Civil Liability Convention (1969)”]; see also Protocol, London, 19 November 1976 (UKTS 26 (1981)); and Protocol, London, 27 November 1992 (IMO Doc. LEG/CONF. 9/15, 2 December 1992)

Convention on the Intervention on the High Seas in Cases of Oil Pollution Damage, Brussels, 29 November 1969 (973 UNTS 3; reprinted in EMuT 969:89) [“Intervention Convention (1969)”]; see also Protocol, London, 2 November 1973 (UKTS 27 (1983), Cmnd 8924; reprinted in EMuT 973:83)

Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Ramsar, 2 February 1971 (996 UNTS 245; reprinted in EMuT 971:09 and 971:09/A) [“Ramsar Convention (1971)”]; as amended, Paris, 3 December 1982 (Misc 1 (1984) Cmnd 9113; reprinted in 22 ILM 698 (1983))

Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, Brussels, 18 December 1971 (1110 UNTS 58); see also [1976 Protocol] London Protocol of 25 May 1984 (IMO Doc LEG/CONF. 6/67), and Protocol of 27 November 1992 (IMO Doc LEG/CONF. 9/16); reprinted in EMuT 971:94 and 971:94/A-C) [“Fund Convention (1971)”];

Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992, London, 16 May 2003 (not reprinted in EMuT)

Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, Oslo, 15 February 1972 (UK Misc. No. 21 (1972), Cmnd. 4984); as amended by Protocol (1983) (UKTS 59 (1989)) and amendment to Annexes I and II (1985); (reprinted in EMuT 972:12 and 972:12/A, B) [“Oslo Marine Pollution Convention (1972)”]

Convention on International Liability for Damage Caused by Space Objects, Geneva, 29 March 1972 (961 UNTS 187; reprinted in EMuT 972:24) [“Space Objects Liability Convention (1972)”]

Convention on the Prohibition of the Development, Production and Stockpiling of Biological Weapons, London/Moscow/Washington, 10 April 1972 (1015 UNTS 163; reprinted in EMuT 972:28) [“Biological Weapons Convention (1972)”]

Convention for the Protection of the World Cultural and Natural Heritage, Paris, 16 November 1972 (1037 UNTS 151; reprinted in EMuT 972:86) [“World Heritage Convention (1972)”]

Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, London, 19 December 1972 (1046 UNTS 120; reprinted in EMuT 972:96) [“London Convention (1972)”]

Convention on International Trade in Endangered Species of Wild Flora and Fauna, Washington, 3 March 1973 (993 UNTS 243; reprinted in EMuT 973:18) [“CITES (1973)”]

International Convention on the Prevention Pollution from Ships, London, 2 November 1973 (UN. Leg. Series ST/LEG/SER.B/18, 461; IMCO 74.01; as amended by Protocol, London, 17 February 1978 (reprinted in 17 ILM 546 (1978) and EMuT 973:84 and 973:84/A) [“MARPOL Convention (1973)”]; and Amendments to the Annex of the Protocol of 1978 relating to the International Convention for the Prevention of Pollution by Ships, 1973 (Amendments to regulation 13G, addition of new regulation 13H and consequential amendments to the Supplement to the IOPP Certificate of Annex I of MARPOL 73/78), 4 December 2003 (not reprinted in EMuT)

Agreement on the Conservation of Polar Bears, Oslo, 15 November 1973 (27 UST 3918; reprinted in 13 ILM 13 (1974) and EMuT 973:85) [“Polar Bears Agreement (1973)”]

Nordic Convention on the Protection of the Environment, Stockholm, 19 February 1974 (1092 UNTS 279; reprinted in EMuT 974:14) [“Nordic Convention (1974)”]

Convention on the Protection of the Marine Environment of the Baltic Sea Area, Helsinki, 22 March 1974 (reprinted in 13 ILM 546 (1974) and EMuT 974:23) [“Baltic Sea Convention (1974)”]

Convention for the Prevention of Marine Pollution from Land-Based Sources, Paris, 4 June 1974 (UKTS 64 (1978), Cmnd. 7251; reprinted in EMuT 974:43) [“Paris Marine Pollution Convention (1974)”]

