



Draft International Covenant on Environment and Development

– Implementing Sustainability –
Fifth Edition: Updated Text

The Environmental Law Programme of IUCN, International Union for Conservation of Nature and Natural Resources

In cooperation with

The International Council of Environmental Law
– toward sustainable development –

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TABLE OF CONTENTS

Foreword to the fifth edition	xiii
Foreword to the fourth edition	xv
Foreword to the third edition	xvii
Foreword to the second edition	xix
Foreword to the first edition	xxi
Contributors	xxix
Table of Abbreviations	xxxiii
PREAMBLE	1
Commentary	29
Part I. OBJECTIVE	
ARTICLE 1: OBJECTIVE	2
Commentary	42
Part II. FUNDAMENTAL PRINCIPLES	2
Commentary	43
ARTICLE 2: RESPECT FOR ALL LIFE FORMS	3
Commentary	43
ARTICLE 3: COMMON CONCERN OF HUMANITY	3
Commentary	44
ARTICLE 4: INTERDEPENDENT VALUES	3
Commentary	46
ARTICLE 5: EQUITY AND JUSTICE	3
Commentary	48
ARTICLE 6: PREVENTION	3
Commentary	50
ARTICLE 7: PRECAUTION	3
Commentary	54
ARTICLE 8: PROPORTIONALITY	3
Commentary	56
ARTICLE 9: RESILIENCE	4
Commentary	56

ARTICLE 10: NON-REGRESSION	4
Commentary	57
ARTICLE 11: RIGHT TO DEVELOPMENT	4
Commentary	58
ARTICLE 12: ERADICATION OF POVERTY	4
Commentary	59
ARTICLE 13: COMMON BUT DIFFERENTIATED RESPONSIBILITIES ..	4
Commentary	60
Part III. GENERAL OBLIGATIONS	5
Commentary	62
ARTICLE 14: STATES	5
Commentary	62
ARTICLE 15: PHYSICAL AND LEGAL PERSONS	5
Commentary	64
ARTICLE 16: INDIGENOUS PEOPLES	6
Commentary	69
ARTICLE 17: INTEGRATED POLICIES	6
Commentary	72
ARTICLE 18: TRANSFER OR TRANSFORMATION OF ENVIRONMENTAL HARM	6
Commentary	73
ARTICLE 19: EMERGENCIES AND DISASTERS	6
Commentary	76
Part IV. OBLIGATIONS RELATING TO NATURAL SYSTEMS AND RESOURCES	7
Commentary	78
ARTICLE 20: STRATOSPHERIC OZONE	7
Commentary	78
ARTICLE 21: GLOBAL CLIMATE	7
Commentary	79
ARTICLE 22: AIR	7
Commentary	81

ARTICLE 23: SOIL	8
Commentary	82
ARTICLE 24: WATER	8
Commentary	84
ARTICLE 25: ECOSYSTEM SERVICES	8
Commentary	87
ARTICLE 26: ECOSYSTEM APPROACH	8
Commentary	90
ARTICLE 27: BIOLOGICAL DIVERSITY	9
Commentary	91
ARTICLE 28: CULTURAL AND NATURAL HERITAGE	9
Commentary	94
Part V. OBLIGATIONS RELATING TO PROCESSES AND ACTIVITIES ...	10
Commentary	96
ARTICLE 29: PREVENTION OF HARM	10
Commentary	97
ARTICLE 30: POLLUTION	10
Commentary	98
ARTICLE 31: NOISE	10
Commentary	100
ARTICLE 32: WASTE	10
Commentary	101
ARTICLE 33: INTRODUCTION OF ALIEN SPECIES OR MODIFIED ORGANISMS	11
Commentary	103
ARTICLE 34: FOOD AND FEED PRODUCTION	11
Commentary	105
Part VI. OBLIGATIONS RELATING TO GLOBAL ISSUES	12
Commentary	107
ARTICLE 35: ACTION TO ERADICATE POVERTY	12
Commentary	107

ARTICLE 36: CONSUMPTION AND PRODUCTION PATTERNS	12
Commentary	108
ARTICLE 37: DEMOGRAPHIC POLICIES	13
Commentary	110
ARTICLE 38: TRADE AND ENVIRONMENT	13
Commentary	112
ARTICLE 39: TRANSNATIONAL ECONOMIC ACTIVITIES	14
Commentary	116
ARTICLE 40: MILITARY AND HOSTILE ACTIVITIES	15
Commentary	119
Part VII. TRANSBOUNDARY ISSUES	16
Commentary	124
ARTICLE 41: TRANSBOUNDARY ENVIRONMENTAL EFFECTS	16
Commentary	124
ARTICLE 42: PRIOR INFORMED CONSENT	16
Commentary	128
ARTICLE 43: TRANSBOUNDARY NATURAL RESOURCES	16
Commentary	129
Part VIII. IMPLEMENTATION AND COOPERATION	17
Commentary	132
ARTICLE 44: ACTION PLANS	17
Commentary	133
ARTICLE 45: SPATIAL PLANNING	17
Commentary	133
ARTICLE 46: ENVIRONMENTAL IMPACT ASSESSMENT	17
Commentary	135
ARTICLE 47: ENVIRONMENTAL STANDARDS AND CONTROLS	18
Commentary	139
ARTICLE 48: MONITORING OF ENVIRONMENTAL QUALITY	18
Commentary	140

ARTICLE 49: CONTINGENCY AND EMERGENCY PLANNING	19
Commentary	141
ARTICLE 50: SCIENTIFIC AND TECHNICAL COOPERATION	19
Commentary	142
ARTICLE 51: DEVELOPMENT AND TRANSFER OF TECHNOLOGY ...	19
Commentary	143
ARTICLE 52: SHARING BENEFITS OF BIOTECHNOLOGY	19
Commentary	144
ARTICLE 53: INFORMATION AND KNOWLEDGE	20
Commentary	146
ARTICLE 54: EDUCATION, TRAINING AND PUBLIC AWARENESS	20
Commentary	148
ARTICLE 55: NATIONAL FINANCIAL RESOURCES	20
Commentary	149
ARTICLE 56: INTERNATIONAL FINANCIAL RESOURCES	20
Commentary	151
Part IX. RESPONSIBILITY AND LIABILITY	21
Commentary	154
ARTICLE 57: STATE RESPONSIBILITY	21
Commentary	156
ARTICLE 58: HARMFUL ACTIVITIES	21
Commentary	157
ARTICLE 59: LIABILITY	21
Commentary	159
ARTICLE 60: RESPONSE MEASURES	22
Commentary	161
ARTICLE 61: INTERNATIONAL AND DOMESTIC REMEDIES	22
Commentary	162
ARTICLE 62: NON-DISCRIMINATION	22
Commentary	163
ARTICLE 63: OFFENSES	22
Commentary	164

ARTICLE 64: CIRCUMSTANCES PRECLUDING WRONGFULNESS	23
Commentary	164
ARTICLE 65: EXCEPTIONS TO LIABILITY	23
Commentary	165
ARTICLE 66: COMPETENT COURT AND APPLICABLE LAW	23
Commentary	165
Part X. APPLICATION AND COMPLIANCE	24
Commentary	166
ARTICLE 67: OTHER TREATIES	24
Commentary	166
ARTICLE 68: STRICTER MEASURES	24
Commentary	167
ARTICLE 69: AREAS BEYOND NATIONAL JURISDICTION	24
Commentary	168
ARTICLE 70: RELATIONS WITH NON-PARTIES	24
Commentary	169
ARTICLE 71: REPORTING	24
Commentary	170
ARTICLE 72: COMPLIANCE AND DISPUTE AVOIDANCE	24
Commentary	170
ARTICLE 73: SETTLEMENT OF DISPUTES	25
Commentary	173
ARTICLE 74: REVIEW CONFERENCE	25
Commentary	175
Part XI. FINAL CLAUSES	25
Commentary	177
ARTICLE 75: AMENDMENT	25
Commentary	177
ARTICLE 76: SIGNATURE	26
Commentary	178
ARTICLE 77: RATIFICATION, ACCEPTANCE OR APPROVAL	26
Commentary	178

ARTICLE 78: ACCESSION 26
 Commentary 179

ARTICLE 79: ENTRY INTO FORCE 27
 Commentary 180

ARTICLE 80: RESERVATIONS 27
 Commentary 180

ARTICLE 81: WITHDRAWALS 27
 Commentary 181

ARTICLE 82: DEPOSITARY 27
 Commentary 181

ARTICLE 83: AUTHENTIC TEXTS 28
 Commentary 182

Table of International Legal Instruments 183

Index 197

Foreword to the fifth edition

The Draft International Covenant on Environment and Development is the result of 20 years of ongoing collaboration amongst eminent environmental lawyers, practitioners and diplomats from around the world. Launched in 1995 at the UN Congress on Public International Law, the Draft Covenant provides a blueprint for an international framework agreement consolidating and developing existing legal principles related to environment and development.

The Draft Covenant has remained a “living document” in the hope and expectation that it one day serves as a basis for multilateral negotiations. A first revision was prepared and presented to United Nations Member States in 1999 on occasion of the closing of the UN Decade of International Law. The second revision in 2004 took into consideration new developments from the Johannesburg World Summit on Sustainable Development, especially the implementation of international agreements. The most recent revision was released in 2010 on the occasion of the High-Level Meeting on Biodiversity during the 65th UN General Assembly. Since its original publication in English, translations of the articles of the Draft Covenant have been produced in Chinese, German, Italian, Russian and Spanish.

The 5th World Conservation Congress of the International Union for the Conservation of Nature and Natural Resources (Jeju, 2012) mandated in 2012 that the Draft Covenant be updated in accordance with the newest developments in the field. Ongoing revisions enable governments, parliamentarians and other actors to continue to utilize the Covenant as an authoritative source ensuring that principles and rules of international environmental law and development are addressed in policies and laws. Thus, a group of experts convened in March 2015 to strengthen the provisions and integrate a number of emerging principles and environmental challenges in line with decisions of the United Nations, its General Assembly, and the work of its Specialized Agencies and Programmes. Under the Chairmanship of Donald W. Kaniaru, Members of ICEL and the IUCN World Commission on Environmental Law deliberated and drafted necessary amendments to the articles and commentary of the Covenant.

The International Council of Environmental Law (ICEL), in cooperation with the IUCN Environmental Law Programme (IUCN ELP), presents the articles of the 5th revised edition of the Draft Covenant to the international community in the interest of strengthening momentum for global action to implement the 2030 Agenda for Sustainable Development. We recognize the spirit of cooperation that has characterized negotiations of the Sustainable Development Goals and provide the updated Covenant as a framework for implementing sustainability at all levels of society.

We once again thank Dinah Shelton for her continuing dedication to preparing the comprehensive and indispensable commentary. Aaron Laur is to be commended for shepherding the revision process from its mandate in Jeju through to this final product. As in all years past, we are grateful to the Elisabeth Haub Foundation for Environmental Law and Policy for making publication of the Draft Covenant possible. Thanks to its generosity, this publication is publicly available and accessible online at: www.iucn.org/work/programmes/environmental.law.

Wolfgang E. Burhenne
Executive Governor, International Council of Environmental Law
Member and Chair Emeritus, IUCN World Commission on Environmental Law

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 unflinching support of the Elisabeth 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 Elisabeth 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, 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 small meeting of law expert 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 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 frame-work 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
International Council of Environmental Law

Nicholas A. Robinson, Chairman
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 de-veloping 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, inter governmental 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 law making 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 law making 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 Foreword Group decided to expand its membership to include experts who had been significant contributors to the UNCED process.

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.

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 xxix. 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

ASD	2030 Agenda for Sustainable Development
ASIL	American Society of International Law
ACP-EEC	Africa Caribbean Pacific – European Economic Community
ASEAN	Association of Southeast Asian Nations
BzU	Beiträge zur Umweltgestaltung,
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
ICESCR	International Covenant on Economic, Social and Cultural Rights
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
IPC	Integrated Pollution Control
IPE/SD	International Protection of the Environment/Conservation in Sustainable Development
IUCN	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
MEAs	Multilateral Environmental Agreements
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

SDGs	Sustainable Development Goals
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
UNDP	United Nations Development Programme
UNEA	United Nations Environment Assembly
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNFCC	United Nations Framework Convention for Climate Change
UNEP-WCMC	UNEP World Conservation Monitoring Centre
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
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

The 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 the resilience of the community of life and the well-being of humanity depends upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clean air;

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 stands at a decisive period in history, which calls for a global partnership to achieve sustainable development;

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

Gravely concerned about the increasing degradation of the global environment and deterioration and depletion of natural resources, owing to unsustainable consumption and production, rising population pressures, poverty, climate change, pollution, and armed conflict;

Recognizing that environmental policies and laws have been integrated into the Sustainable Development Goals in order to fulfil basic human needs, improve the quality of life, and ensure a more secure future for all;

Aware that respect for human rights and fundamental freedoms, which are universal, indivisible, interrelated, interdependent, and mutually reinforcing, is essential to the achievement of sustainable development;

Aware that the right to environment is recognized in the constitutions and fundamental laws of a majority of states in all regions;

Conscious that the right to development must be fulfilled so as to meet the needs of present and future generations in a just, equitable and sustainable 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, including Small Island Developing States, 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 to promote sustainable development and to ensure an economically, socially, environmentally and culturally sustainable future;

Deeply concerned that the majority of peoples of the world live in conditions of poverty or extreme poverty, with negative consequences for the environment, as well as food and nutrition security;

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, cultural and institutional dimensions at all levels;

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

Acknowledging the rights of indigenous people to their lands, territories, resources and spiritual heritage, and their contributions 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, the Johannesburg Declaration and Plan of Implementation of the World Summit on Sustainable Development, the Rio + 20 Declaration “The Future We Want” and the Sustainable Development Goals;

Affirming the rule of law and the need for good governance at all levels in order to implement, enforce and monitor compliance with environmental 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 sustainable 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, the 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.

ARTICLE 4

INTERDEPENDENT VALUES

Peace, development, environmental conservation, rule of law 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 taking due account of the needs of future generations.

ARTICLE 6

PREVENTION

Prevention of environmental harm shall have priority over environmental remediation. The costs of pollution prevention, control and reduction measures are to be borne, to the fullest extent possible, by the originator.

ARTICLE 7

PRECAUTION

Precautionary measures shall be taken to anticipate, prevent and monitor the potential risks of serious or irreversible environmental harm, even in the absence of scientific certainty.

ARTICLE 8

PROPORTIONALITY

No action is permissible where the harm to the environment is disproportionate to the benefits derived. Among reasonable alternatives for action, the alternative least harmful to the environment shall be preferred.

ARTICLE 9

RESILIENCE

The capacity of natural systems and human communities to withstand and recover from environmental disturbances and stresses is limited, and therefore resilience is to be promoted. When such disturbances and stresses occur, efforts shall be taken to sustain or restore the systems and communities as fully as possible.

ARTICLE 10

NON-REGRESSION

Substantive and procedural rules for environmental conservation shall be maintained without regression, and interpreted and applied in favour of ecological integrity, unless compelling reasons of public interest require otherwise. The necessity of any measures of regression shall be revisited and re-examined on a periodic basis in order to restore or enhance pre-existing levels of environmental conservation.

ARTICLE 11

RIGHT TO DEVELOPMENT

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

ARTICLE 12

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 13

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 14

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 sustainable use of renewable resources.

ARTICLE 15

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. States, in particular, shall collect and disseminate information related to 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 a right of effective access to administrative and judicial procedures, including (HRM) redress and remedies, to challenge acts or omissions by public authorities or public persons, 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 16

INDIGENOUS PEOPLES

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

ARTICLE 17

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 plans, programmes and policies;
 - 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, through their membership in international organizations, undertake to pursue within such organizations policies which are consistent with the provisions of this Covenant.

ARTICLE 18

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 19

EMERGENCIES AND DISASTERS

1. Parties shall, without delay and by the most expeditious means available, notify potentially affected States and competent international organizations of any industrial or other technological emergency or natural disaster 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 an emergency or disaster 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 or disaster.

3. Parties shall take all necessary measures to provide immediate relief for those displaced by emergencies or disasters in the state in which the displaced persons are at present living, regardless of the state of origin of the displaced persons.
4. States shall provide scientific, technical, logistical and other cooperation to Parties experiencing an emergency or disaster. Cooperation may include coordination of international actions and communications, making available response personnel, response equipment and supplies, scientific and technical expertise and humanitarian assistance.

Part IV. OBLIGATIONS RELATING TO NATURAL SYSTEMS AND RESOURCES

ARTICLE 20

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 or the environment.

ARTICLE 21

GLOBAL CLIMATE

Parties shall take all appropriate measures to protect the Earth's climate system and enhance the capacity of natural systems and human communities to cope with 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 adaption measures to enable climate-resilient development; and
- (c) Establish genuine and durable partnerships with those States, particularly Small Island Developing States, which in view of their unique and particular vulnerabilities face significant risks from climate change, including *inter alia* rising sea levels.

ARTICLE 22

AIR

Parties shall take all appropriate measures to protect human health and the environment by, reducing and preventing air pollution, including long-range transboundary air pollution. To this end, Parties shall, individually or jointly,

- (a) set emission limits for major sources according to best available technology;
- (b) set ambient quality standards which represent a high degree of safety;
- (c) set total emission ceilings for limiting and reducing the overall pollution load on the environment;

- (d) combat air pollution in heavily polluted areas by establishing and implementing local air quality programmes and plans.

ARTICLE 23

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 and loss, to combat desertification, to safeguard the processes of organic decomposition and to promote the continuing fertility of soils.

ARTICLE 24

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 waters such as in aquifers or watercourses such as in 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 25

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 of these systems as an essential basis for ecosystem conservation or human livelihoods and scientific research, including *inter alia*,

- (a) forests and mountains;
- (b) peatlands, freshwater wetlands and floodplains;
- (c) cave systems, drylands, deserts and arid zones;
- (d) marine and coastal ecosystems;
- (e) glaciers and polar regions.

ARTICLE 26

ECOSYSTEM APPROACH

Parties shall take all appropriate measures to implement their obligations according to relevant principles of the ecosystem approach by employing strategies for integrated management of land, water and living resources for environmental conservation and sustainable use.

ARTICLE 27

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 networks and complementary conservation management.

To this end, the Parties shall:

- a) integrate conservation and sustainable use of biological diversity and its components into their spatial planning utilizing ecosystem management;
 - b) establish a system of protected areas, with buffer zones and interconnected ecological corridors; and
 - c) prohibit the taking or destruction of endangered or threatened species, protect their habitats, and where necessary develop and apply recovery plans for such species.
2. Parties shall regulate or manage biological organisms and ecological systems 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 plants and animals below the level necessary to ensure a sustainable level of regeneration;
- c) safeguard and 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 28

CULTURAL AND NATURAL HERITAGE

- a) Parties shall take all appropriate measures to protect cultural and natural heritage including measures: 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; and

- d) to safeguard traditional knowledge, craftsmanship and skills for their inherent value, and to achieve environmental sustainability.

Part V. OBLIGATIONS RELATING TO PROCESSES AND ACTIVITIES

ARTICLE 29

PREVENTION OF HARM

Parties shall identify and evaluate substances, products, technologies, processes and categories of activities that have or are likely to have significant adverse effects on the environment or health. The measures shall provide for a system of survey, authorisation and registration, as well as procedures for management, substitution or prohibition, as appropriate to prevent harm and redress potential risks.

ARTICLE 30

POLLUTION

Parties shall take, individually or jointly, all appropriate measures to prevent, reduce, control, and eliminate, to the fullest extent possible, 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 31

NOISE

Parties shall take all appropriate measures to minimize ambient noise that is harmful to human health and well-being and disruptive to other living organisms. To this end, they shall assess populations affected by community, transportation and industrial noise, adopt health guidelines and legislation for noise-abatement and control, implement measures to reduce ambient noise in all environments, and ensure that ambient noise is taken into account in all environmental impact assessments and in spatial planning.

ARTICLE 32

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, recycled and recovered.
3. Waste which cannot be reused, recycled or recovered, shall be disposed of in an environmentally sound manner, to the fullest extent possible at source.

4. Parties shall provide for the identification, recovery, separate collection and safe-handling of products that have potential to become wastes hazardous to the environment or health.
5. 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 33

INTRODUCTION OF ALIEN SPECIES OR MODIFIED ORGANISMS

1. Parties shall prohibit the intentional introduction of alien species or modified organisms which may have adverse effects on other species or organisms, ecosystems or human livelihoods. 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 species, 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 introduced alien species or modified organisms when such species or 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 prevent the spread of zoonotic diseases, in order to prevent their transmission between species.

ARTICLE 34

FOOD AND FEED PRODUCTION

Parties shall ensure that food and feed production methods, including agriculture, animal husbandry and aquaculture do not cause pollution or significant environmental damage, and are carried on in accordance with an ecosystem approach. They shall comply with applicable international standards, such as health standards, biodiversity obligations and controls on persistent organic pollutants, with a view to ensuring environmental conservation and sustainable use of natural resources. To this end,

Parties shall

- (a) regulate food and feed production methods which are potentially associated with serious adverse effects on food and feed production and agricultural biodiversity, especially reduce the adverse effect of monocultures;
- (b) use the ecosystem approach in food and feed production;
- (c) ensure that agricultural and pasture land is primarily used for food and feed production;
- (d) take measures to protect and enhance agricultural crop diversity.

Part VI. OBLIGATIONS RELATING TO GLOBAL ISSUES

ARTICLE 35

ACTION TO ERADICATE POVERTY

Parties, individually and 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 and environmental rights;
- b) respect, ensure, promote and fulfil the rights of vulnerable and marginalized persons, in particular to food, water, housing, healthcare 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 access to potable water and sanitation;
- f) provide education, with a particular focus on, and with the participation of women and the girl child, 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 36

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, recycling and recovery of materials to the fullest extent possible;
- d) promote product designs that increase reuse, recycling and recovery and as far as possible to eliminate waste;
- e) facilitate the role and participation of consumer organizations in promoting more sustainable consumption patterns;

- f) encourage economic enterprises to adopt corporate social responsibility policies and 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 37

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) establish databases to inform policies with respect to population size and growth, population age structure, fertility, reproductive health and family planning, nutrition, health and mortality, spatial distribution, and internal and international migration within the context of demographic, social, economic and environmental change;
- c) cooperate to alleviate the stress on natural support systems caused by major population flows;
- d) cooperate as requested to provide a necessary infrastructure on a priority basis for areas with rapid population growth;
- e) cooperate towards achieving universal reproductive health, including improving accessibility;
- f) provide to their populations full information on the options concerning family planning; and
- g) provide for long-term resettlement of persons displaced by changing environmental conditions.

ARTICLE 38

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 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, harvesting, production, transport, marketing, and, where appropriate, ultimate disposal.
2. Parties shall 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 threaten or 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 39

TRANSNATIONAL ECONOMIC ACTIVITIES

1. Parties shall take measures to prevent significant environmental harm to other Parties and minimize the risk thereof from economic activities conducted within the territory or under their territory or under their jurisdiction or control.
2. The Parties shall require, from all economic entities of foreign origin located within their territory or otherwise 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 best available technology to prevent environmental harm.
3. In the case of activities of economic entities 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, as a minimum, the relevant standards of the Party of origin.

5. Parties shall cooperate with and encourage economic entities to develop and abide by guidelines or codes or conduct of corporate social responsibility.
6. Parties shall ensure access to justice for those harmed by economic activities of foreign origin.

ARTICLE 40

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 or assist, encourage, or induce others to use, the destruction or modification of the environment as a means of warfare or any other hostile activity.
2. The 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 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.
3. Parties shall take the necessary measures to protect natural and cultural sites and objects 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.
6. Parties shall take all necessary measures to provide relief for those displaced by armed conflict, including internally displaced persons, with due regard to environmental obligations.

Part VII. TRANSBOUNDARY ISSUES

ARTICLE 41

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 and, if necessary, negotiate, in good faith with those States at an early stage with a view to arriving at an equitable resolution of the situation;
- c) grant potentially affected persons in other States access to and due process in administrative and judicial proceedings relating to the proposed activity, without any discrimination, particularly, 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.

ARTICLE 42

PRIOR INFORMED CONSENT

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

ARTICLE 43

TRANSBOUNDARY NATURAL RESOURCES

Parties shall cooperate in the conservation, use, 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, 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 44

ACTION PLANS

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

ARTICLE 45

SPATIAL PLANNING

1. Parties shall establish and implement integrated spatial planning systems, including provisions for infrastructure and town and country planning, with a view to integrating conservation of the environment, including biological diversity and the rights of indigenous peoples and local communities, 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, protected 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 agricultural, grazing, forestry, or other use.

ARTICLE 46

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) reasonable alternatives including not conducting the proposed activity; and
 - c) measures to avert, minimize or offset the potential adverse effects.
3. Parties shall ensure the right of public awareness and participation. The procedures shall be open, transparent, effective and accessible, to concerned States, international organizations,

associations and individuals. Parties shall 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 47

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 48

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, the 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 49

CONTINGENCY AND EMERGENCY PLANNING

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

ARTICLE 50

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 in 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 and ecosystems.

ARTICLE 51

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 52

SHARING BENEFITS OF BIOTECHNOLOGY

1. Parties shall provide for the fair and equitable sharing of benefits arising out of the use of genetic resources, including through biotechnology with States providing access to such genetic resources on mutually agreed terms.
2. Parties shall fairly and equitably share the benefits arising from genetic resources located in areas beyond national jurisdiction.

ARTICLE 53

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 54

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 55

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 and partnerships for sustainable development.

ARTICLE 56

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 augment their aid programmes to reach the United Nations General Assembly target of 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 have the potential for significant adverse impact on the environment shall, in cooperation with the recipient State, ensure that an environmental impact assessment is conducted. The resources provided shall include those necessary for the recipient State to carry out such assessment.

Part IX. RESPONSIBILITY AND LIABILITY

ARTICLE 57

STATE RESPONSIBILITY

States Parties are responsible under international law for an internationally wrongful act in breach of an international obligation and the obligations under this Covenant.

ARTICLE 58

HARMFUL ACTIVITIES

States of origin 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, including during the development of the activity.

ARTICLE 59

LIABILITY

1. States Parties shall take the necessary measures to ensure that prompt and adequate compensation is available to victims of significant transboundary environmental damage caused by hazardous activities located within their territory or otherwise conducted 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) the obligation to provide compensation for personal damage and damage to property including compensation of economic loss;
- (c) the obligation to provide redress for damage to the environment by taking measures of mitigation of damage and restoration or reinstatement of the affected environment or covering the costs of such measures incurred by the victim, the competent authority, or a public trustee.
- (d) any conditions, limitations or exceptions to such liability shall be consistent with the principle of prompt and adequate redress to victims.

ARTICLE 60

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 61

INTERNATIONAL AND DOMESTIC REMEDIES

1. States Parties shall ensure the existence and availability of domestic judicial and administrative bodies to provide prompt, adequate and effective remedies and redress for claims of environmental damage or violations of environmental rights.
2. States Parties shall not impede recourse to available international procedures.

ARTICLE 62

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 63

OFFENCES

The 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 64

CIRCUMSTANCES PRECLUDING WRONGFULNESS

1. The wrongful character 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
 - (a) 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 or arising out of their own risk sphere, 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 or arising out of the risk sphere of that State Party.

ARTICLE 65

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 66

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 including the national rules regarding conflicts of laws in all matters of substance or procedure not specifically dealt with in these articles.

Part X. APPLICATION AND COMPLIANCE

ARTICLE 67

OTHER TREATIES

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

ARTICLE 68

STRICTER MEASURES

1. The provisions of this Covenant shall not affect the right of Parties individually or jointly to adopt and implement stricter measures for the protection of the environment 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 69

AREAS BEYOND NATIONAL JURISDICTION

In areas beyond 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 70

RELATIONS WITH NON-PARTIES

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

ARTICLE 71

REPORTING

Parties shall 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 72

COMPLIANCE AND DISPUTE AVOIDANCE

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 73

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, 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 74

REVIEW CONFERENCE

The Secretary-General of the United Nations shall convene every five years a conference of the Parties to the Covenant 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 75

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 the 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 the Parties to this Covenant who 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 76

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 77

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 78

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 79

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 80

RESERVATIONS

No reservations may be made to this Covenant.

ARTICLE 81

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 place 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 82

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 83

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 DEVELOPMENT

5th Edition¹

PREAMBLE

Article 76 (Signature) and 77 (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 77 (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 14(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 14(2) (States), 19(1) (Emergencies and Disasters) and Article 38(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 “State 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 recognises 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 anthropogenic global climate change. 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 the resilience of the community of life and the well-being of humanity depends upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clean air;

This statement has its origin in the World Charter for Nature³ and is supported by the 2030 Agenda for Sustainable Development, Transforming our World: The 2030 Agenda for Global Action (para. 7). It contains two ideas. First, human beings cannot be separated from nature

1 Editorial Notes: (1) each provision of the Draft Covenant is reproduced and then followed by the commentary on that provision; (2) several document names have been abbreviated in the Commentary – full titles appear in the Table of Abbreviations and Table of International Legal Instruments.

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 (1992). These instruments drew upon earlier expressions of similar ideas in the Stockholm Declaration (1972), and the Covenant on Economic, Social and Cultural Rights (1966).

whatever the degree of scientific and technological progress humans manage to achieve: there is a unity with and dependence on nature. Second, all 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 civilizations 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 stands at a decisive period 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 recognise 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, U.N. 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, 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).

Concerned that the stresses on 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.

Gravely concerned about the increasing degradation of the global environment and deterioration and depletion of natural resources, owing to unsustainable consumption and production, rising population pressures, poverty, climate change, 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, including the 2030 ASD⁸ Whether they affect the environment and natural resources directly or indirectly, they are addressed in substantive provisions of the Draft Covenant.

8 See e.g., Covenant on Economic, Social and Cultural Rights (1966); Covenant on Civil and Political Rights (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 (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). See also *Transforming Our World: The 2030 Agenda for Sustainable Development* (2015), para. 9.

Recognizing that environmental policies and laws have been integrated into the Sustainable Development Goals in order to fulfil basic human needs, improve the quality of life, and ensure a more secure future for all;

This clause expresses the understanding that neither environmental protection nor long-term economic development can be achieved independently of each other. Instead, as recognised in Principle 4 of the Rio Declaration, in Paragraph 6 of the Ministerial Declaration adopted at the World Trade Organization meeting in Doha (20 November 2001), in “Our Common Future” (Rio+20) and the seventeen Goals of the 2030 Agenda for Sustainable Development, the two fields are interdependent and mutually reinforcing. GA Res. 269/214 (2015) also recognizes that eradicating poverty, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development. Taken together, these give 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”.

Treaties also reflect this principle. The Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities to the Framework Convention on the Protection of the Marine Environment of the Caspian Sea (Moscow, Dec. 12, 2012) requires the States party to “ensure that environmental factors, including health aspects, are thoroughly taken into account in the development of relevant plans and programmes.”

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, which are universal, indivisible, interrelated, interdependent, and mutually reinforcing, is essential to the achievement of sustainable development;

The reference in this clause to sustainable development is based on the concept 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, the Vienna Declaration on Human Rights (1993), and the 2030 Agenda for Sustainable Development. The

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).

SDA in particular was drafted to encompass all human rights. It is intended to work to ensure that human rights and fundamental freedoms are enjoyed by all without discrimination on grounds of race, colour, sex, age, language, religion, culture, migratory status, political or other opinion, national or social origin, economic situation, birth, disability or other status. The Covenant also reflects the understanding that just as environmental protection and economic development are interdependent, both can be achieved only if fundamental 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 in resolutions of the Human Rights Council and the General Assembly, which reaffirm that peace, security, stability and respect for human rights and fundamental freedoms are essential for achieving sustainable development.

That human rights and fundamental freedoms are universal, indivisible, interrelated, interdependent, and mutually reinforcing has been recognized in the Teheran Declaration (1968) and the Vienna Declaration on Human Rights (1993) as well as in numerous resolutions of the UN Human Rights Council and the General Assembly. The UN Secretary-General in his synthesis report on the post-2030 Agenda for Sustainable Development emphasized that this agenda must be underpinned by rights, with people and the planet at the centre.¹³ The post 2030 Agenda for Sustainable Development calls ensuring that all human beings can fulfil their potential, by ending poverty in all its forms; ending hunger and malnutrition; promoting human dignity; combating inequalities in and between countries; achieving gender equality and empowering all women and girls; ensuring quality education, water and sanitation and a healthy life for all; and securing the participation of all people and groups, including children, in the realization of the Sustainable Development Agenda.

Aware that the right to environment is recognized in the constitutions and fundamental laws of a majority of states in all regions;

In recognition of the linkages between human rights and the environment, lawmakers in many countries have drafted constitutional and legislative provisions setting forth the right to an environment of a specified quality, such as healthy, safe, secure, clean, or ecologically sound. Some 130 constitutions in the world, including the overwhelming proportion of those amended or written since 1970, include a state obligation to protect the environment or a right to a safe, healthy, ecologically balanced or other high quality environment.¹⁴ About half the constitutions take the rights-based approach, and the other half proclaim state duties. Within Europe,¹⁵ the French

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 Ban Ki-Moon, *The road to dignity by 2030: ending poverty, transforming all lives and protecting the planet: Synthesis report of the Secretary-General on the post-2030 Agenda for Sustainable Development*, UN Doc. A/69/700 (4 Dec. 2014), para. 23, 34-36.

14 EARTHJUSTICE, ENVIRONMENTAL RIGHTS REPORT 2008: HUMAN RIGHTS AND THE ENVIRONMENT (2008) (appendix containing constitutional provisions concerning the environment from 119 countries), available at <http://www.earthjustice.org/news/press/007/earthjustice-presents-2007-environmental-rights-report-to-un.html>.

15 The Constitution of Belgium, where the right to “lead a worthy life of human dignity” includes “the right to protection of a sound environment”;¹⁵ Portugal where the Constitution asserts that “all have the right

Constitution was amended in 2005 and now includes a Charter of the Environment (“Charter”).¹⁶ The Charter affords all citizens of France the right to live in a “balanced environment, favorable to human health.”¹⁷

In federal states, component units often have the power to provide their citizens with rights additional to those contained in the federal Constitution. In the United States, state constitutions revised or amended from 1970 to the present have added environmental protection among their provisions.¹⁸ In fact, every state constitution drafted after 1959 explicitly addresses conservation of nature and environmental protection.¹⁹

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

The reference to the “right to development” derives from the Rio Declaration, the Johannesburg Declaration on Sustainable Development, the Sustainable Development Agenda and other international texts.²⁰ 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,

to a healthy ecologically balanced human environment and the duty to defend it”;¹⁵ and Spain where the Constitution states that “everyone has the right to enjoy an environment suitable for the development of the person as well as the duty to preserve it.”¹⁵ Further north, the Finnish Constitution, adopted in 2000, states that the “public authorities shall endeavor to guarantee for everyone the right to a healthy environment.”¹⁵ Likewise, the Norwegian Constitution, altered in 1992, contains a right to “an environment that is conducive to health.”¹⁵ In addition, a great number of Eastern European countries have, following the breakdown of the Soviet Union, altered or changed their constitutions to include a substantive right to the environment.¹⁵

16 Legifrance, Charter for the Environment, art. 1, available at <http://www.legifrance.gouv.fr/html/constitution/const03.htm>; see, e.g., David Marrani, *The Second Anniversary of the Constitutionalisation of the French Charter for the Environment: Constitutional and Environmental Implications*, 10 ENVTL. L. REV. 9 (2008); James R. May, *Constituting Fundamental Environmental Rights Worldwide*, 23 PACE ENVTL. L. REV. 113, 113–14 (2005–06).

17 Legifrance, Id.

18 See Ala. Const. art. VIII; Cal. Const. art. X, § 2; Fla. Const. art. II, § 7; Haw. Const. art. XI; Ill. Const. art. XI; La. Const. art. IX; Mass. Const. § 179; Mich. Const. art. IV, § 52; Mont. Const. art. IX, § 1; N.M. Const. art. XX, § 21; N.Y. Const. art. XIV; N.C. Const. art. XIV, § 5; Ohio Const. art. II, § 36; Pa. Const. art. I, § 27; R.I. Const. art. 1, § 17; Tex. Const. art. XVI, § 59; Utah Const. art. XVIII; Va. Const. art. XI, § 1. For discussions of these provisions, see A.E. Dick Howard, *State Constitutions and the Environment*, 58 Va. L. Rev. 193, 229 (1972); Roland M. Frye Jr., *Environmental Provisions in State Constitutions*, 5 Env'tl. L. Rep. 50028–29 (1975); Stewart G. Pollock, *State Constitutions, Land Use, and Public Resources: The Gift Outright*, 1984 Ann. Surv. Am. L. 13, 28–29; Robert A. McLaren, Comment, *Environmental Protection Based on State Constitutional Law: A Call for Reinterpretation*, 12 U. Haw. L. Rev. 123, 126–27 (1990); Carole L. Gallagher, *The Movement to Create an Environmental Bill of Rights: From Earth Day 1970 to the Present*, 9 Fordham Env'tl. L.J. 107 (1997). For a listing of all environmental provisions in state constitutions, see Bret Adams et al., *Environmental and Natural Resources Provisions in State Constitutions*, 22 J. Land Resources & Env'tl. L. 73 (2002). The authors take a broad reading of the topic, including all provisions that touch on natural resources. They come to a total of 207 state constitutional provisions in forty-six state constitutions.