International Convention for the Safety of Life at Sea, London, 1 November 1974 (1184 UNTS 3; reprinted in EMuT 974:81) [“SOLAS Convention (1974)”] as amended 1998

Convention on Registration of Objects Launched into Outer Space, New York, 14 January 1975 (1023 UNTS 15; reprinted in EMuT 974:83) [“Space Objects Registration Convention (1975)”]

Convention for the Protection of the Mediterranean Sea Against Pollution, Barcelona, 16 February 1976 (1102 UNTS NI-16908; reprinted in 15 ILM 285 (1976) and EMuT 976:13, 976:13/C and 976:13/D) [“Barcelona Convention (1976)”]; see also Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-Based Sources, Athens, 17 May 1980 (reprinted in 19 ILM 869); and Protocol Concerning Mediterranean Specially Protected Areas, Geneva, 3 April 1982 (UNEP Doc) UNTS Reg. No. 24079

Convention on the Conservation of Nature in the South Pacific, Apia, 12 June 1976 (reprinted in EMuT 976:45) [“Apia Convention on South Pacific Nature (1976)”]

Agreement for the Protection of the Rhine Against Chemical Pollution, Bonn, 3 December 1976 (1124 UNTS 375; reprinted in EMuT 976:89) [“Rhine Chemical Convention (1976)”]

Convention on the Prohibition of Military or Other Use of Environment Modification Techniques, Geneva, 10 December 1976 (1108 UNTS 151; reprinted in EMuT 977:37) [“ENMOD Convention (1976)”]

Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources, London, 1 May 1977 (UK Misc No 8 (1977), Cmnd 6791; reprinted in EMuT 977:33) [“Seabed Liability Convention (1977)”]

Protocol I Additional to the Geneva Conventions of 12 August 1949 Relating to the Victims of International Armed Conflicts, 8 June 1977 (ICRC, *Protocols Additional to the Geneva Conventions of 12 August 1949*, Geneva, 1977; 1125 UNTS 3) (reprinted in EMuT 977:43) [“Additional Protocol I (1977)”]

Protocol II Additional to the Geneva Conventions of 12 August 1949 Relating to the Protection of Non-International Armed Conflicts (12 December 1977) (ICRC, *Protocols Additional to the Geneva Conventions of 12 August 1949*, Geneva (1977), pp. 89-101; 1125 UNTS 609) (reprinted in EMuT 977:44) [“Additional Protocol II (1977)”]

Regional Convention for Co-operation in the Protection of the Marine Environment From Pollution, Kuwait, 24 April 1978 (1140 UNTS 133) (reprinted in EMuT 978:31) [“Kuwait Regional Convention (1978)”]

Treaty for Amazonian Cooperation, Brasilia, 3 July 1978 (reprinted in 17 ILM 1045 (1978) and EMuT 978:49) [“Amazonian Cooperation Treaty (1978)”]

Convention on the Conservation of Migratory Species of Wild Animals, Bonn, 23 June 1979 (Cmnd 7888; reprinted in 19 ILM 11 (1980) and EMuT 979:55) [“Convention on Migratory Species (1979)”]; see also Agreement on the Conservation of Seals in the Wadden Sea, Bonn, 16 October 1990 (reprinted in EMuT 979:55/A); Agreement on the Conservation of Populations of European Bats, London, 10 September 1991 (reprinted in EMuT 979:55/B) [“EUROBATS (1991)”]; Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas, New York, 13 September 1991 (reprinted in EMuT 979:55/C/1) [“ASCOBANS (1991)”] and Amendment to the Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas, Esbjerg, 22 August 2003 (reprinted in EMuT 979:55/C/2); Agreement on the Conservation of African-Eurasian Migratory Waterbirds, The Hague, 16 June 1995 (reprinted in EMuT 979:55/E) [“AEWA (1995)”]; Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area, Monaco, 24 November 1996 (reprinted in EMuT 979:55/F) [“ACCOBAMS (1996)”]; Agreement on the Conservation of Albatrosses and Petrels, Canberra, 2 February 2001 (reprinted in EMuT 979:55/I) [“ACAP

(2001)"]; Agreement on the Conservation of Gorillas and their Habitats, Paris, 26 October 2007 (reprinted in EMuT 979:55/T)