19 For a listing of all environmental provisions in state constitutions, see Bret Adams et al., *Environmental and Natural Resources Provisions in State Constitutions*, 22 J. LAND RESOURCES & ENVTL. L. 73 (2002). The authors take a broad reading of the topic, including all provisions that touch on natural resources. They come to a total of 207 state constitutional provisions in 46 state constitutions.

20 Principle 3.

recall the prior clauses concerned with human rights and indicate those who hold the right to development. See also Articles 5 and 11 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 is increasingly recognized in international legal instruments and doctrine that refer to the ‘common interest of humanity’²¹ or ‘common concern of mankind’ to identify fundamental issues 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.²² 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. In most legal systems, equity has traditionally played its major part in determining the distribution of rights and responsibilities in conditions of scarcity and inequality. The use of the term “responsibility” includes a moral obligation that each person has towards others. Solidarity and co-operation have long been recognised as duties of States. The UN General Assembly has referred to solidarity as “a fundamental value” that demands distributive justice: a fair distribution of the costs and burdens of global challenges.²³ 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 present generations. Equity as a basic principle is emphasized in Article 5.

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

21 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), pmbl, para 2.

22 See, eg, Article 53, VCLT; Articles 136–137 UNCLOS.

23 G.A. Res. 56/151, para. 3(f) of 19 Dec. 2001, and 57/123, para. 4(f) of 18 Dec. 2002.

This clause is a restatement of the conclusions of UNCED contained in the Rio Declaration.²⁴ Developing countries have special needs relative to their individual situations which must be taken into account and given special priority. Developed countries, because of their greater capability and the greater proportion of environmental stress that they cause, 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)overly eradication, changing unsustainable patterns of production and consumption, and protecting and managing the natural resource base of economic and social development are overarching objectives of and essential requirements for sustainable development”. The 2030 Agenda for Sustainable Development is based on the principle of common but differentiated responsibilities (para. 10) and also recognizes that “[t]he most vulnerable countries and, in particular, African countries, least developed countries, landlocked developing countries and small island developing states deserve special attention, as do countries in situations of conflict” (para. 21).

Affirming the duty of all to respect and to prevent harm to the environment; and to promote sustainable development and to ensure an economically, socially, environmentally and culturally sustainable future;

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. The clause again refers to the three pillars of sustainable development: economic, social and environmental. Finally, the term “duty” expresses a legal obligation and not only a moral one.

Deeply concerned that the majority of peoples of the world live in conditions of poverty or extreme poverty, with negative consequences for the environment, as well as food and nutrition security;

This provision is based on recognition of the dire situation of those who live in extreme poverty, subsisting on less than \$1.25 a day.²⁵ Over 1.4 billion people – a quarter of the developing world – are living on less than this amount in the 20 poorest countries, where human development indicators declined significantly over the past decade.²⁶ Those living in such poverty suffer loss of life and health as a direct consequence of the environmental degradation that surrounds their communities, as well as an inability to enjoy the fundamental human rights and freedoms guaranteed to all. The lack of sanitation and other basic services, including heating and cooking fuel, exacerbates environmental degradation in situations of poverty. Principle 5 of the Rio Declaration, paragraph 2 of *The Future We Want* and *Transforming Our World: The 2030 Development Agenda* (2015) all recognize that poverty eradication is an indispensable requirement for sustainable development. GA Res. A/69/183, adopted 18 December 2014 ‘Human rights and extreme poverty’ recognized the links between extreme poverty, inability to exercise

24 Principle 6 of the Rio Declaration (1992).

25 “World Bank Finds That Adjustment Places More in Steep Poverty,” *New York Times*, Aug. 27, 2008, p. A7.

26 *Ibid.*

human rights, and environmental conditions, encouraging the international community “to strengthen its efforts to address challenges that are contributing to extreme poverty, including those derived from the ongoing impact of the financial and economic crisis, the food crisis and ongoing concerns over food security, as well as the increasing challenges posed by climate change and the loss of biodiversity in all parts of the world, especially in developing countries, by enhancing cooperation to help to build national capacities” (para. 16).

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, cultural and institutional dimensions at all levels;

Goal 1 of the 2030 Agenda for Sustainable Development is to end poverty in all its forms everywhere. This paragraph introduces the key elements that are contained in Article 35 (Action to Eradicate Poverty) and made operational in Article 35 (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.²⁷ 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.²⁸ 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.

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

The empowerment and emancipation of women are essential to achieving sustainable development, as recognised 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

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

28 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).

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 2003 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.²⁹ Goal 5 of the 2030 Agenda for Sustainable Development is to achieve gender equality and empower all women and girls, ending all forms of discrimination, violence, and harmful practices, and adopting and strengthening sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels.

Acknowledging the rights of indigenous people to their lands, territories, resources and spiritual heritage, and their contributions to the respect for and conservation of nature and natural resources;

This clause has two parts derived from international instruments and jurisprudence. First, it recognizes that international law affirms the rights of indigenous peoples to their ancestral lands, resources and culture, as seen in ILO Convention NO. 169, the 2007 United Nations Declaration on the Rights of Indigenous Peoples, and the judgments of the Inter-American Court of Human

29 Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, adopted by the African Union on 11 July 2003, Art. 18 "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.

Rights³⁰ and the African Commission on Human and Peoples Rights.³¹ Second, 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.³² 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 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. Article 12 of the 2010 Nagoya Protocol on Access to Genetic Resources and their Fair and Equitable Sharing of Benefits reinforces the guarantees for holders of traditional knowledge.

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

30 See, e.g. I/A Court H.R., Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua. Merits, Reparations and Costs. Judgment of January 31, 2001. Series C No. 79; I/A Court H.R., Case of the Yakye Axa Indigenous Community v. Paraguay. Merits, Reparations and Costs. Judgment of June 17, 2005; I/A Court H.R., Case of the Sawhoyamaya Indigenous Community v. Paraguay. Merits, Reparations and Costs. Judgment of March 29, 2006. Series C No. 146. I/A Court H.R., Case of the Xákmok Kásek Indigenous Community v. Paraguay. Merits, Reparations and Costs. Judgment of August 24, 2010. Series C No. 214. The Inter-American Court considers that indigenous and tribal peoples' rights over natural resources require attention "regarding the inextricable relationship between both land and the natural resources that lie therein, as well as between the territory (understood as encompassing both land and natural resources) and the economic, social, and cultural survival of indigenous and tribal peoples, and thus, of their members." [I/A Court H.R., Case of the Saramaka People v. Suriname. Preliminary Objections, Merits, Reparations and Costs. Judgment of November 28, 2007. Series C No. 172, par. 120] Indeed, indigenous and tribal peoples' right to property, as protected by the Inter-American human rights instruments, encompasses the close bond that they have with the natural resources linked to their culture which are present in their territories, as well as the incorporeal elements that are derived from such resources [IACHR, Follow-up Report: Access to Justice and Social Inclusion: The Road towards Strengthening Democracy in Bolivia. Doc. OEA/Ser/L/V/II.135, Doc. 40, August 7, 2009, par. 156. I/A Court H.R., Case of the Mayagna (Sumo) Awas Tingni Community v. Nicaragua. Merits, Reparations and Costs. Judgment of January 31, 2001. Series C No. 79, par. 148. I/A Court H.R., Case of the Yakye Axa Indigenous Community v. Paraguay. Merits, Reparations and Costs. Judgment of June 17, 2005. Series C No. 125, par. 137. I/A Court H.R., Case of the Sawhoyamaya Indigenous Community v. Paraguay. Merits, Reparations and Costs. Judgment of March 29, 2006. Series C No. 146, par. 118].

31 See: Centre for Minority Rights Dev. v. Kenya, Comm. No. 276/2003 (Afr. Comm'n on Hum. & Peoples' Rts. Feb. 4, 2010).

32 See, e.g. United Nations Declaration on the Rights of Indigenous Peoples, adopted by General Assembly Resolution 61/295 on 13 September 2007 (preamble); ILO Convention No. 169 Concerning Indigenous and Tribal Peoples in Independent Countries.

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 the Johannesburg Declaration and Plan of Implementation of the World Summit on Sustainable Development, the Rio+20 Declaration “The Future We Want” and the Sustainable Development Goals and Agenda;

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 and the implementing Agenda 21, reaffirmed at the WSSD and in The Future We Want, adopted at Rio+20. These prior texts and the Millennium Declaration of the United Nations General Assembly and in the Sustainable Development Goals and Agenda provide the basis for the provisions of the Draft Covenant.

Affirming the rule of law and the need for good governance at all levels in order to implement, enforce and monitor compliance with environmental obligations;

The rule of law is an indispensable element of any governance system and modern society.³³ The importance of the rule of law in the context of sustainable development was affirmed in the 2030 Agenda for Sustainable Development, which envisages “a world of universal respect for human rights and human dignity, the rule of law, justice and equality; of respect for race, ethnicity and cultural values; and of equal opportunity permitting the full realization of human potential while promoting shared prosperity.” Goal 16.2 specifically calls for promotion of the rule of law at the national and international levels and ensuring equal access to justice for all.

The importance of the rule of law in general - for fair, stable and predictable legal frameworks that generate inclusive, sustainable and equitable development and maintain peace and security - has been repeatedly recognized by the UN.³⁴ The UN General Assembly has underlined the importance of fair, stable and predictable legal frameworks for generating inclusive, sustainable and equitable development and maintaining peace and security.³⁵ In 2012 Decision 27/9: Advancing justice, governance and law for environmental sustainability, adopted during the first universal session of UNEP Governing Council, recognized the importance of rule of law in the field of the environment and sustainable development. It is also the first internationally negotiated document to establish the term “environmental rule of law”.

The predicates for the rule of law include: fair, clear and implementable environmental laws; public participation, access to justice, and information (Rio Principle 10); accountability and integrity of institutions and decision-makers, including environmental auditing and enforcement; clear and coordinated mandates and roles, across and within institutions. (5) accessible, fair, impartial, timely and responsive dispute resolution mechanisms, including developing expertise and innovative procedures and remedies; (6) mutually reinforcing relationship between human rights and environment; (7) specific criteria for the interpretation of environmental law. In 2014 the UNEP Environmental Assembly again called for ensuring “that sustainable development is based on the rule of law, and affords all people equality in terms of environmental protection.”

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 and from its 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 eight major characteristics. It is

33 See G.A. res. A/69/123 “The rule of law at the national and international levels“, 14 December 2014 (“*Reaffirming* that human rights, the rule of law and democracy are interlinked and mutually reinforcing and that they belong to the universal and indivisible core values and principles of the United Nations.”)

34 See for example A/RES/67/1. “For the United Nations, the rule of law refers to a principle of governance in which all persons, institutions and entities, public and private, including the State itself, are accountable to laws that are publicly promulgated, equally enforced and independently adjudicated, and which are consistent with international human rights norms and standards. It requires, as well, measures to ensure adherence to the principles of supremacy of law, equality before the law, accountability to the law, fairness in the application of the law, separation of powers, participation in decision-making, legal certainty, avoidance of arbitrariness and procedural and legal transparency.” See Report of the Secretary-General on the Rule of Law and Transitional Justice in Conflict and Post-Conflict Societies (S/2004/616).

35 A/RES/67/1.

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.³⁶ The UN Rule of Law coordination and Resource Group, operating under the authority and direction of the Secretary-General, together with the Environmental Management Group, coordinates activities on this issue.

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 sustainable 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:

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 and reaffirmed two decades later in “The Future We Want”. 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 “achieving”. 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.³⁷

36 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>.

37 Antigua, 18 February 2002.

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 conservation and 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)).

Part II. FUNDAMENTAL PRINCIPLES

In their actions to achieve the objective of this Covenant and to implement its provisions, the 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 Treaty of European Union, Title XVI, sets out the principles meant to guide policy on the environment, principles that shape legislation in the EU. Article 174(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.³⁸ 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,

38 Preamble.

recreational and aesthetic values of biological diversity and its components”.³⁹ 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.

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.⁴⁰ 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 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 the international community.

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

39 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 Draft IUCN Covenant on Environment and Development declares as a fundamental principle (Art. 2) that “[n]ature 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.”

40 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.

freedom of use, including access to resources, so long as there is due regard for the interests of other States.⁴¹ 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 participate in the exploitation.⁴² 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.⁴³ 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”.⁴⁴ The concept can be found in many multilateral environmental treaties and the term itself appears in texts concerning global climate change⁴⁵ and the conservation of biological diversity.⁴⁶ The 1979 Bonn Convention on the Conservation of Migratory Species of Wild Animals recognises 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 recognises 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

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

42 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”.

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

44 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).

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

46 Preamble to the Convention on Biological Diversity (1992).

are directly concerned. The Draft Covenant is the first international treaty to declare the global environment as such a “common concern.”⁴⁷

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”.⁴⁸ The temporal element recognises 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.⁴⁹ The same approach can be seen in Article 14(3) (States) and Article 15(4) (Physical and Legal Persons).

ARTICLE 4

INTERDEPENDENT VALUES

Peace, development, environmental conservation, rule of law 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, recognising that all of the subjects mentioned form an indivisible whole. The 2030 Agenda for Sustainable Development recognizes that “eradicating poverty and inequality, preserving the planet and creating sustained and inclusive economic growth are linked to each other and are interdependent.” The Agenda adds: “Sustainable development cannot be realized without peace; and peace will be at risk without sustainable

47 See also the Langkawi Declaration on the Environment (1990), where the Heads of Government of the 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”.

48 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, recognising the special requirements of developing States.

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

development. The new Agenda recognizes the need to build peaceful, just and inclusive societies that provide access to justice and that are based on respect for human rights (including the right to development), on effective rule of law and on effective and accountable institutions.” The Sustainable Development Goals (SDGs) and targets are integrated and indivisible, global in nature and universally applicable, taking into account different national realities, capacities and levels of development and respecting national policies and priorities.

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.⁵⁰ 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.⁵¹ It also declared that democracy, development and respect for human rights and fundamental freedoms are interdependent and mutually reinforcing.⁵²

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”.⁵³ It also asserts that peace, development and environmental protection are interdependent and indivisible.⁵⁴ The Preamble to the Aarhus Convention (1998) underlines the link, recognising 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.

The nineteenth session of the UN Human Rights Council adopted resolution 19/10 on human rights and the environment, which provided a mandate for an independent Expert on Human Rights and the Environment.⁵⁵ The independent expert has prepared three reports: a preliminary report placing his mandate in a historical context,⁵⁶ a report mapping human rights obligations relating to the environment,⁵⁷ and a compilation of good practices of Governments, international organizations, civil society organizations, corporations and others in the use of human rights obligations relating to

50 Proclamation of Teheran (1968). The text also recognises 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.

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

52 Paragraph 8.

53 Principle 1.

54 Principle 25 of the Rio Declaration (1992).

55 A/HRC/RES/19/10.

56 Report of the Independent Expert on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, John H. Knox: Preliminary report A/HRC/22/43, 24 December 2012.

57 A/HRC/25/53, 30 December 2013.

the environment.⁵⁸ The mandate renewed in March 2015 by the Human Rights Council at its twenty-eight session for another three years.⁵⁹

Development and environmental protection depend upon respect for human rights, in particular rights of information, political participation, and due process (see Article 15 (Physical and Legal Persons), Article 53 (Information and Knowledge), and Article 54 (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,⁶⁰ are jeopardised when basic needs, such as sufficient food and water, cannot be provided.⁶¹ 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 recognised human rights.⁶²

Finally, armed conflicts are inherently destructive of the environment and of human rights,⁶³ and thus hamper or even preclude development. To achieve the objective of the Draft Covenant, the Parties must recognise 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 taking due account of 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.⁶⁴ Intergenerational equity holds that each generation owes

58 A/HRC/28/61, 3 February 2015.

59 See A/HRC/28/L.19.

60 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”.

61 The Vienna Declaration recognises 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).

62 Paragraph 10 of the Vienna Declaration.

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

64 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

a duty to future ones to avoid impairing their abilities to fulfil their basic needs.⁶⁵ 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.⁶⁶ 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 11 (Right to Development) and Article 12 (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 intergenerational 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.⁶⁷

Numerous international instruments affirm this basic principle.⁶⁸ Indeed, the Whaling Convention (1946) reveals that the concept has early antecedents.⁶⁹ Some national constitutions⁷⁰

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>.

65 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".

66 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.

67 See Principles 1 - 6.

68 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; 1997 United Nations Convention on the Law of the Non-Navigable Uses of International Watercourses, and the 2012 Protocols to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea. 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. 69/220, Dec. 19, 2014, UN Doc. A/Res/69/220 of Feb. 3, 2015.

69 See Preamble.

70 See e.g., the Constitutions of Brazil (Article 23), India (Part IV, Article 48-A and Part IVA, Article 51A),

also contain direct references to intergenerational equity or it is implied from provisions guaranteeing a right to a safe and healthy environment.⁷¹

ARTICLE 6

PREVENTION

Prevention of environmental harm shall have priority over environmental remediation. The costs of pollution prevention, control and reduction measures are to be borne, to the fullest extent possible, 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.⁷² 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.⁷³ 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.⁷⁴ Of course, in certain circumstances, the principle of prevention will require the State to prohibit activities that could cause serious harm to the environment.⁷⁵ While this principle

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

71 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.

72 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 24 and 32. 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.

73 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”.

74 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, 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).

75 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

has been reiterated in many international instruments,⁷⁶ the more common application has been to create minimum standards⁷⁷ or require employment of the “best available technology”.⁷⁸ 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).

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 Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities to the Framework Convention on

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 50 of the Draft Covenant.

76 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).

77 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).

78 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).

the Protection of the Marine Environment of the Caspian Sea (Moscow, 12 December 2012) more broadly defines “best available techniques” as “the latest state of development (state of the art) of processes, facilities or methods of operation, which indicate the practical suitability of a particular measure for limiting emissions and waste. ‘Techniques’ include both the technology used and the way in which the installation is designed, built, maintained, operated and dismantled” (Article 2 (c)).

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. The Caspian Sea Protocol is similar (Article 2(d), but also includes in Annex V Guidelines on best environmental techniques and best environmental practice. 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.⁷⁹

To aid States in determining what the best available technology, techniques or practices are, 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 Pollutants⁸⁰ (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.

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 46 (Environmental Impact Assessment)) are widely used by States to identify potential threats to the environment so that preventive action can be taken.⁸¹ The principle of prevention also is given effect through licensing and other regulation of

79 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).

80 May 22, 2001.

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

human activities, including the imposition of penalties in the event of breach of the duty to prevent harm (see Article 63 (Offenses)).⁸²

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”.⁸³ 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 14(1) (States))⁸⁴ and is the basis of most national environmental legislation (see Article 47(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.⁸⁵ On the global level, the 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, the 2001 Stockholm Convention on Persistent Organic Pollutants, and the 2012 Protocol on Pollution from Land-based Sources to the Caspian Sea Framework Convention (art. 4(2)(b)).

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.

82 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).

83 See also *Lac Lanoux* arbitration.

84 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”.

85 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).

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.⁸⁶

ARTICLE 7

PRECAUTION

Precautionary measures shall be taken to anticipate, prevent and monitor the potential risks of serious or irreversible environmental harm, even in the absence of scientific certainty.

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.⁸⁷ There is, as such, 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.”⁸⁸

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.⁸⁹ The Cartagena Biosafety Protocol (2000) requires that risk be assessed prior to the first

86 In cases of transboundary harm, see *Trail Smelter* Arbitration.

87 E.g., *Trail Smelter* Arbitration.

88 Paragraph 7 (15 May 1990).

89 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

intentional transboundary movement of a living modified organism 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.⁹⁰ In addition, the precautionary principle is an unexpressed rationale underlying other instruments.⁹¹ 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 15(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.

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)).

90 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); Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities to the Framework Convention on the Protection of the Marine Environment of the Caspian Sea (2012).

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

These provisions are broader than Rio Principle 15 because they lack reference to “serious or irreversible damage” or to cost-effectiveness.

Jurisprudence also supports the legal obligation of precaution. The South African Constitutional Court in *Fuel Retailers Association of Southern Africa v Director-General Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province, and Others*⁹² called for application of precaution, while the European Court of Human Rights in the 27 January 2009 in the case of *Tatar v. Romania* said that the precautionary principle has moved, on the European level, from being a philosophical concept to being a juridical norm with content to be applied. This means the government must take action to adopt reasonable and adequate measures capable of respecting the rights of individuals against serious risks to their health and well-being, even where scientific certainty is lacking.

ARTICLE 8

PROPORTIONALITY

No action is permissible where the harm to the environment is disproportionate to the benefits derived. Among reasonable alternatives for action, the alternative least harmful to the environment shall be preferred.

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.⁹³

ARTICLE 9

RESILIENCE

The capacity of natural systems and human communities to withstand and recover from environmental disturbances and stresses is limited, and therefore resilience is to be promoted. When such disturbances and stresses occur, efforts shall be taken to sustain or restore the systems and communities 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

92 Case no CCT 67/06; ILDC 783 (ZA 2007). The case arose out of a decision by a provincial Department of Agriculture, Conservation and Environment to grant private parties permission to construct a filling station.

93 Art. 3(2) to Annex I of the Madrid Protocol on Environmental Protection of the Antarctic (Oct. 4, 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.

are increasing the likelihood of nonlinear events. 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.⁹⁴

ARTICLE 10

NON-REGRESSION

Substantive and procedural rules for environmental conservation shall be maintained without regression, and interpreted and applied in favour of ecological integrity, unless compelling reasons of public interest require otherwise. The necessity of any measures of regression shall be revisited and re-examined on a periodic basis in order to restore or enhance pre-existing levels of environmental conservation.

The concept of sustainable development means that the rights to life and health of future generations must not be ignored and measures that would be detrimental to them must be avoided. Thwarting or repealing rules protecting the environment would result in imposing a more degraded environment on future generations. This consideration argues in favour of the principle of non-regression, since it prohibits subjecting future generations to the consequences of reduced environmental protection.

Human rights law prohibits regression. In its General Comment 3 of December 14 1990, the UN Committee for Economic Social and Cultural Rights (CESCR) condemns “any deliberately retrogressive measures”⁹⁵ The idea that once a human right is recognised it cannot be restrained, destroyed or repealed is shared by all major international instruments on human rights.⁹⁶

Universal and regional international environmental conventions all aim at “improving the environment”. The 1992 Rio Declaration on Environment and Development similarly involves an undertaking to “conserve, protect and restore the health and integrity of the Earth’s ecosystem” (Principle 7). A number of conventions state expressly that it is prohibited to reduce the level of environmental protection.⁹⁷ Others echo the language of the Rio Declaration in calling for States parties to “protect, preserve, and restore” the environment.⁹⁸

Regression can occur when states denounce treaties in order to escape environmental obligations⁹⁹ or enact legislation that rolls back environmental conservation and protection

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

95 UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment No.3: The Nature of States Parties Obligations, Art.2, Para.1 of the Covenant, 14 December 1990, E/1991/23, para. 9.

96 Cf. Universal Declaration of Human Rights (1948), Art. 30; European Convention on Human Rights (1950), Arts. 17 and 53; Art. 5 of the two 1966 Covenants.

97 E.g. North American Agreement on Environmental Cooperation, 1994.

98 The Protocol for the Conservation of Biological Diversity to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Ashgabat, 30 May 2014), Articles 2, 5.

99 Canada decided to denounce the Kyoto Protocol during the Conference of the Parties to the Climate Change Convention in Durban in December 2011.

measures. Legal support for a principle of non-regression is found in some national constitutions and law. Jurisprudence supports it as well. “Non-regression” has been the subject of proposals and discussion in the European Parliament,¹⁰⁰ in meetings of the UN and in Rio, where it was said: “it is critical that we do not backtrack from our commitment to the earth summit.” The reaffirmation to implement in full the Rio 1992 commitments reinforces the idea of non-regression and contributes to the formation of a judicial obligation.

Clearly, the principle of non-regression allows for exceptions, so long as they do not contravene fundamental environmental policy objectives. For instance, under CITES on the international trade in endangered species of wild flora and fauna, species that are no longer endangered could be removed from the list without a regression in the level of protection. The ban on a particular pollutant could be lifted when it is demonstrated that it no longer poses a health hazard. Non-regression thus does not prohibit repealing or amending existing texts. On the contrary, with the scientific progress that will result from the implementation of the precautionary principle, either it will be strengthened to deal with new threats to health and nature, or it will be eased if a source of pollution that required protection is demonstrated to be innocuous. The main thing is that the principle contributes to environmental and health protection, and does not allow pollution to worsen or increased loss of biodiversity.

ARTICLE 11

Right to Development

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

Article 11 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 recognised 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.¹⁰¹

The direct precedents for Article 11 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.¹⁰² The 2030 Agenda for Sustainable Development also reaffirms the rights to development, citing the Declaration on the Right to Development (para. 10). 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).

The reference to “humanity” in Article 11 is based on recognition that human beings are the central subjects of development.¹⁰³ As such, this Fundamental Principle applies not only in

100 Resolution 29 September 2011, par. 97.

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

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

103 See, Vienna Declaration (1993) and the UN Declaration on the Right to Development (1986), which states that

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 38(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 12

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 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 survival and because, even if the will to conserve exists, capacity to do so is lacking.¹⁰⁴ This principle thus affirms the fundamental link between environmental protection and economic development.¹⁰⁵ It also emphasises that minimum economic levels cannot be achieved globally without efforts by the entire international community.

Several international instruments recognise this overriding 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.¹⁰⁶ As noted in Agenda 21, the eradication of poverty is at the same time a country or regionally specific phenomenon as well as a shared responsibility of all States.¹⁰⁷ Hence it is the idea of global partnership, which emphasises international solidarity and unity of interest.¹⁰⁸ 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, reaffirmed in the 2030 Agenda for Sustainable Development. The General Assembly declared 1997-

"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.

104 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."

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

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

107 Paragraph 3.1.

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

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 recognised 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 2030 Agenda for Sustainable Development places poverty eradication as the first goal, to be achieved by 2030.

In reaffirming the commitment to implementing Agenda 21, the Programme for the Further Implementation of Agenda 21, the Johannesburg Plan of Implementation, including the time-bound goals and targets, and the other internationally agreed development goals, including the Millennium Development Goals, and reaffirming also other internationally agreed goals in the economic, social and environmental fields since 1992, as well as the outcome document of the United Nations Conference on Sustainable Development, the General Assembly has recognized that that eradicating poverty is the greatest global challenge facing the world today and an indispensable requirement for sustainable development, in particular for developing countries, and that although each country has the primary responsibility for its own sustainable development and poverty eradication and that the role of national policies and development strategies cannot be overemphasized, concerted and concrete measures are required at all levels to enable developing countries to achieve their sustainable development goals related to the internationally agreed poverty-related targets and goals, including those contained in Agenda 21, the relevant outcomes of United Nations conferences and the United Nations Millennium Declaration.¹⁰⁹

The 2030 Agenda for Sustainable Development envisages a Global Partnership for Sustainable Development which will embrace all countries and stakeholders. It is intended to mobilize the means required for implementation of the Agenda, acting in a spirit of strengthened global solidarity and supporting, in particular, the needs of the poorest and most vulnerable. The global partnership envisaged involves working towards an equitable international economic order (Article 38(1) (Trade and Environment)) and appropriate development assistance to developing countries (see Article 56(2) (International Financial Resources)). Other elements of this partnership are technical cooperation (see Article 51 (Development and Transfer of Technology)), information exchange (Article 53 (Information and Knowledge)) and appropriate institution building and strengthening.¹¹⁰

ARTICLE 13

COMMON BUT DIFFERENTIATED RESPONSIBILITIES

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

¹⁰⁹ GA resolutions 55/199 of 20 December 2000, 56/226 of 24 December 2001, 57/253 and 57/270 A of 20 December 2002, 57/270 B of 23 June 2003, 64/236 of 24 December 2009, 65/152 of 20 December 2010, 66/197 of 22 December 2011, 66/288 of 27 July 2012, 67/203 of 21 December 2012, 68/210 of 20 December 2013, 68/309 of 10 September 2014, 68/310 of 15 September 2014, 69/108 of 8 December 2014, and A/Res. 69/214, 19 Dec. 2014 on Implementation of Agenda 21, the Programme for the Further Implementation of Agenda 21 and the outcomes of the World Summit on Sustainable Development and of the United Nations Conference on Sustainable Development.

¹¹⁰ See Paragraph 3.10 of Agenda 21 (1992).

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.

Differentiated responsibilities stem from two factors: the different contributions States have made to global environmental degradation, on the one hand,¹¹¹ and the technologies and financial resources they command, on the other hand.¹¹² 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.¹¹³

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.¹¹⁴ 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). The 2030 Agenda for Sustainable Development reaffirms all the principles of the Rio Declaration on Environment and Development, including, inter alia, the principle of common but differentiated responsibilities (para. 10).

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

112 See Convention on Biological Diversity, art. 6; Desertification Convention, arts. 4-6.

113 See Montreal Protocol, Art. 5(1).

114 See Montreal Protocol (1987), Preamble.

Part III. GENERAL OBLIGATIONS

ARTICLE 14

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 sustainable use of renewable resources.

Article 14 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 resources¹¹⁵ is to be given effect in the broad framework of international law,¹¹⁶ which includes obligations of good-neighbourliness,¹¹⁷ 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.¹¹⁸ The development of international environmental law is indicative

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

116 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).

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

118 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

of the willingness of States to support such constraints with a view to sustainable development. Environmental law, both national and international, also falls within this broader legal structure. All recent developments in international environmental law recognise that the global environment is an integrated whole.¹¹⁹ 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 Declaration¹²⁰ and Principle 2 of the Rio Declaration, and is declaratory of customary international law.¹²¹ 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.¹²² 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 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.¹²³ 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

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).

119 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.

120 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.

121 Cf. *Trail Smelter* case. Widespread acceptance of the norm led the International Court of Justice to recognise 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 23 and 33.

122 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.

123 See e.g., Intervention Convention (1969) (expanded to cover other 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).

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 19 (Emergencies and Disasters) 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 15 (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.¹²⁴ The paragraph should also be read in conjunction with Article 36 (Consumption and Production Patterns) of the Draft Covenant.

ARTICLE 15

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. States, in particular, shall collect and disseminate information related to 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**

¹²⁴ See e.g., UNCLOS (1982), Convention on Biological Diversity (1992), LRTAP Convention (1979). International Tropical Timber Agreement (1994) (calling for sustainable utilization and conservation of timber producing forests and genetic resources); 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).

activities, measures, plans, programmes and policies that may have a significant effect on the environment.

5. Parties shall ensure that all persons have a right of effective access to administrative and judicial procedures, including redress and remedies, to challenge acts or omissions by public authorities or public persons, 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 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 14 (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.¹²⁵ The UN General Assembly and Human Rights Council have explicitly affirmed the right of each person to a healthy environment.¹²⁶

Paragraph 1 affirms everyone's right to an ecologically-sound environment and level of development.¹²⁷ The Stockholm Declaration affirmed the link between two fundamental objectives

125 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.

126 See, e.g., General Assembly resolutions 60/251 of 15 March 2006 and 65/281 of 17 June 2011, and Human Rights Council resolution 16/21 of 25 March 2011.

127 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, 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), Draft

of the present world: respect for human rights and protection of the environment.¹²⁸ The phrase “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 16 (Indigenous Peoples).¹²⁹

ECE Charter on Rights and Obligations, 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 9 (Eradication of Poverty) of the Draft Covenant.

- 128 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; Macaedonia - Chapter II, Part 2, Article 43; Maldives - Chapter II, Article 23; Mali - Title I, Article 15, Mexico - 1st Title, Chapter I, Article 4; Mongolia - Chapter 2, Article 16; Montenegro - Part 2, Section 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.

- 129 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)).

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 ICESCR.¹³⁰

Paragraph 2 reiterates individual responsibility for the protection of the environment.¹³¹ Most human rights instruments contain limitation clauses; some articulate express duties,¹³² but human rights are not to be considered as conditional or dependent upon fulfilment of duties in a reciprocal manner.¹³³ Rather, States could apply this provision on human duties to society in the form of civil or criminal responsibility, both nationally¹³⁴ and internationally,¹³⁵ 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.¹³⁶ The Aarhus Convention on Information, Participation and Redress explicitly recognises 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 national¹³⁷ and international law (see also Article 53 (Information and Knowledge) and Article 54 (Education, Training and Public Awareness)). The language of Paragraph 3 conforms to the requirements of international human rights texts and treaties on environmental protection.¹³⁸ The provision specifies that the right to information does not

130 See, e.g. ICESCR, 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.

131 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.

132 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).

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

134 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).

135 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.

136 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).

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

138 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

require that the requesting person prove an interest. This finds support in international and national law.¹³⁹ 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.¹⁴⁰ 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.¹⁴¹

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 36 (Consumption and Production Patterns), Article 41 (Transboundary Environmental Effects), and Article 46 (Environmental Impact Assessment)),¹⁴² and, more generally, to be a necessary component of a democratic society.¹⁴³ 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 countries should take place

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).

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

140 See, Article 5 Aarhus Convention (1998).

141 See, e.g., *Bladet Tromsø and Stensaas v. Norway*, 1999-III 29 EHRR 125; *Steel and Morris v. UK*, 2005-II; 41 EHRR 403.

142 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) recognises 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).

143 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).

where implementing this provision might cause undue administrative and financial difficulties.¹⁴⁴

Paragraph 5 expresses the right to effective access to judicial and administrative proceedings, which is a natural complement of the right to environment and well settled in international human rights and environmental law.¹⁴⁵ It includes international norms on non-discrimination,¹⁴⁶ and is intended to apply both domestically and internationally. The provision does not address or impact the issue of sovereign and diplomatic immunities, which may limit access to justice in respect to claims against States and State agencies, diplomats, and intergovernmental organizations. With regard to redress and remedy for environmental harm, this provision should be read in conjunction with Article 14(2) (States) and Article 59, 60 (Recourse Under Domestic Law and Non-Discrimination), whereas the other procedures contemplated here include those in connection with Article 14(3), Article 41(c) (Transboundary Environmental Effects) and Article 46(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 development¹⁴⁷ and is particularly important in relation to the use of natural resources, as has been recognised in international law.¹⁴⁸ The following article further reflects the existing law on the land and resources rights of indigenous peoples.

ARTICLE 16

INDIGENOUS PEOPLES

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

As noted in the commentary to the preambular paragraph on indigenous peoples, special measures for securing indigenous human rights have been recognized and applied by numerous

144 See also Articles 54(2) (Education, Training and Public Awareness) and 46(1)(b).

145 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).

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

147 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”.

148 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).

international and national bodies,¹⁴⁹ including the Inter-American Court of Human Rights, the International Labour Organisation,¹⁵⁰ the United Nations' Human Rights Committee,¹⁵¹ the United Nations' Committee to Eradicate All Forms of Racial Discrimination,¹⁵² and the domestic legal systems of states.¹⁵³ On September 13, 2007, the United Nations adopted the UN Declaration on the Rights of Indigenous Peoples, now accepted by all member states.

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 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."¹⁵⁴ 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."¹⁵⁵

149 *Id.* para. 97.

150 International Labour Organisation Convention (No. 169) Concerning Indigenous and Tribal Peoples in Independent Countries, June 17, 1989, 28 I.L.M. 1348 (entered into force Sept. 5, 1991), available at <http://www.unhchr.ch/html/menu3/b/62.htm> [hereinafter ILO Convention (No. 169)].

151 See, e.g., U.N. Human Rights Council, *International Covenant on Civil and Political Rights General Comment No. 23*, art. 27, para. 7, U.N. Doc. HRI/GEN/1/Rev.1 (1994).

152 See e.g., U.N. Comm. on the Elimination of Racial Discrimination, *General Recommendation XXIII Concerning Indigenous Peoples*, UN Doc. CERC/C/51/Misc.13/Rev.4 (1997).

153 For a compilation of domestic legislation governing the rights of indigenous peoples in numerous OAS member states, see Inter-Am. Comm'n on Human Rights, *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).

154 *Maya Indigenous Communities of the Toledo District v. Belize*, Case 12.053, Inter-Am. C.H.R., Report No. 40/04, para. 123 (2004); see also *Mary and Carrie Dann v. United States*, Case 11.140, Inter-Am. C.H.R., Report No. 75/02, OEA/Ser.L/V/II.117, doc. 1 rev. 1, para. 127 (2002) para. 127-31.

155 See also Inter-Am. Comm'n on Human Rights, *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*.

Indigenous peoples may assert a right to property to protect their traditional lands and resources¹⁵⁶ from exploitation and environmental degradation.¹⁵⁷ States have been called on to take the measures aimed at restoring, protecting, and preserving the rights of indigenous peoples to their ancestral territories.¹⁵⁸ 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.¹⁵⁹ In its 2007 judgment in the case of the *Saramaka People v. Suriname*,¹⁶⁰ 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.¹⁶¹ These requirements parallel the Nagoya Protocol on Access to Genetic Resources and their Fair and Equitable Sharing of Benefits arising from their Utilization to the Convention on Biological Diversity (Nagoya, 29 October 2010). The Court itself cited the views of the U.N. Human Rights Committee,¹⁶² ILO Convention Number 169,¹⁶³ World Bank policies,¹⁶⁴ and the 2007 U.N. Declaration on the Rights of Indigenous Peoples.¹⁶⁵ This right to compensation extends to any deprivation of the regular use and enjoyment of property.¹⁶⁶

The African Commission on Human and Peoples Rights also has recognized the rights of indigenous peoples to their lands and natural resources. See Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v. Kenya, 276/2003, African Commission on Human and Peoples' Rights, 4 February 2010.