Convention on the Conservation of European Wildlife and Natural Habitats, Berne, 19 September 1979 (UKTS 56 (1982), Cmnd 8738; reprinted in EMuT 979:70) ["Berne Convention on European Wildlife (1979)"]

Convention on the Physical Protection of Nuclear Material, Vienna, 26 October 1979 (reprinted in EMuT 979:80); and Amendment to the Convention on the Physical Protection of Nuclear Material, Vienna, 8 July 2005 (reprinted in EMuT 979:80/A)

Geneva Convention on Long-Range Transboundary Air Pollution, 13 November 1979 (UN Doc ECE/HLM.1/R.1; UKTS 57 (1983), Cmnd 9034) ((reprinted in EMuT 979:84 and 979:84/A) ["LRTAP Convention (1979)"]; see also Protocol on a Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (EMEP), Geneva, 28 September 1984 (reprinted in 24 ILM 485 (1985)); Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 Per Cent, Helsinki, 8 July 1985 (UN Doc. ECE/EB.AIR/12), renegotiated protocol adopted in 1994 (reprinted in EMuT 979:84/B); Protocol on Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes, Sophia, 31 October 1988 (reprinted in 27 ILM 698 (1988) and EMuT 979:84/C); Protocol Concerning the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes, Geneva, 18 November 1991 (UNECE, Environmental Conventions, 1992; UN Doc ECE/EB.AIR/30) (reprinted in EMuT 979:84/D); and Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution to Abate Acidification, Eutrophication and Ground-Level Ozone, Gothenburg, 30 November 1999 (reprinted in EMuT 979:84/H)

Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, 5 December 1979 (UN Gen Ass Resn 34/68, GAOR, 34th Sess, Supp 46, p. 77; (reprinted in EMuT 979:92) ["Moon Treaty (1979)"]

Convention on the Elimination of All Forms of Discrimination Against Women, New York (1979) (UNGA Resolution 34/180, GAOR, 34th Sess, Supp 46, p. 193; UKTS 2 (1989), Cmnd 643)

Agreement between Spain and Portugal on Cooperation in Matters Affecting the Safety of Nuclear Installations in the Vicinity of the Frontier, Lisbon, 31 March 1980

Convention on the Conservation of Antarctic Marine Living Resources, Canberra, 20 May 1980 (UKTS 48 (1982), Cmnd 8714; reprinted in 19 ILM 837 (1980) and EMuT 980:39) ["Antarctic Marine Living Resources Convention (1980)"]

Convention on Prohibitions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects, Geneva, 10 October 1980 (UN Doc A/CONF. 95/15 and Corr 1-5; UK Misc. 23 (1981), Cmnd. 8370) ["Inhumane Weapons Convention (1980)"]

Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region, Abidjan, 23 March 1981 (UN Doc UNEP/IG.22/7; reprinted in 20 ILM 746 (1981) and EMuT 981:23) ["West and Central African Marine Environment Convention (1981)"]

African Charter on Human Rights and People's Rights, Banjul, 20 June 1981 (OAU Doc CAB/LEG/67/3/Rev 5; reprinted in 21 ILM 52 (1982)) ["African Charter on Human Rights (1981)"];

and Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, Maputo, 11 July 2003

Agreement on Regional Cooperation in Combating Pollution of the Southeast Pacific by Hydrocarbons or Other Harmful Substances in Cases of Emergency, Lima, 12 November 1981 (ND (Loose-leaf), Doc. J. 18) (EMuT 981:85) ["South-East Pacific Hydrocarbons Agreement (1981)"]

Convention for the Protection of the Marine Environment and Coastal Areas of the South-East Pacific, Lima, 12 November 1981 (UN Doc UNEP-CPPS/IG. 32/4) (EMuT 981:84) ["South-East Pacific Marine Environment Convention (1981)"]

Regional Convention for the Conservation of the Red Sea and the Gulf of Aden Environment, Jeddah, 14 February 1982, (9 ELP 56 (1982)) and Protocol for Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful Substances in Cases of Emergency (UNEP Doc; 9 EPL 56 (1992)) (reprinted in EMuT 982:13 and 982:14) ["Jeddah Convention on the Marine Environment (1982)"]; Protocol concerning the Conservation of Biological Diversity and the Establishment of a Network of Protected Areas in the Red Sea and Gulf of Aden, Jeddah, 12 December 2005 (reprinted in EMuT 982:13/B)