156 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. Ct. H.R. (ser. C) No. 79 (Aug. 31, 2001) [hereinafter *Awas Tingni Case*].

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

158 See, e.g., *Yanomami Case*; *Dann Case*.

159 *Id.* para. 173(4).

160 *Case of the Saramaka People v. Suriname*, 2007 Inter-Am. C.H.R. (ser. C) No. 172 (Nov. 28, 2007) [hereinafter *Saramaka Case*]. See also *Sawhoyamaya Indigenous Community v. Paraguay Case*, 2006 Inter-Am. C.H.R. (ser. C) No. 146, para. 248(1)-(3) (Mar. 29, 2006)

161 *Id.* para. 129.

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

163 *Id.* n.128.

164 *Id.*; see *Operation Directive 4.10: Indigenous Peoples*, in WORLD BANK, THE WORLD BANK OPERATIONAL MANUAL (2005).

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

166 *Id.* para. 139.

ARTICLE 17

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 plans, programmes and policies;**
 - 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, through their membership in international organizations, undertake to pursue within such organizations policies which are consistent with the provisions of this Covenant.**

Article 17 provides substantive and procedural guidance for giving effect to the concept of sustainable development, which requires integrating environmental, developmental and social policies.¹⁶⁷ 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.¹⁶⁸ As stated earlier, it encompasses the reality that environmental conservation, human rights, and economic development are mutually supportive and should be pursued nationally and internationally.¹⁶⁹ As stated in the 2030 Agenda for Sustainable Development, “Sustainable development recognizes that eradicating poverty and inequality, preserving the planet and creating sustained and inclusive economic growth are linked to each other and are interdependent.”

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

¹⁶⁷ See also Article 1 (Objective).

¹⁶⁸ 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).

¹⁶⁹ See e.g., Article 2 of the ASEAN Agreement (1985) and Article 7 of WCED Legal Principles (1986).

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 44 (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 14(5) (States) and Article 55(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 development 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.¹⁷⁰ 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.¹⁷¹ 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 18

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 recognised in the 1982 United Nations Convention on Law of the Sea (UNCLOS) and a number of regional instruments.¹⁷² In turn, a

¹⁷⁰ 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.

¹⁷¹ See Part XI.

¹⁷² United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982), Art. 211, UN Doc. 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 recognises 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.¹⁷³ 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.¹⁷⁴

Article 18 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.¹⁷⁵ This provision is equally applicable to domestic and international environment policy.¹⁷⁶

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.¹⁷⁷ 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”.¹⁷⁸ This goes further than merely enjoining the

CONF 62/122 (1982); Misc 11 (1983), Cmd. 8941, 21 I.L.M. 1261 (1982) (hereinafter UNCLOS). The regional seas conventions are discussed in Chapter 11.

173 New York, 9 May 1992, Art. 1(1).

174 UNCLOS, Art. 195.

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

176 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.

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

178 Article 195. See also Articles 207-212 of UNCLOS (1982), Article 6 of the Paris Marine Pollution Convention

substitution of more detrimental environmental harm,¹⁷⁹ in that even the transfer of an equivalent level of harm is prohibited. It would, however, permit the transfer or substitution of lesser forms of harm.¹⁸⁰

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 countries¹⁸¹ and the European Union.¹⁸² 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.¹⁸³ 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.¹⁸⁴ This might require institutional adjustments to support integrated and coordinated decision-making, inspection and enforcement.¹⁸⁵

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.¹⁸⁶ 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.

(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).

179 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.”

180 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).

181 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 Emission Control Act (1990) of Germany.

182 See Commission Proposal for a Directive on Integrated Pollution Control (1993).

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

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

185 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.

186 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 19

EMERGENCIES AND DISASTERS

- 1. Parties shall, without delay and by the most expeditious means available, notify potentially affected States and competent international organizations of any industrial or other technological emergency or natural disaster 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 an emergency or disaster 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 or disaster.**
- 3. Parties shall take all necessary measures to provide immediate relief for those displaced by emergencies or disasters in the state in which the displaced persons are at present living, regardless of the state of origin of the displaced persons.**
- 4. States shall provide scientific, technical, logistical and other cooperation to Parties experiencing an emergency or disaster. Cooperation may include coordination of international actions and communications, making available response personnel, response equipment and supplies, scientific and technical expertise and humanitarian assistance.**

Article 19 addresses sudden, unforeseen threats to the environment resulting from intentional or negligent human conduct or from natural causes. Recognising 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.¹⁸⁷ It also draws upon resolutions of the General Assembly. For example, G.A. res. A/69/219, adopted 19 December 2014, ‘International Strategy for Disaster Reduction’, stressed the need to foster better understanding and knowledge of the causes of disasters and to build resilience and strengthen coping capacities, in particular in developing countries, through, inter alia, the exchange of best practices, the transfer of technology, as mutually agreed, and technical knowledge, the provision of educational and training programmes for disaster risk reduction and access to relevant data and information, the strengthening of institutional arrangements and the promotion of community participation, recognizing that women play a vital role in disaster risk reduction, ownership through community-based disaster risk management approaches and a people-centred, holistic approach, in order to build an inclusive society and to protect livelihoods and productive assets, including livestock, working animals, tools and seeds.

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

¹⁸⁷ Nuclear Notification Convention (1986) and Nuclear Assistance Convention (1986). See also Oil Pollution Preparedness Convention (1990).

to the environment of other States or areas beyond national jurisdiction.¹⁸⁸ 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 14(1) (States)).¹⁸⁹ 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.¹⁹⁰ Because of this status, the obligation to notify includes an obligation to give notice to 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.¹⁹¹ 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.¹⁹²

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 14 (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.¹⁹³ Parties are required to cooperate only to the extent that their capabilities so permit, and to their best abilities.

188 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".

189 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".

190 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 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 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").

191 See also Article 48 (Monitoring of Environmental Quality).

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

193 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).

Paragraph 3 applies the principles of prevention and precaution (Articles 6 and 7), based on provisions in a number of international instruments.¹⁹⁴ Compliance with this obligation also requires compliance with Article 41 (Transboundary Environmental Effects) and Article 46 (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 41(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 14.

ARTICLE 20

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 or the environment.

Article 20 is largely based on the international legal regime for protection of the stratospheric ozone layer,¹⁹⁵ established by the Vienna Convention on the Ozone Layer (1985), its Montreal Protocol (1987), and adjustments thereto.¹⁹⁶ 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

194 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.

195 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.

196 Adjustments were made by the Conference of the Parties in London 1990, Copenhagen 1992, Vienna, 1995, San Jose 1996, and Beijing, 1999.

the restriction of certain human activities. The regime outlined in the Montreal Protocol, which contains 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.¹⁹⁷

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.¹⁹⁸ 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.¹⁹⁹ In order to prevent “free riders”, it would also encompass import and export restrictions on controlled substances listed in the Montreal Protocol,²⁰⁰ as well as trade restrictions on items produced with such substances.²⁰¹ These trade restrictions should comply with Articles 38(1) (Trade and Environment).

Article 20 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 8 (Right to Development), environmentally sound technology should be transferred from the industrialized to the developing world.²⁰² 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 36 (Consumption and Production Patterns).

ARTICLE 21

GLOBAL CLIMATE

Parties shall take all appropriate measures to protect the Earth’s climate system and enhance the capacity of natural systems and human communities to cope with 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**

197 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 co-operate in harmonizing appropriate policies to control, limit, reduce or prevent human activities under their jurisdiction...”

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

199 See Articles 2 and 3.

200 Articles 4(1) and (2).

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

202 See also Article 51 (Development and Transfer of Technology).

- b) Establish risk management and implement adaption measures to enable climate-resilient development; and**
- c) Establish genuine and durable partnerships with those States, particularly Small Island Developing States which, in view of their unique and particular vulnerabilities, face significant risks from climate change, including inter alia rising sea levels.**

The WSSD Plan of Implementation reaffirmed that change in the Earth's climate and its adverse effects are a common concern of humankind. The 2030 Agenda for Sustainable Development refers to the prospect of irreversible climate change as one of the main challenges faced by humanity, noting that "The survival of many societies, and of the planet itself, is at risk" (para. 11). The Agenda affirms that the global nature of climate change calls for the widest possible international cooperation aimed at accelerating the reduction of global greenhouse gas emissions (para. 27). SDG Goal 13 aims to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries, based on the UNFCCC. Like Article 21, it calls for integrating climate change measures into national policies, strategies and planning; improving education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning; implementing the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible; and promoting mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities

Article 21 is designed to ensure regulation of anthropogenic influences on the climate system caused by emissions of greenhouse gases.²⁰³ 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.²⁰⁴ Its wording reflects scientific evidence that current levels of greenhouse gas emissions cannot be considered safe.²⁰⁵ 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 21 calls on Parties to take action within certain time-periods, which if implemented multilaterally, will require agreed timetables for emissions reductions.²⁰⁶ Parties should act immediately, recognising 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 17

²⁰³ See Article 1(5) of the Climate Change Convention (1992) for a definition of greenhouse gases.

²⁰⁴ See e.g., LRTAP Convention (1979) and Protocols thereto.

²⁰⁵ See also Article 3(3) of the Climate Change Convention (1992).

²⁰⁶ See the Kyoto Protocol (1997).

(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 12 (Eradication of Poverty)). As such, Article 21 should be read in conjunction with other provisions of the Draft Covenant which are designed to assist all developing countries in attaining sustainable development.²⁰⁷

ARTICLE 22

AIR

Parties shall take all appropriate measures to protect human health and the environment by, reducing and preventing air pollution, including long-range transboundary air pollution. To this end, Parties shall, individually or jointly,

- a) set emission limits for major sources according to best available technology;**
- b) set ambient quality standards which represent a high degree of safety;**
- c) set total emission ceilings for limiting and reducing the overall pollution load on the environment; and**
- d) combat air pollution in heavily polluted areas by establishing and implementing local air quality programmes and plans.**

Human health and the environment can be adversely affected by air pollution. First, the introduction of harmful substances into the atmosphere, including acids, nitrogen dioxide (NO₂), NO_x and Sulphur oxides (SO_x), hydrocarbon emissions, particulate matter (PM) and heavy metals, particularly mercury and lead, can damage health and the environment near the source of the pollutants. Moreover, strong horizontal winds can spread pollutants. Second, a number of substances, including chlorofluorocarbons (CFCs) and halons, when emitted into the atmosphere cause depletion of the ozone layer, which filters out ultraviolet radiation from the sun; when such radiation passes to the earth's surface unfiltered it can damage human health, particularly by causing skin cancer and threatening vision, and damage biodiversity. Third, changes in the composition of the atmosphere can cause climate change. A significant contribution to climate change can be anthropogenic emissions of greenhouse gasses, including carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), chlorofluorocarbons, and tropospheric ozone (O₃).

Multilateral Environmental Agreements (MEAs) relating to the atmosphere include the 1979 Convention on Long-range Transboundary Air Pollution, (Convention) and its protocols; the 1985 Vienna Convention for the Protection of the Ozone Layer and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer; and the 1992 United Nations Framework Convention on Climate Change (UNFCCC) and the 1997 Kyoto Protocol.²⁰⁸ In addition, in resolution 1/7: Strengthening the role of the United Nations Environment Programme in promoting air quality

²⁰⁷ E.g., Articles 35-39.

²⁰⁸ For a comprehensive list of key multilateral and bilateral environmental agreements relating to air pollution, ozone depletion and climate change, see the International Law Commission's first report on the protection of the atmosphere Prepared by Mr. Shinya Murase, Special Rapporteur (A/CN.4/667, 14 February 2014).

(resolution 1/7), UNEA encouraged Governments to take action across sectors to improve air quality; to formulate action plans and establish and implement nationally-determined ambient air quality standards; to make air quality data more easily accessible and understandable to the public; and to share with the UNEP Secretariat and other states the results and experiences of their efforts.²⁰⁹

National legislation often addresses air pollution through air quality standards and access to information, as well as local air quality management, which provides for local governments to take measures to address local problems, the regulation of road transport, domestic fires, and nuisances. Most states will have extensive industrial air pollution regimes, and many will integrate air pollution regulation with other pollution controls. Spatial planning can be a valuable tool to avoid air pollution. The World Health Organisation's air quality guidelines provide global guidance on thresholds and limits for key air pollutants that pose health risks. The Guidelines apply worldwide and are based on expert evaluation of current scientific evidence for particulate matter (PM), ozone (O3), nitrogen dioxide (NO2) and Sulphur dioxide (SO2). The World Health Organisation's air quality guidelines provide global guidance on thresholds and limits for key air pollutants that pose health risks. The Guidelines apply worldwide and are based on expert evaluation of current scientific evidence for particulate matter (PM), ozone (O3), nitrogen dioxide (NO2) and Sulphur dioxide (SO2).

Meanwhile the International Law Commission (ILC) is considering questions relating to basic principles for the protection of the atmosphere, including the general obligations of States to protect the atmosphere, the principle of *sic utere tuo ut alienum non laedas* as applied to transboundary air pollution, and the principles of equity, sustainable development and good faith. The Commission is working on some general draft guidelines on the definition and scope of their project as well as three draft guidelines on the basic principles for the protection of the atmosphere: common concern of humankind, general obligation of States, and international cooperation.²¹⁰

ARTICLE 23

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 and loss, to combat desertification, to safeguard the processes of organic decomposition and to promote the continuing fertility of soils.

Elements of Article 23 can be derived from existing international instruments at the global level,²¹¹ but soil conservation *per se* is only addressed in regional treaties²¹² and the WSSD Plan of Implementation. The latter text calls on States to combat desertification and take measures such

209 Proceedings of the United Nations Environment Assembly of the United Nations Environment Programme at its first session, annex (UNEP/EA.1/10).

210 Report of the International Law Commission: Sixty-third session General Assembly Official Records; Sixty-sixth session Supplement No. 10 (A/66/10)

211 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.

212 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.

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.²¹³ By the same token, soil conservation is affected by the operation of other natural systems, such as forests.²¹⁴ 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. “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.

213 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.

214 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.

It is clear from Agenda 21 that the gathering and exchange of data is especially important in the case of soil conservation.²¹⁵ Also important in soil conservation are local communities and individuals. As such, Parties should increase public awareness of the issues surrounding soil conservation (Article 54 (Education, Training and Public Awareness)),²¹⁶ so that individuals can act sustainably and public participation in decision-making can be meaningful (Article 15(3) (Physical and Legal Persons)).²¹⁷ Capacity-building of developing countries in all these matters should be a high priority.²¹⁸

Implementation of Article 23 is linked to other provisions in the Draft Covenant, such as Article 30 (Pollution), particularly with regard to pollution from agricultural run-off resulting from pesticides and other dangerous chemicals,²¹⁹ and Article 32 (Waste).²²⁰ Given the importance of soil, Parties should consider soil conservation in the establishment of protected areas, especially in the context of complying with Article 26 (Ecosystem Approach) and Article 27 (Biological Diversity).²²¹

Decision-making regarding soil, and more generally land-use, should be based on environmental and socio-economic considerations,²²² for example, regarding land-tenure rights.²²³ The conservation of soils must be an integral consideration in the physical planning of Parties and Article 23 should be read together with Article 45 (Spatial 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 silvicultural planning must have soil conservation as an objective,²²⁴ in addition to the provision of food security. All of this may require improved coordination between the relevant government agencies.²²⁵

ARTICLE 24

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

215 See Paragraphs 10.11 and 10.12. Accordingly, Articles 39-41 and 43 of the Draft Covenant are relevant in this context.

216 See Paragraph 10.9 of Agenda 21 (1992).

217 See Paragraph 10.10 of Agenda 21 (1992).

218 See Paragraph 10.17 of Agenda 21 (1992).

219 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).

220 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.

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

222 See Paragraph 10(3) of Agenda 21 (1992).

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

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

225 See Paragraph 10.18 of Agenda 21 (1992).

oceans, in underground waters such as in aquifers or watercourses such as in 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.

Water is essential for life on Earth.²²⁶ Article 24 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.²²⁷

Article 24 is based on a general obligation in international law to protect the quality²²⁸ and quantity of water, for anthropocentric (“basic human needs”) and eco-centric (aquatic ecosystems) purposes.²²⁹ 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.²³⁰ Various international treaties and other texts relating to water resources have recognised the need to provide water for environmental requirements.²³¹ The concept is also gaining recognition at the national level, as reflected in the laws of South Africa,²³² the USA,²³³ and Australian states.²³⁴ The concept of environmental flows is part of the broader concept of adopting an ecosystem approach to water resources management at the river basin

226 See, e.g., GA Res A/69/215 of Dec. 19, 2014, ‘International Decade for Action, “Water for Life”, 2005–2015, and further efforts to achieve the sustainable development of water resources’ (“Recognizing that water is at the core of sustainable development, that it is critical for the eradication of poverty and hunger, and that it is indispensable for human health and well-being and central to achieving the Millennium Development Goals and other relevant internationally agreed goals in the economic, social and environmental fields”).

227 See also Article 18 (Transfer or Transformation of Environmental Harm).

228 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.

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

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

231 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).

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

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

234 1997 South Australia Water Resources Act.

level,²³⁵ and thus the relevant applicable instruments are not only those dealing directly with water resources, but also those concerned with the protection of nature and ecosystems.²³⁶

“Basic human needs,” should be understood within the context of the Universal Declaration of Human Rights and other human rights instruments,²³⁷ 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. Increasingly in international and constitutional law, access to safe drinking water and water for sanitation is recognized as a human right.²³⁸ At the regional level, the African Charter on the Rights and Welfare of the Child and the 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. The

235 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.

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

237 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”.

238 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. ICESCR 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, U.N. Doc. E/C.12/2000/4 (2000), at para 4.

2030 ASD refers to safe and affordable drinking water as a basic and universal human right, also aiming to achieve a world where food is safe, affordable and nutritious; where there is adequate and accessible sanitation. A world where human habitats are safe, resilient and sustainable and there is affordable, reliable and sustainable energy.²³⁹

International law is well developed concerning atmospheric,²⁴⁰ marine,²⁴¹ and surface fresh water,²⁴² 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.²⁴³

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 47 (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.

ARTICLE 25

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 of these systems as an essential basis for ecosystem conservation or human livelihoods and scientific research, including *inter alia*,

- a) forests and mountains,**
- b) peatlands, freshwater wetlands and floodplains,**
- c) cave systems, drylands, deserts and arid zones,**
- d) marine and coastal ecosystems,**
- e) glaciers and polar regions.**

239 Transforming Our World: The 2030 Agenda for Global Action (2015), para. 7.

240 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).

241 See e.g., Part XII of UNCLOS (1982).

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

243 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 (1999) also defines water as "all kinds of groundwater and surface water including the water of lakes, rivers, oceans and seas".

Article 25 aims to protect the natural systems necessary to support the global ecosystem,²⁴⁴ i.e., the conjunction of processes that make life on Earth possible.²⁴⁵ “Natural systems” include the main ecosystems as well as their individual components (physical, chemical, and biological).²⁴⁶ The Article applies to all natural systems, including those in relation to areas beyond national jurisdiction,²⁴⁷ such as the high seas and Antarctica.

While there is some overlap between this provision and Article 27 (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.²⁴⁸ This obligation must be implemented through application of Part VIII of the Draft Covenant, especially Article 45 (Spatial Planning) and Article 46 (Environmental Impact Assessment).²⁴⁹ 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.

244 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).

245 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”.

246 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 23 (Soil), Article 27 (Biological Diversity) and Article 45 (Spatial Planning).

247 See also Article 58.

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

249 See also Articles 43 (Transboundary Natural Resources) and 39 (Monitoring of Environmental Quality).

This paragraph singles out for special attention particular fragile or threatened natural systems, including forests,²⁵⁰ freshwater wetlands,²⁵¹ and marine and coastal ecosystems.²⁵² According to the *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.²⁵³ 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 recognised. Mountain ecosystems were recognised in the WSSD Plan of Implementation as supporting particular livelihoods and significant watershed resources, biological diversity and unique flora and fauna.²⁵⁴ Deserts and drylands are addressed in the UN Convention to Combat Desertification. These ecosystems are particularly fragile and vulnerable to the adverse effects of climate change and need specific protection. 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.

250 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 Preambular 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”). More generally, see the Protocol on Sustainable Forest Management to the Framework Convention on the Protection and Sustainable Development of the Carpathians (2011) which refers to the “multiple functions of forests and benefits from sustainable forest management... especially with reference to natural carbon stock, water supply and biodiversity as well as to the contribution to rural development.”

251 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”).

252 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).

253 See section 5.

254 Treaties protecting mountains include the Convention for the Protection of the Alps (1991) with its Protocols and the Framework Convention on the Protection and Sustainable Development of the Carpathians (Kiev, Ukraine, 23 May 2003) with its Protocols.

ARTICLE 26

ECOSYSTEM APPROACH

Parties shall take all appropriate measures to implement their obligations according to relevant principles of the ecosystem approach by employing strategies for integrated management of land, water and living resources for environmental conservation and sustainable use.

Article 26 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 43(a) (Transboundary Natural Resources) addresses natural systems that cross national boundaries. Article 24 of the Watercourses Convention defines management to mean 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.

Sustainable Development Goals 14 and 15 adopt an ecosystem approach in calling for states by 2025 to prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution; sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans; minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels. By 2020, they should effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics; conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information; prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation. More generally, they must ensure the full implementation of international law, as reflected in the United Nations Convention on the Law of the Sea for States parties thereto, including, where applicable, existing regional and international regimes for the conservation and sustainable use of oceans and their resources by their parties to those regimes

ARTICLE 27

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 networks and complementary conservation management. To this end, the Parties shall:**
 - a) integrate conservation and sustainable use of biological diversity and its components into their spatial planning utilizing ecosystem management;**
 - b) establish a system of protected areas, with buffer zones and interconnected ecological corridors; and**
 - c) prohibit the taking or destruction of endangered or threatened species, protect their habitats, and where necessary develop and apply recovery plans for such species.**

- 2. Parties shall regulate or manage biological organisms and ecological systems 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 plants and animals below the level necessary to ensure a sustainable level of regeneration;**
 - c) safeguard and 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 27 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 recognised and led to adoption at Rio de Janeiro of the Convention on Biological Diversity (1992).²⁵⁵ “Biological diversity” should be understood in the same broad sense as in that Convention,²⁵⁶ a definition

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

256 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.

that is included in many subsequent agreements, including most of the protocols and annexes to regional seas agreements.²⁵⁷

Paragraph 1 indicates that the preferred method of conserving biological diversity is through *in situ* conservation.²⁵⁸ *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.²⁵⁹ 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 45 (Spatial Planning), especially Article 45(3).

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.²⁶⁰ 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 effects 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

257 See, e.g. the Protocol for the Conservation of Biological Diversity to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Ashgabat, 30 May 2014), Article 1(a), and also Annex V on the Protection and Conservation of the Ecosystems and Biological Diversity of the Maritime Area to the 1992 OSPAR Convention.

258 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”. Subsequent agreements are similar. See Article 6, The Protocol for the Conservation of Biological Diversity to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Ashgabat, 30 May 2014).

259 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 (1980) (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).

260 See, e.g., Article 9 and Annex II of the Protocol for the Conservation of Biological Diversity to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Ashgabat, 30 May 2014), setting forth the criteria for site selection of protected areas.

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.²⁶¹ “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.²⁶² 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,²⁶³ and entails several 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.²⁶⁴

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

261 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). 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.

262 Article 2.

263 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.

264 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 43 (Transboundary Natural Resources) and Article 69 (Areas Beyond the Limits of National Jurisdiction).

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 dependent²⁶⁵ and associated²⁶⁶ species, particularly important in the context of fishing,²⁶⁷ and by seeking to prevent incidental taking.²⁶⁸

ARTICLE 28

CULTURAL AND NATURAL HERITAGE

Parties shall take all appropriate measures to:

- a) **protect cultural and natural heritage including measures: to conserve or rehabilitate, *in situ*, cultural and natural monuments, and areas, including landscapes, of outstanding scientific, cultural, spiritual, or aesthetic significance;**
- b) **prevent all measures and acts which are likely to harm or threaten such monuments or areas; and**
- c) **preserve, *ex situ*, heritage at risk of loss; and**
- d) **safeguard traditional knowledge, craftsmanship and skills for their inherent value, and to achieve environmental sustainability.**

The main object of Article 28 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.²⁶⁹ Major cultural monuments and areas, including ancient cities and cultural landscapes, as well as natural areas

265 “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.

266 “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.

267 “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.

268 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.

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

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,²⁷⁰ as well as in Antarctica.²⁷¹ 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 other Parties.²⁷² 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.²⁷³

This provision also draws inspiration from the UN Declaration on the Rights of Indigenous Peoples²⁷⁴, 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.

Related to this Article and others concerning activates is GA Res. A/69/233 (19 Dec. 2014) ‘Promotion of sustainable tourism, including ecotourism, for poverty eradication and environment protection’²⁷⁵ The resolution stresses that sustainable tourism, including ecotourism, is a cross-cutting activity that can contribute to the fight against poverty, the protection of the environment and the promotion of sustainable development, and that it has a role in promoting rural development and better living conditions for sustainable rural populations. The resolution emphasizes the need to optimize the economic, social, cultural and environmental benefits stemming from sustainable tourism, including ecotourism activities, in all countries, particularly

270 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 recognises 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.

271 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”.

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

273 See also Article 40(3) (Military and Hostile Activities) of the Draft Covenant; the Hague Cultural Property Convention (1954) and the Additional Protocol I (1977).

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

275 See also Decision VII/14 of the CBD COP 7 which adopted the Guidelines on Biodiversity and Tourism Development and Protocol on Sustainable Tourism to the Carpathian Convention (Bratislava, 27 May 2011).

developing countries, including African countries, the least developed countries and small island developing States. It also recognizes that sustainable tourism, including ecotourism, creates significant opportunities for the conservation, protection and sustainable use of biodiversity and of natural areas by encouraging indigenous peoples and local communities in host countries and tourists alike to preserve and respect the natural and cultural heritage. It calls for establishing, at the national level, where necessary, appropriate policies, guidelines and regulations, in accordance with national priorities and legislation, for promoting and supporting sustainable tourism, including ecotourism, and minimizing any potential negative impact, including through conducting an environmental impact assessment, in accordance with national legislation, for the development of sustainable tourism, including ecotourism opportunities. At the same time, the resolution stresses, as does this Covenant, that indigenous cultures, traditions and knowledge, in all their aspects, are to be fully considered, respected and promoted in policy development for sustainable tourism, including ecotourism, and underlines the importance of promoting the full and early participation and involvement of indigenous peoples and local communities in decisions that affect them and of integrating their knowledge, heritage and values in sustainable tourism, including ecotourism initiatives, as appropriate.

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.²⁷⁶ While different activities may generate the same process, using different substances and technologies,²⁷⁷ the same activity may result in different processes.²⁷⁸

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.

In Part V, Article 29 (Prevention of Harm) lays down the general rule, while Article 30 (Pollution), Article 32 (Waste), and Article 33 (Introduction of Alien and 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

276 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.

277 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.

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

provision of assistance to developing countries.²⁷⁹ Although each of these provisions addresses individual processes and activities, they should each be applied in accordance with Article 18 (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 29

PREVENTION OF HARM

Parties shall identify and evaluate substances, products, technologies, processes and categories of activities that have or are likely to have significant adverse effects on the environment or health. The measures shall provide for a system of survey, authorisation and registration, as well as procedures for management, substitution or prohibition, as appropriate to prevent harm and redress potential risks.

Article 29 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.²⁸⁰ 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.²⁸¹ 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. . .”

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 46 (Environmental Impact

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

280 See also Articles 6 (Prevention), 7 (Precaution), and 11(1)(a) and (b) (States) of the Draft Covenant.

281 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 too 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 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.

Assessment)) and the latter through application of Article 48 (Monitoring of Environmental Quality). Regulation and management will occur as a result of adopting and implementing standards (Article 47 (Environmental Standards and Controls)), but the ideal method would be through the elaboration of process management plans.²⁸²

ARTICLE 30

POLLUTION

Parties shall take, individually or jointly, all appropriate measures to prevent, reduce, control, and eliminate, to the fullest extent possible, 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 30 is to prevent, reduce, and control pollution from all sources. It reflects existing conventional and customary international law²⁸³ 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 multilateral 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, whether point sources or diffuse sources.²⁸⁴ This provision should be read in conjunction with Article 47 (Environmental Standards and Controls). The International Tribunal for the Law of the Sea, in the MOX case, 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.²⁸⁵

282 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.

283 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).

284 See Article 2 of the Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities to the Framework Convention on the Protection of the Marine Environment of the Caspian Sea (Moscow, 12 Dec. 2012). Point sources means sources of pollution where emissions are introduced into the environment from any discernible, confined and discrete conveyance from which pollutants are or may be discharged. Diffuse sources means sources of pollution other than point sources from which substances enter the environment as a result of runoff, precipitation, atmospheric deposition, drainage, seepage or hydrologic modification or destruction of habitats.

285 This is adapted from Article 1(4) of UNCLOS (1982) and Part A (Annex) of the OECD Council Recommendation

The wording in Article 30 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 46 (Environmental Impact Assessment)) and licensing, as well as consistent monitoring of the environment (Article 48 (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.²⁸⁶ Environmental quality,²⁸⁷ product²⁸⁸ and technological²⁸⁹ 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 18 (Transfer of 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.

The final element, harmonization of policies, is the natural outcome of international cooperation.²⁹⁰ 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 base.²⁹¹

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.

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

287 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).

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

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

290 See Article 23 of the Watercourses Convention.

291 See e.g., Article 100a of the EC Treaty (1957), as amended.

ARTICLE 31

NOISE

Parties shall take all appropriate measures to minimize ambient noise that is harmful to human health and well-being and disruptive to other living organisms. To this end, they shall assess populations affected by community, transportation and industrial noise, adopt health guidelines and legislation for noise-abatement and control, implement measures to reduce ambient noise in all environments, and ensure that ambient noise is taken into account in all environmental impact assessments and in spatial planning.

Noise pollution adversely affects the lives of millions of people. Studies have shown that there are direct links between noise and health. Problems related to noise include stress related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity. Noise-induced hearing loss can be caused by noise from outside or inside structures. High noise levels can contribute to cardiovascular effects in humans and an increased incidence of coronary artery disease. In animals, noise can increase the risk of death by altering predator or prey detection and avoidance, interfere with reproduction and navigation, and contribute to permanent hearing loss.

Globally, the source of most outdoor noise, often referred to as environmental noise, is machines and transportation systems, motor vehicles, aircraft, and trains. Poor urban planning may give rise to noise pollution, where neighboring industrial and residential buildings can produce noise pollution in the residential areas. Indoor noise is often related to workplaces and caused by machines, building activities or loud music.²⁹²

Roadway noise can be reduced by the use of noise barriers, limitation of vehicle speeds, alteration of roadway surface texture, limitation of heavy vehicles, use of traffic controls that smooth vehicle flow to reduce braking and acceleration, and tire design. Aircraft noise can be reduced by using quieter jet engines. Altering flight paths and time of day runway has benefitted residents near airports. Industrial noise has been addressed since the 1930s via redesign of industrial equipment, shock mounted assemblies and physical barriers in the workplace.

The World Health Organization has taken up the issue of noise pollution. In 2009 it issued guidelines for night noise within Europe and two years later quantified the burden of disease and shortened lifespan from environmental noise.²⁹³ It has also reported on the detrimental use of personal audio devices, including smartphones, and exposure to damaging levels of sound at noisy entertainment venues such as nightclubs, bars and sporting events. Data from studies in middle- and high-income countries analysed by WHO indicate that among teenagers and young adults aged 12-35 years, nearly 50% are exposed to unsafe levels of sound from the use of personal audio devices and around 40% are exposed to potentially damaging levels of sound at entertainment venues. Unsafe levels of sounds can be, for example, exposure to in excess of 85 decibels (dB) for eight hours or 100dB for 15 minutes.

National noise control laws have been adopted in Japan (1968, latest amendment 2000), United States (1972), Netherlands (1979), France (1985), Spain (1993), and Denmark (1994).

292 See: Occupational exposure to noise: evaluation, prevention and control, Berenice Goelzer, Colin H. Hansen and Gustav A. Sehrndt, eds. (WHO Special Report S 64).

293 Burden of disease from environmental noise - Quantification of healthy life years lost in Europe: Environmental burden of disease from noise in Europe - WHO EURO (2011).

Environmental noise is defined and regulated in European directive 2002/49/EC. European law also addresses the specific issue of noise from air traffic.²⁹⁴

ARTICLE 32

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, recycled and recovered.**
- 3. Waste which cannot be reused, recycled or recovered, shall be disposed of in an environmentally sound manner, to the fullest extent possible at source.**
- 4. Parties shall provide for the identification, recovery, separate collection and safe-handling of products that have potential to become wastes hazardous to the environment or health.**
- 5. 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 32 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 recognises that wastes are a matter of concern at both the national and international levels.²⁹⁵ 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.²⁹⁶ It is a form of pollution, and therefore should be read together with Article 30 (Pollution).

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.²⁹⁷ This requirement should be realized partly through compliance with Article 36 (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.²⁹⁸ In addition, the Article also contemplates use of “clean” technology,

294 Directive 2002/30/EC, March 26, 2002, O.J. L 85/40.

295 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).

296 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).

297 See Paragraph 21.10 of Agenda 21.

298 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.

which can be achieved through technology and technology-forcing emissions standards,²⁹⁹ and a “cradle-to-grave” approach to regulation.³⁰⁰

Paragraph 2 requires that once waste is generated, all efforts should be made to dispose of it at source through reuse, recovery, and recycling. The purpose of this provision, a common feature of international law, is to reinforce and encourage the minimal generation of waste.³⁰¹ 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.³⁰²

Compliance with this provision will depend on the particular capabilities of each State. Reference should therefore be made to Articles 51 (Development and Transfer of Technology) and 56 (International Financial Resources), which should assist developing countries to meet these obligations.

Paragraphs 4 and 5 of this provision, addressing transboundary movement, are activated when disposal at source is not possible. It applies to the dangerous wastes.

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.³⁰³ 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.³⁰⁴ 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.³⁰⁵

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

300 See Article 18 (Transfer or Transformation of Environmental Harm).

301 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.

302 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”.

303 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).

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

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

ARTICLE 33

INTRODUCTION OF ALIEN SPECIES OR MODIFIED ORGANISMS

1. Parties shall prohibit the intentional introduction of alien species or modified organisms which may have adverse effects on other species or organisms, ecosystems or human livelihoods. 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 species, 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 introduced alien species or modified organisms when such species or 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 prevent the spread of zoonotic diseases, in order to prevent their transmission between species.

Article 33 addresses the risks to humans, biological diversity, and economic interests associated with the introduction of alien or modified species.³⁰⁶ 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.³⁰⁷ 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 prohibits 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

306 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) and Article 7 of the Protocol for the Conservation of Biological Diversity to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Ashgabat, 30 May 2014).

307 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).

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.³⁰⁸ 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 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.³⁰⁹ 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.³¹⁰

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.³¹¹

308 Resolution No. 1/119.

309 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.

310 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).

311 See Article 8 (Genetically Modified Species), Protocol for the Conservation of Biological Diversity to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Ashgabat, 30 May 2014). 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

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.³¹² It is important to note, 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.

ARTICLE 34

FOOD AND FEED PRODUCTION

Parties shall ensure that food and feed production methods, including agriculture, animal husbandry and aquaculture do not cause pollution or significant environmental damage, and are carried on in accordance with an ecosystem approach. They shall comply with applicable international standards, such as health standards, biodiversity obligations and controls on persistent organic pollutants, with a view to ensuring environmental conservation and sustainable use of natural resources. To this end, Parties shall:

- a) regulate food and feed production methods which are potentially associated with serious adverse effects on food and feed production and agricultural biodiversity, especially reduce the adverse effect of monocultures;**
- b) use the ecosystem approach in food and feed production;**
- c) ensure that agricultural and pasture land is primarily used for food and feed production;**
- d) take measures to protect and enhance agricultural crop diversity.**

Food security is a major concern of the international community, as is ensuring that production methods are ecologically sound. G.A. Res. A/69/177 of 18 Dec. 2014 recognizes the complex character of the global food crisis, in which the right to adequate food has been threatened to be violated on a substantial scale, as a combination of several major factors, such as the global financial and economic crisis, environmental degradation, desertification and the impacts of global climate change, as well as natural disasters and the lack in many countries of the appropriate technology, investment and capacity-building necessary to confront its impact, particularly in developing countries, least developed countries and small island developing States. It seeks to ensure that the human rights perspective is taken into account at the national, regional

Format for Notifications Concerning the Deliberate Release into the Environment of Genetically Modified Organisms for Purposes other than for Placing on the Market.

312 The need for controlling introductions of alien species has been recognised 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); Articles 7 and 8 the Protocol for the Conservation of Biological Diversity to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Ashgabat, 30 May 2014).

and international levels in measures to address the impacts of the global food crisis and expresses deep concern at the number and scale of natural disasters, diseases and pest infestations, as well as the negative impact of climate change, and their increasing impact in recent years, which have resulted in substantial loss of life and livelihood and threatened agricultural production and food and nutrition security, in particular in developing countries. The resolution emphasizing that a multisectoral approach that integrates nutrition across all sectors, including agriculture, health, water and sanitation, social protection and education, as well as a gender perspective, is critical to achieving global food and nutrition security and the realization of the right to food.

The 2030 Agenda for Sustainable Development includes a commitment to end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round. It seeks, by 2030, to double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment. The dangers of unsustainable practices are addressed by seeking to ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality.