UN Convention on the Law of the Sea, Montego Bay, 10 December 1982 (UN Doc A/CONF 62/122 (with corrigenda); Misc 11 (1983), Cmnd 8941) (reprinted in EMuT 982:92) ["UNCLOS (1982)"]

Agreement for Co-operation in Dealing with Pollution of the North Sea By Oil and Other Harmful Substances, Bonn, 13 September 1983 (UK Misc. 26 (1983), Cmnd. 9104; reprinted in EMuT 983:68) ["North-Sea Oil Pollution Agreement (1983)"]

Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region, Cartagena de Indias, 24 March 1983 (UKTS 38 (1988), Cmnd. 399; reprinted in 22 ILM 221 (1983)) and (EMuT 983:23, 983:24 and 983:23/B) ["Wider Caribbean Marine Environment Convention (1983)"]; Protocol Concerning Co-operation in Combating Oil Spills in the Wider Caribbean Region (UKTS 38 (1988), Cmnd. 399; reprinted in 22 ILM 221 (1983)); and Protocol Concerning Specially Protected Areas and Wildlife, Kingston, 18 January 1990 (reprinted in EMuT 990:85)

Convention on the Protection of the Ozone Layer, Vienna, 22 March 1985 (UNEP Doc IG.53/5; UKTS 1 (1990), Cmnd 910 and EMuT 985:22, 985:22/A and 985:22/B) ["Vienna Convention on the Ozone Layer (1985)"]; and Protocol on Substances that Deplete the Ozone Layer, Montreal, 16 September 1987 (UKTS 19 (1990), Cmnd 977) ["Montreal Protocol (1987)"], as amended by Adjustment and Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer, London (reprinted in 30 ILM 537 (1991)), and Copenhagen (reprinted in 32 ILM 874 (1992))

Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region, Nairobi, 21 June 1985 (UNEP Doc; EMuT 985:46) ["Eastern African Marine Environment Convention (1985)"]; Protocol Concerning Protected Areas and Wild Fauna and Flora in the Eastern African Region (reprinted in EMuT 985:47); and Protocol Concerning Co-operation in Combating Marine Pollution in Cases of Emergency in the Eastern African Region (ND (Loose-leaf) Doc. J. 26) (reprinted in EMuT 985:48)

ASEAN Agreement on the Conservation of Nature and Natural Resources, Kuala Lumpur, 9 July 1985 (15 EPL 64) (reprinted in EMuT 985:51) ["ASEAN Agreement (1985)"]

Mexico-United States: Agreement for cooperation on Environmental Programs and Transboundary Problems, Annex III, and Hazardous Wastes and Hazardous Substances, 12 November 1986 (reprinted in 26 ILM 25 (1987))

Convention on the Law of Treaties between States and International Organizations or between International Organizations, Vienna, 21 March 1986 (UN Doc. A/CONF. 129/15) (reprinted in EMuT 986:22)

Convention on Assistance in Case of a Nuclear Accident or Radiological Emergency, Vienna, 26 September 1986 (IAEA Doc. GC(SPL.1)/2, Annex II; IAEA INFCIRC 336; (reprinted in 25 ILM 1370 (1986) and EMuT 986:72) ["Nuclear Assistance Convention (1986)"]

Convention on Early Notification of a Nuclear Accident, Vienna, 26 September 1986 (IAEA Doc. GC(SPL.1)/2, Annex II; IAEA INFCIRC 335; (reprinted in 25 ILM 1370 (1986) and EMuT 986:71) ["Nuclear Notification Convention (1986)"]

Convention for the Protection of the Natural Resources and Environment of the South Pacific Region, Noumea, 24 November 1986 (reprinted in 26 ILM 38 (1987) and EMuT 986:87) ["South Pacific Convention (1986)"]; see also Protocol for the Prevention of Pollution of the South Pacific Region by Dumping, Noumea, 25 November 1986 (reprinted in EMuT 986:87/A); and Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region (reprinted in 26 ILM 58 (1987) and EMuT 986:87/B)