Agricultural crop diversity means maintaining the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed. In various resolutions, including A/69/177, the General Assembly has recognized the importance of the protection and preservation of agrobiodiversity in guaranteeing food security and the right to food for all.

The provisions herein draw upon the Principles for Responsible Investment in Agriculture and Food Systems, which were transmitted to the governing bodies of the Food and Agriculture Organization of the United Nations for consideration at the forty-first session of the Committee on World Food Security, held in October 2014. The article also draws on regional instruments concerned with means and methods of food production, such as the convention concerning aquaculture in the Americas.³¹³ It defines aquaculture as the cultivation of animals and plants in water during part or all of their phases of development and establishes an intergovernmental network to contribute to the sustainable and equitable development of regional aquaculture, with an emphasis on its social, economic, scientific, technological and environmental dimensions.

313 Convención para el Establecimiento de la RED de Acuicultura de las Américas (Managua, 18 April 2012). See also the Agreement on the Central Asian and Caucasus Regional Fisheries and Aquaculture Commission (2 October 2009).

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 35

ACTION TO ERADICATE Poverty

Parties, individually and 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 and environmental rights;**
- b) respect, ensure, promote and fulfil the rights of vulnerable and marginalized persons, in particular to food, water, housing, healthcare 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 access to potable water and sanitation;**
- f) provide education, with a particular focus on, and with the participation of women and the girl child, 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 35 is designed to implement the principle set forth in Article 12 (Eradication of Poverty) of the Draft Covenant. This provision is addressed to all Parties, recognising 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.³¹⁴ The obligations are also related to other provisions in the Draft Covenant, particularly Article 15(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 2030 Agenda for Sustainable Development, Goal 1, gives concrete targets related to the goal and this provision.

ARTICLE 36

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, recycling and recovery of materials to the fullest extent possible;**
- d) promote product designs that increase reuse, recycling and recovery and as far as possible to eliminate waste;**
- e) facilitate the role and participation of consumer organizations in promoting more sustainable consumption patterns;**
- f) encourage and facilitate that economic enterprises adopt corporate social responsibility policies and 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 36 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

314 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).

unsustainable consumption patterns, the essence of the obligation is to make best efforts, in good faith, to develop strategies to make such changes. To improve the sustainability of ecosystems through adequate patterns of production and consumption, participants in the Rio+20 meeting adopted a 10-Year Framework of Programmes on Sustainable Consumption and Production (SCP), designating UNEP as the secretariat. UNEP's work on green economy law includes supporting the development and application of laws and integrated regulatory approaches to advance sustainable patterns of production and consumption in selected sectors. In 2008, the Swiss government and UNEP established a partnership to implement the methodology developed by the Marrakech Task Force on Sustainable Public Procurement, resulting in a project entitled "Capacity Building for Sustainable Public Procurement in Developing Countries.

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.³¹⁵ 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.³¹⁶

Subparagraphs (a) to (f) 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-making and is related to *subparagraph (d)*.³¹⁷

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.³¹⁸ Different Parties will achieve different results, depending on their individual capacities.

Subparagraph (e) is related to both *subparagraph (a)* and Article 15(3) (Physical and Legal Persons), but goes further by requiring each Party to not only remove obstacles to the

315 See also Article 12 (Eradication of Poverty).

316 See also Article 5 (Equity and Justice).

317 See also Article 14(3) (States).

318 See also Article 13(2)(b) (Integrating Environment and Development). 36b

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) recognizes the important role of private sector business enterprises in achieving sustainable patterns of production and consumption and the need to stimulate a stronger sense of corporate social responsibility. A study of the UN High Commissioner for Human Rights found over 200 existing initiatives and standards relevant to corporate and social responsibility mostly adopted over the last 15 years.³¹⁹ International instruments include the Organization for Economic Cooperation and Development Convention on Combating Bribery of Foreign Public Officials in International Business Transactions, the International Labour Organization Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, and the OECD Guidelines for Multinational Enterprises. The Secretary-General's United Nations Global Compact provides an example of a voluntary initiative backed by the United Nations. In "Business and Human Rights: Further Steps Toward the Operationalization of the 'Protect, Respect and Remedy' Framework," the Report of the Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises (A/HRC/14/27, 9 April 2010), John Ruggie insisted on the State duty to protect against violations of law by third parties, including business, through appropriate policies, regulation, and adjudication; the corporate responsibility to respect human rights, which means to act with due diligence to avoid infringing on the rights of others; and greater access by victims to effective remedy, judicial and non-judicial. The State duty to protect and the corporate responsibility to respect exist independently of one another, and preventive measures differ from remedial ones. Yet, all are intended to be mutually reinforcing parts of a dynamic, interactive system.

Subparagraph (g) is a specific application of the regime of environmental information. See Covenant Article 14(3).

ARTICLE 37

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) establish databases to inform policies with respect to population size and growth, population age structure, fertility, reproductive health and family planning, nutrition,**

³¹⁹ Report of the United Nations High Commissioner on Human Rights on the Responsibilities of Transnational Corporations and Related Business Enterprises with Regard to Human Rights, UN Doc. E/CN.4/2005/91 (Feb. 15, 2005), para. 7. See also: Corporations and Human Rights: A Survey of the Scope and Patterns of Alleged Corporate-Related Human Rights Abuse, Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises, A/HRC/8/5/Add.2 (May 23, 2008).

health and mortality, spatial distribution, and internal and international migration within the context of demographic, social, economic and environmental change;

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

Article 37 requires that Parties adopt demographic policies that are supportive of sustainable development.³²⁰ 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. The 2030 ASD supports this Article in the pledge that States will take account of population trends and projections in our national, rural and urban development strategies and policies (para. 29).

The provision includes seven mandatory actions, although the list is not exhaustive. *Subparagraph (a)* contains an obligation for each Party to conduct a regular census or other study to estimate the size of its population and then on the basis of the results to estimate the carrying capacity of its environment and develop appropriate programs; *subparagraph (b)* follows from (a) in seeking to base policies on comprehensive relevant data. The means of so doing are left to the discretion of each Party, consistent with other international obligations. *Subparagraph (c)* 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 (d)* 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. *Subparagraphs (e)* and *(f)* give effect to individual choice by requiring full information to be provided on the options concerning family planning consistent with international human rights obligations.³²¹ The 2030 Agenda for Sustainable Development, Goal 3, calls for ensuring, by 2030, universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes. It also seeks to reduce infant and maternal mortality. The related Goal 5.6, on gender equality, further calls for ensuring universal access to sexual and reproductive health and reproductive

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

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

rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences. **Subparagraph (g)** is related to Article 21 (Global Climate) and Article 19 (Emergencies and Disasters). It recognizes that changing environmental conditions, often irreversible, are increasingly causing large scale population movements both within States and across boundaries. Sustainable development cannot be achieved unless States address the needs of these persons. The African Union Convention on Specific Aspects of Refugee Problems in Africa is the only instrument to extend the term “refugee” to those displaced by at least some environmental conditions, defining the term to include “very person who, owing to . . . events seriously disturbing public order in either part or the whole of his country of origin or nationality, is compelled to leave his place of habitual residence in order to seek refuge in another place outside his country of origin or nationality.” The 215 Global Development Agenda, Transforming Our World, recognizes that international migration is a multi-dimensional reality of major relevance for the development of countries of origin, transit and destination, and that coherent and comprehensive responses are required. States agreed to cooperate internationally to ensure safe, orderly and regular migration involving full respect for human rights and the humane treatment of migrants, refugees and displaced persons (para. 37).

ARTICLE 38

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 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, harvesting, production, transport, marketing, and, where appropriate, ultimate disposal.
- 2. Parties shall 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 threaten or 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 38 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 objectives³²² and on the assumption that the well-being of all increases when goods and services move freely across national boundaries. However, this system is also perceived as permitting unsustainable practices. In ‘Transforming Our World: The 2030 Agenda for Global Action’ (2015) States expressed their commitment to an open, well-functioning, equitable and rules-based multilateral trading system and resolved to work together to enhance macro-economic and financial stability through improved policy coordination and coherence (para. 36)

Trade restrictions for environmental purposes have long been used to restrict markets for environmentally hazardous products and for items produced unsustainably,³²³ but many countries have been suspicious of attempts to impose trade restrictions for environmental purposes, fearing they are disguised instruments of protectionism. Article 38 strikes the balance between environmental protection and free trade goals in favour of environmental protection, while establishing safeguards to prevent abusive unilateral trade restrictions.³²⁴ In so doing, it reverses the current presumption in favour of free trade and against environmental norms.³²⁵ As a result Parties may have to work towards ensuring that the rules of international economic law are supportive of this end.³²⁶ 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 recognised 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 11 (Right to Development) of the Draft Covenant. This duty has been recognised in recent international instruments as being an essential component of sustainable development.³²⁷ 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

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

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

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

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

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

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

obstacle).³²⁸ 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 14(2) (States) of the Draft Covenant. Its wording is stronger than the prescription in Agenda 21 that international trade and environmental policies be consistent³²⁹ or that trade and environment be mutually supportive.³³⁰ 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 14).

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.³³¹ 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 51 (Development and Transfer of Technology)), or by compensating them for any undue hardship (see also Article 56 (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 21³³² and GATT

328 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.

329 Paragraph 2.20.

330 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)).

331 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.

332 Paragraph 39.3(d).

(1947)³³³ in seeking to eliminate protectionism and/or discriminatory trade barriers disguised as environmental measures.³³⁴

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 jurisdiction³³⁵ 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 69 (Areas Beyond National Jurisdiction), read in conjunction with Article 14 (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.³³⁶

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 14 (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,³³⁷ 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

333 Chapeau to Article XX of GATT (1947).

334 GATT/WTO 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.

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

336 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.

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

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.

Paragraph 2 focuses on biological resources³³⁸ 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.³³⁹ **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.³⁴⁰ 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.³⁴¹

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.³⁴² The 19th IUCN General Assembly requested that possibilities for compensating such States, as well as the precise modalities of compensation, be explored.

ARTICLE 39

TRANSNATIONAL ECONOMIC ACTIVITIES

1. **Parties shall take measures to prevent significant environmental harm to other Parties and minimize the risk thereof from economic activities conducted within their territory or under their jurisdiction or control.**
2. **The Parties shall require, from all economic entities of foreign origin located within their territory or otherwise 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**

338 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”.

339 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).

340 Article 8(b), (c), and (f).

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

342 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).

- c) **reasonably available data and information concerning the best available technology to prevent environmental harm.**
3. **In the case of activities of economic entities 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, as a minimum, the relevant standards of the Party of origin.**
5. **Parties shall cooperate with and encourage economic entities to develop and abide by guidelines or codes or conduct of corporate social responsibility.**
6. **Parties shall ensure access to justice for those harmed by economic activities of foreign origin.**

Article 39 aims to ensure that economic activities of foreign origin, such as those of transnational corporations and foreign investors, 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.³⁴³ 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 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.

Paragraph 1 reformulates Principle 21 to indicate its applicability to transnational economic activities. In fact, the Trail Smelter arbitration that provided the original decision on which Principle 21 is based, involved a private company operating in Canada emitting air pollutants

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

that caused transboundary harm. This paragraph codifies the resulting decision calling for the prevention of such harm.

According to **Paragraph 2**, 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.³⁴⁴

In terms of the information that must be provided to the host Parties, subparagraph (a) implies that the entities will conduct an environmental impact assessment³⁴⁵ if needed in order to report on the environmental harm of their activities.³⁴⁶ Subparagraph (b) requires information on relevant legislation and regulations in the State of origin.³⁴⁷ Subparagraphs (c) and (d) provide for sharing of information on commonly used and state-of-the-art industrial techniques to prevent environmental harm.³⁴⁸

Paragraph 3 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 4 calls for the Party of origin to impose its own standards of conduct on its nationals operating outside its territory,³⁴⁹ 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.³⁵⁰ 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.

Paragraph 5 is related to Article 36(f), applying it in specifically in the context of transnational economic activities.

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

345 An EIA may be already required under Article 46 (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.

346 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 "Responsible Care Code" approved by the US Chemical Manufacturers Association in 1988.

347 See Paragraph 44 of the Draft Code of Conduct on Transnational Corporations.

348 *Id.*

349 The direct regulation of a State's nationals abroad is recognised 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.

350 This draws on Principle 14 of the Rio Principles relating to relocation by transnational enterprises.

ARTICLE 40

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 or assist, encourage, or induce others to use, the destruction or modification of the environment as a means of warfare or any other hostile activity.**
- 2. The 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 and objects 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.**
- 6. Parties shall take all necessary measures to provide relief for those displaced by armed conflict, including internally displaced persons, with due regard to environmental obligations.**

Article 40 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.³⁵¹ 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.³⁵² 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.³⁵³ 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.³⁵⁴

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,³⁵⁵ 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.³⁵⁶ 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,³⁵⁷ given the ecological reality of interdependence and interrelation, i.e., the consequences of most environmental 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.

351 This is implied by Principle 24 of the Rio Declaration (1992) and Paragraph 39.6 of Agenda 21. See also UNGA Resolution 47/37 and UNEP, *Protecting the Environment during Armed Conflict: An Inventory and Analysis of International Law* (2009).

352 See e.g., ICRC Guidelines (1994).

353 See the United Nations Claims 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.

354 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)).

355 See Articles 35(3) and 55(1) of Additional Protocol I (1977). See also Principle 24 of the Rio Declaration (1992).

356 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.

357 This is also reflected in Article 3 (Common Concern of Humanity) of the Draft Covenant.

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,³⁵⁸ 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”.³⁵⁹

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.³⁶⁰ This provision is expressed in the disjunctive (“or”) along the lines of ENMOD Convention (1976),³⁶¹ as compared with the conjunctive (“and”) in Additional Protocol I (1977),³⁶² although “long-term” (from Additional Protocol I) is used instead of “long-lasting” (from ENMOD).³⁶³ 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.

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.³⁶⁴

358 Principle 5 of the World Charter for Nature (1982).

359 Articles 35(3) and 55(1).

360 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.

361 Article 1.

362 Article 35(3).

363 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.

364 This, for example, is what the Chemical Weapons Convention (1993) seeks to do. The Convention on Anti-Personnel Land Mines (1997) mentions the environment and requires that each State Party report to the Secretary-General of the United Nations within 180 days of the entry into force of the Convention including information on the status of programmes to destroy mines, 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.”

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.³⁶⁵

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.³⁶⁶

Paragraph 3 is intended to provide protection to sites and installations of particular importance. It is derived from existing international law,³⁶⁷ although is stronger in not providing 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.³⁶⁸

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.³⁶⁹ 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.³⁷⁰

365 See e.g., the institutional and verification scheme afforded by the Chemical Weapons Convention (1993).

366 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.

367 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 applicable in international and non-international armed conflict and shall not be used in violation of those principles and rules”.

368 Also see ICRC Guidelines (1994).

369 See ICRC Guidelines (1994).

370 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.

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.³⁷¹ 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.³⁷² 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, domestic state practice in relation to military activities during peacetime reveals an increasing trend to take environmental considerations into account.³⁷³

National and intergovernmental military forces are increasingly recognizing the developments that have taken place in environmental laws and policies over the past four decades. NATO, for example, has adopted Military Principles and Policies for Environmental Protection,³⁷⁴ noting the increased concern with environmental protection globally.³⁷⁵ Strategic Commands are responsible for integrating these Principles and Policies in agreement with states³⁷⁶ and NATO status-of-forces agreements and other similar arrangements have begun to contain provisions on the protection of the environment. NATO also has Standardization Agreements related to various areas of environmental protection.³⁷⁷ In other action, the UN's International Law Commission in 2013 began assessing how international law can better protect the environment before, during and after armed conflicts. It added the "protection of the environment in relation to armed conflicts" to its three-year programme of work (2013-2016), appointing Ms. Marie G. Jacobsson as Special Rapporteur. In 2012, UNEP released its report *Greening the Blue Helmets: Environment, Natural Resources and UN Peacekeeping Operations Report*.

371 E.g., Article VII (4) of the London Convention (1972).

372 Article 3(3) MARPOL Convention (1973), Article 236 UNCLOS (1982).

373 See e.g., Paragraph 32 of the Helsinki Summit Declaration of the Conference on Security and Cooperation in Europe (1992).

374 NATO Military Principles and Policies for Environmental Protection (MC 0469/1), October 2011.

375 *Ibid.*, at para. 1.

376 *Ibid.*, at para. 9. ILC Report, at para. 46.

377 For more information on the environmental protection policy of NATO, see www.nato.int/cps/en/natolive/topics_80802.htm.

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.³⁷⁸ 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,³⁷⁹ 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 41

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 and, if necessary, negotiate, in good faith with those States at an early stage with a view to arriving at an equitable resolution of the situation;**
- c) grant potentially affected persons in other States access to and due process in administrative and judicial proceedings relating to the proposed activity, without any discrimination, particularly, on the basis of residence or nationality; and**
- d) require prior authorization for the said activity, as well as for any major change or proposed change in the activity.**

Article 41 details the fundamental rule of international environmental law expressed in Article 14(1) (States): that States have an obligation to prevent transboundary environmental harm.³⁸⁰ This provision concerns both the actions required to avoid such harm and those required

378 See e.g., *Trail Smelter* case.

379 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.

380 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)

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 41 requires Parties to take “appropriate measures” to prevent transboundary harm, a requirement that Parties exercise “due diligence” in this regard. This obligation not only attaches to governmental activity, but implies the establishment of a framework for regulating private activities under a Party’s control.³⁸¹ 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 due diligence 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 dependent on the first, which itself is related to several other provisions of the Draft Covenant (e.g., Article 51 (Development and Transfer of Technology), Article 53 (Information and Knowledge), and Article 56 (International Financial Resources)).³⁸² 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.³⁸³ This may require Parties to cooperate with each other or with international organizations to deal with transboundary harm.³⁸⁴ 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.³⁸⁵

The second sentence of Article 41 lists the duties that arise once the risk of transboundary harm is determined to exist.³⁸⁶

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).

381 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).

382 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.

383 See also Article 19 (Emergencies and Disasters) of the Draft Covenant.

384 See e.g., Article 199 of the UNCLOS (1982).

385 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).

386 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.

The first duty, in *subparagraph (a)*, is to undertake an environmental impact assessment (EIA) required under Article 46 (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.³⁸⁷ 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 rights of judicial or administrative review. For this to be a meaningful input, a sufficient flow of information between the relevant States is necessary.³⁸⁸ 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.³⁸⁹ 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 ...³⁹⁰

387 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.

388 See Articles 33(d) (Transboundary Natural Resources), 43 (Information and Knowledge), and 44 (Education, Training and Public Awareness) of the Draft Covenant.

389 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.