Convention on the Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 22 March 1989 (reprinted in 28 ILM 657 (1989) and EMuT 989:22) ["Basel Convention (1989)"]; and Basel Protocol on Liability and Compensation for Damage Resulting from the Transboundary Movements of Hazardous Wastes and their Disposal, Basel, 10 December 1999 (reprinted in EMuT 989:22/B)

International Convention on Salvage, London, 28 April 1989 (reprinted in EMuT 989:32) ["Salvage Convention (1989)"]

ILO Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries, 27 June 1989 (reprinted in 28 ILM 1382 (1989) and EMuT 989:48) ["ILO Indigenous Peoples Convention (1989)"]

Convention on the Rights of the Child, 20 November 1989 (GA Res 44/34 (Annex), 4 December 1989; (reprinted in 28 ILM 1457 (1989))

Convention for the Prohibition of Fishing With Long Driftnets in the South Pacific, Wellington, 24 November 1989 (reprinted in 29 ILM 1449 (1990) and EMuT 989:87) ["South Pacific Driftnets Convention (1989)"]

Fourth ACP-EEC Lomé Convention, 15 December 1989 (ETS 96 (1990), Cmnd 1364; (reprinted in 29 ILM 738 (1990) and EMuT 989:93) ["Lomé IV Convention (1989)"]

Canada-US Agreement on Fisheries Enforcement, 1990 (reprinted in 30 ILM 418 (1991))

Accord of Co-operation for the Protection of the Coasts and Waters of the North-East Atlantic Against Pollution Due to Hydrocarbons or Other Harmful Substances, Lisbon, 17 October 1990 (reprinted in 30 ILM 1227 (1991) and EMuT 990:79) ["North-East Atlantic Pollution Convention (1990)"] [Agreement on Co-operation for Combating Protection in the North-East Atlantic]

International Convention on Oil Pollution Preparedness, Response and Co-operation, London, 30 November 1990 (reprinted in 30 ILM 735 (1991) and EMuT 990:88) [“Oil Pollution Preparedness Convention (1990)”]

Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes Within Africa, Bamako, 29 January 1991 (reprinted in 30 ILM 775 (1991) and EMuT 991:08) [“Bamako Convention (1991)”]

Convention on Environmental Impact Assessment in a Transboundary Context, Espoo, 25 February 1991 (reprinted in 30 ILM 802 (1991) and EMuT 991:15) [“Espoo Convention (1991)”]; Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context, Kiev, 21 May 2003 (reprinted in EMuT 991:15/B); and Amendment to the Convention on Environmental Impact Assessment in a Transboundary Context, Cavtat, 4 June 2004 (reprinted in EMuT 991:15/C)

Agreement between the Government of the United States of America and the Government of Canada on Air Quality, Ottawa, 13 March 1991 (reprinted in 30 ILM 676 (1991)) [“US-Canada Air Quality Agreement (1991)”]

Convention Concerning the Protection of the Alps, 7 November 1991, 31 I.L.M. 767 (reprinted in EMuT 991:83) and its Protocols (town and country planning and sustainable development, mountain agriculture, nature protection and landscape conservation, mountain forests, soil protection, energy, tourism, transport, dispute settlement)

Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Helsinki, 17 March 1992 (reprinted in EMuT 992:20) [“ECE Transboundary Watercourses Convention (1992)”]; Protocol on Water and Health, London, 17 June 1999 (EMuT 992:20/A); Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes and to the 1992 Convention on the Transboundary Effects of Industrial Accidents, Kiev, 21 May 2003 (reprinted in EMuT 992:20/B); and Amendments to Articles 25 and 26 of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Geneva, 28 November 2003 (reprinted in EMuT 2004:14)

Convention on the Transboundary Effects of Industrial Accidents, Helsinki, 17 March 1992 (reprinted in EMuT 992:22) [“ECE Industrial Accidents Convention (1992)”]; and Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents to the 1992 Convention on the Transboundary Effects of Industrial Accidents, Kiev, 21 May 2003 (reprinted in EMuT 992:20/B)

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