390 Article 5 of the Nordic Convention (1974).

Article 41 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.³⁹¹ This is perhaps best accomplished in a regular or institutionalized manner.³⁹² Relevant information is to accompany the notification so as to facilitate the appropriate response to the risk.³⁹³

Consultation is also a fundamental element of conventional international environmental law.³⁹⁴ It may be the first step to subsequent negotiations in order to equitably balance the interests of the affected Parties.³⁹⁵ 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 15(4) (Physical and Legal Persons) and is similar to Article 61 (Non-discrimination) of the Draft Covenant. The difference is that this provision applies before plans for an activity are implemented, while Article 61 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.³⁹⁶

391 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).

392 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).

393 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 43 (Information and Knowledge).

394 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).

395 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).

396 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 52. 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).

ARTICLE 42

PRIOR INFORMED CONSENT

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

Prior informed consent is increasingly required for trade in hazardous substances and products. As early as 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.³⁹⁷

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.

Four 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, the 2000 Biosafety Protocol to the 1992 Convention on Biological Diversity, and the 2010 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the 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)). 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.

397 UNGA Res. 37/137 (1983), Para. 1.

ARTICLE 43

TRANSBOUNDARY NATURAL RESOURCES

Parties shall cooperate in the conservation, use, 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, 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 43 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 waters³⁹⁸ and their living resources.³⁹⁹ Recent treaties have been concluded on the

398 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.

399 See e.g., Articles 63 and 64 of UNCLOS (1982); and generally Rhine Fishing Convention (1885); Whaling

management of air quality⁴⁰⁰ and migratory species.⁴⁰¹ 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 1978.⁴⁰²

At root, Article 43 stems from the general obligation of States to cooperate with each other, contained in Article 14(3) (States).⁴⁰³ It balances the sovereign rights of States over their resources (Article 14(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.⁴⁰⁴

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.⁴⁰⁵ 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.⁴⁰⁶

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 ecosystems⁴⁰⁷ results from a recognition that rules on the component parts of the environment are bound to fail 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

Convention (1946); Antarctic Marine Living Resources Convention (1980); *Behring Seals* arbitration, *Fisheries Jurisdiction* case.

400 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).

401 Convention on Migratory Species (1980), 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).

402 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)).

403 Article 5 of the Convention on Biological Diversity (1992) also echoes this sentiment.

404 See e.g., *Behring Sea Fur Seals and Fisheries Jurisdiction* cases. See also Article 8 of the WCED Legal Principles (1986).

405 See also Article 5 (Equity and Justice) of the Draft Covenant.

406 E.g., Commission for the Conservation of Antarctic Marine Living Resources and International Whaling Commission.

407 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 the Treaties concerning Antarctica, the Convention Concerning the Protection of the Alps (1991) with its Protocols, and the Arctic Environmental Protection Strategy.

of best available technologies for activities that impact on these resources.⁴⁰⁸ One technique in the international protection of ecosystems is the establishment of “specially protected” or “particularly sensitive” areas.⁴⁰⁹

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,⁴¹⁰ the atmosphere,⁴¹¹ outer space,⁴¹² and resources in Antarctica.⁴¹³ 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.⁴¹⁴ 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.⁴¹⁵ Such institutions can, in addition, help prevent international disputes, especially when conflicting uses require accommodation.

Subparagraph (b) focuses on shared species or populations, because cooperation between States in protecting migratory species is vital for their survival.⁴¹⁶ Maintaining such species or populations in a favourable conservation status requires that: (a) exploitation be permitted only on a rational

408 Principle 11 of the World Charter for Nature (1982).

409 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; 2014 The Protocol for the Conservation of Biological Diversity to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea (Ashgabat, 30 May 2014), Article 9 and Annex II.

410 E.g., UNCLOS (1982) and MARPOL Convention (1973).

411 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).

412 E.g., Nuclear Test Ban Treaty (1963), Outer Space Treaty (1967) and the Moon Treaty (1979).

413 Madrid Protocol (1991) to the Antarctic Treaty.

414 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.

415 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.

416 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).

basis taking into account scientific advice;⁴¹⁷ (b) the entire range of the species be regulated,⁴¹⁸ and (c) all ecological factors affecting species and habitat be considered.⁴¹⁹ Thus, compliance with this provision requires, for example, the conservation of wetlands in order to protect migratory waterbirds.⁴²⁰

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.⁴²¹

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 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.

417 E.g., as done by the International Whaling Commission.

418 See Article 2 of the Convention on Migratory Species (1980).

419 See Berne Convention on European Wildlife (1979) and EC Council Directive on the Conservation of Wild Birds (1979).

420 This is required under Article 3 of the Ramsar Convention (1971).

421 Cf. Article 52 (Sharing Benefits of Biotechnology).

ARTICLE 44

ACTION PLANS

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

Article 44 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.⁴²² 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 71). Alternatively it may be decided by each individual Party at its discretion.⁴²³ 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 15(3) (Physical and Legal Persons)). Ideally, this process can help to consolidate a national consensus around implementing the Draft Covenant.⁴²⁴ The plans can also form the basis of each Party's national reports (Article 71 (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, 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 45

SPATIAL PLANNING

- 1. Parties shall establish and implement integrated spatial planning systems, including provisions for infrastructure and town and country planning, with a view to integrating conservation of the environment, including biological diversity and the rights of indigenous peoples and local communities, into social and economic development.**

422 Article 10 of the Desertification Convention (1994) calls for national actions plans and Article 11 calls for sub-regional and regional action plans.

423 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.

424 See also Paragraph 37.5 of Agenda 21 (1992).

2. **In such planning, Parties shall take into account natural systems, in particular aquifers, drainage basins, coastal and marine areas, protected 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 agricultural, grazing, forestry, or other use.**

Article 45 requires Parties to establish physical planning systems as a means of integrating environmental and developmental objectives (see Article 17 (Integrated Policies)). It is based on the assumption that sustainable development requires maintaining the functions and carrying capacities of natural systems.⁴²⁵ As such, it calls for an integrated approach to land-use.⁴²⁶

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 25 (Ecosystem Services), natural systems constituting identifiable ecological units must be viewed as single units for purposes of physical planning, irrespective of administrative boundaries within a country.⁴²⁷ 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 planning units because events upstream have downstream effects.⁴²⁸ 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”.⁴²⁹

425 See e.g., Principles 7 and 16 of the World Charter for Nature (1982).

426 See Chapter 10 of Agenda 21 (1992).

427 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 43 of this Draft Covenant.

428 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.

429 See also Principles 13 and 14 of the Stockholm Declaration (1972) and Principle 9 of the World Charter for Nature (1982).

ARTICLE 46

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 trans-boundary effects;**
 - b) **reasonable alternatives including not conducting the proposed activity; and**
 - c) **measures to avert, minimize or offset the potential adverse effects.**
3. **Parties shall ensure the right of public awareness and participation. The procedures shall be open, transparent, effective and accessible, to concerned States, international organizations, associations and individuals. Parties shall 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.**

Environmental Impact Assessments (EIAs) are a feature of modern domestic⁴³⁰ and international⁴³¹ environmental law. First established in the United States under the National Environmental Policy Act, EIAs are universally recognised as a fundamentally important process

430 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.

431 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.

in the achievement of two results: (1) to inform decision-makers of the environmental consequences of their decisions⁴³² and (2) to integrate environmental matters into other spheres of decision-making.⁴³³ The latter purpose recalls the obligation of integrating environment and development (Article 13 (Integrating Environment and Development)). 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 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.⁴³⁴ 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 52 (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 States⁴³⁵ and as written into agreements.⁴³⁶ As implementation of some of the EIA requirements demands significant resources, Article 56 (International Financial Resources) on transferring financial resources is relevant.⁴³⁷ 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 17(3) (Integrated Policies)).⁴³⁸

432 See e.g., UNEP Goals and Principles of Environmental Impact Assessment (1987).

433 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.

434 E.g., Paragraph 8.4(f) of Agenda 21 (1992).

435 E.g., *Corfu Channel* case.

436 E.g., Article 12(1) Protocol for the Protection of the Caspian Sea against Pollution from Land-based Sources and Activities to the Framework Convention on the Protection of the Marine Environment of the Caspian Sea (Moscow, 12 Dec. 2012).

437 See also Article 202(c) of UNCLOS (1982).

438 Some international organizations already have EIA policies, see e.g., World Bank Operational Directive 4.00 (1989).

Article 46 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.⁴³⁹

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,⁴⁴⁰ after finding acceptance in some regional instruments.⁴⁴¹ Although “significant” is not defined, it involves consideration of both context and intensity,⁴⁴² 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,⁴⁴³ 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.⁴⁴⁴ 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”.⁴⁴⁵ A further approach is to create a presumption of significant environmental impacts for activities that cross a monetary threshold.⁴⁴⁶ Finally, it may be appropriate, in certain cases, to require EIAs when there is a change in ownership of an enterprise (activity).⁴⁴⁷

439 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.

440 Principle 17 of the Rio Declaration (1992).

441 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).

442 See e.g., regulations implementing the National Environmental Policy Act, (USA) 40 CFR § 1508.27 (1992).

443 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.

444 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”.

445 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.

446 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)).

447 See e.g., New Jersey Environmental Cleanup Responsibility Act (USA), which requires the filing of a cleanup

Whichever approach, or combination of approaches, is adopted, EIAs should be conducted at an early stage of planning.⁴⁴⁸

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 during the EIA process.⁴⁴⁹ “Effects” includes all significant impacts on the environment as a whole, as well as its components.⁴⁵⁰

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.⁴⁵¹ The focus should be on the connectedness of the impacts, rather than of the activities,⁴⁵² although it should include impacts from all related activities, even where individually the impacts would not be significant.⁴⁵³ 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.⁴⁵⁴ “Long-distance” can include transboundary⁴⁵⁵ effects, but can also include internal ones.

Subparagraph (b) requires Parties to consider alternatives to the activity in question. This means all reasonable alternatives,⁴⁵⁶ including the option of not conducting the activity.⁴⁵⁷ 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.

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.

448 See e.g., Principle 1 of the UNEP Goals and Principles of Environmental Impact Assessment (1987).

449 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.

450 Guidance is available from Article I(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.

451 This is the scope of the term provided for in the Regulations of the California Environmental Quality Act (USA).

452 As the US 5th Circuit Court did in *Fritiofson v. Alexander* (1985).

453 See e.g., *Kings County Farm Bureau v. City of Hanford* (USA).

454 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).

455 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.

456 The Espoo Convention (1991) identifies locational or technological variations as possible reasonable alternatives (Appendix II).

457 This is an expressed alternative to consider in the Espoo Convention (1991) (Appendix II).

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 is left to the individual Party. The provision requires that those concerned have access to the EIA procedure.⁴⁵⁸ 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.⁴⁵⁹ 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.⁴⁶⁰ 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.⁴⁶¹ The results of any evaluation should be considered at the decision-making stage and any mitigation measures identified should be implemented.

ARTICLE 47

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 re-**

458 The inclusion of States and international organizations in this list is intended to be for cases of potential transboundary environmental harm (see Article 41 (Transboundary Environmental Effects)).

459 Article 6(1) of the Espoo Convention (1991) requires that “due account” be taken of the EIA.

460 This provision is modelled on Article 7 and Appendix V of the Espoo Convention (1991).

461 This notion is a new one, but which has been recognised in international environmental law, e.g., Article 14(1) (b) of the Convention on Biological Diversity (1992). Note also that the EC has committed itself to EIA of its own plans and programmes (EC Fifth Environmental Action Programme *Towards Sustainability* (1993)), which has manifested itself, 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.

sources, 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 47 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,⁴⁶² *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. To be noted is that, as far as possible, international standards should be based on achieving a higher level of environmental protection.⁴⁶³ 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 38(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.⁴⁶⁴ Standards should be both preventive and remedial.

ARTICLE 48

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.**

462 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).

463 See e.g., Articles 100(a)(3) and 130(r)(2) of the EC Treaty as amended by the Maastricht Treaty on European Union.

464 Cf. Principle 11 of the Rio Declaration (1992).

2. **To this end and as appropriate, the 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 47 (Environmental Standards and Controls) as well as for their effective implementation. The primary obligation is to develop and strengthen research on the national level.⁴⁶⁵ 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 49

CONTINGENCY AND EMERGENCY PLANNING

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

This provision is closely related to Article 19 (Emergencies and Disasters). 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 19 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 19.

⁴⁶⁵ For a similar requirement in the context of waste management, see Article 19 of the Cairo Guidelines on Hazardous Wastes (1987).

ARTICLE 50

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 in 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 and ecosystems.**

To facilitate the monitoring required in Article 48 (Monitoring of Environmental Quality), Article 50 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.⁴⁶⁶ Article 50 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 51 (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.⁴⁶⁷

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

466 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).

467 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).

research techniques, data, and methodologies.⁴⁶⁸ 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.⁴⁶⁹ Secondly, *subparagraph (b)* sets forth the requirement that the exchange of general information must be regular, which suggests an ongoing and systematic process.⁴⁷⁰ “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.⁴⁷¹ *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.⁴⁷² Although Parties are left with the discretion as to the 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.⁴⁷³

ARTICLE 51

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 51 looks to the development and transfer of technology as a means to achieve sustainable development.⁴⁷⁴ 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,

468 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 48(2) (Monitoring of Environmental Quality) of the Draft Covenant.

469 See Article 200 of UNCLOS (1982).

470 Exchange of data is related to Article 53 (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).

471 See e.g., Article 18(3) of the Convention on Biological Diversity (1992), which establishes a clearinghouse mechanism to promote and facilitate technical and scientific cooperation.

472 See Article 4(1)(h) of the Climate Change Convention (1992).

473 Accordingly, this provision also relates to others in the Draft Covenant, such as Articles 30 (Pollution), and 43 (Transboundary Natural Resources).

474 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. Article 17 of the Desertification Convention (1994).

goods, services, equipment, and managerial procedures.⁴⁷⁵ 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.⁴⁷⁶ 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.⁴⁷⁷ Information clearinghouses can help Parties identify what their particular technological needs are and how they can be accommodated.⁴⁷⁸ In addition, technical assistance should take place as appropriate in respect of assessing what each Party needs, what is “environmentally sound”, and how specific technologies can be used.⁴⁷⁹ 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.⁴⁸⁰

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.⁴⁸¹ 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.⁴⁸² Where intellectual property rights exist, Parties should explore the use of economic incentives (see Article 17 (Integrated Policies)) to encourage appropriate transfers.⁴⁸³ There are, however, many relevant and useful technologies already in the public domain, and therefore free for Parties to directly transfer.

ARTICLE 52

SHARING BENEFITS OF BIOTECHNOLOGY

- 1. Parties shall provide for the fair and equitable sharing of benefits arising out of the use of genetic resources, including through biotechnology with States providing access to such genetic resources on mutually agreed terms.**
- 2. Parties shall fairly and equitably share the benefits arising from genetic resources located in areas beyond national jurisdiction.**

475 Paragraphs 34.2 and 34.3 of Agenda 21 (1992).

476 See Article 50 (Scientific and Technical Cooperation). See also Article 18(5) of the Convention on Biological Diversity (1992).

477 See Paragraph 34.15 of Agenda 21 (1992).

478 See Paragraphs 34.16 and 34.17 of Agenda 21 (1992).

479 See Paragraphs 34.22-34.24 and 34.26 of Agenda 21 (1992)

480 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.

481 See Article 16(2) of the Convention on Biological Diversity (1992) and Paragraph 34.4 of Agenda 21 (1992). See also Article 56 (1)(c) (International Financial Resources) of the Draft Covenant.

482 See generally the Uruguay Round TRIPs Agreement (1993).

483 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).

Article 52 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. As such, it follows the Nagoya Protocol on Access to Genetic Resources and their Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity (Nagoya, 29 October 2010). The Protocol also provides guidance in providing an Annex with an illustrative list of monetary and non-monetary benefits.

“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,⁴⁸⁴ participation in biotechnological research activities based on the genetic resources,⁴⁸⁵ and priority access to the results and benefits arising from biotechnological use of the genetic resources.⁴⁸⁶

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 Contracting 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.

International instruments and studies supporting this provision include the 2010 *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (ABS) to the Convention on Biological Diversity* and in the 2013 *WIPO Intellectual Property Guidelines for Access to Genetic Resources and Equitable Sharing of the Benefits arising from their Utilization* was prepared. IUCN released in 2014 *Guidelines for Policy and Legislation on integration of biodiversity aspects in extractive industry activities* and “*Biodiversity management in the cement and aggregates sector: regulatory tools*.”. In 2010 the OECD released a publication *Paying for Biodiversity: Enhancing the Cost-Effectiveness of Payments for Ecosystem Services (PES)*.

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

484 See Article 16(3) of the Convention on Biological Diversity (1992).

485 See Article 19(1) of the Convention on Biological Diversity (1992).

486 See Article 19(2) of the Convention on Biological Diversity (1992).

in which Parties can comply with their obligations to transfer international financial resources (Article 56 (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 53

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 53 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 15(3) (Physical and Legal Persons). The requirement that environmental information be exchanged between States is found in several treaties⁴⁸⁷ and is prominent in Agenda 21.⁴⁸⁸ The information exchanged will, in most cases, be that to which individuals have access under Article 15(3).

The wording in *Paragraph 1* is deliberately general and is related to the obligation pertaining to cooperation between Parties.⁴⁸⁹ 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 15(4) (Physical and Legal Persons) and Article 62 (Non-Discrimination)).⁴⁹⁰ 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.

487 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).

488 See especially Chapter 34 of Agenda 21 (1992).

489 These include Article 19 (Emergencies and Disasters), Article 32(5) (Waste), Part VII (Transboundary Issues), in particular, with respect to shared natural resources, Article 50(2)(b) (Scientific and Technical Cooperation), Article 51 (Development and Transfer of Technology) and Article 54 (Education, Training and Public Awareness).

490 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).

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.⁴⁹¹

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.⁴⁹² “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.⁴⁹³ States may wish to explore the possibility of establishing networks in the form of clearinghouses, as recommended by Agenda 21.⁴⁹⁴ 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.⁴⁹⁵ 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.⁴⁹⁶

Paragraph 2 is based on the premise that indigenous and local peoples have a proprietary or quasi-proprietary right to their knowledge.⁴⁹⁷ It echoes the thrust of Article 8(j) of the Convention on Biological Diversity (1992) and closely follows the Nagoya Protocol to that treaty. Indigenous knowledge has tended to be exploited by outsiders without due respect for the communities imparting the knowledge. This provision seeks to provide for control by indigenous peoples of their traditional knowledge, using the technique of requiring their prior informed consent as a condition for access to it.⁴⁹⁸ 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

491 Article 9(2) of the North-East Atlantic Convention (1992).

492 This is the wording of Article 17 of the Biodiversity Convention (1992).

493 E.g., as provided for in Article 200 of UNCLOS (1982).

494 Paragraph 34.15 *et seq.* of Agenda 21 (1992).

495 As required, for example, by Article 4 of the Vienna Convention on the Ozone Layer (1985).

496 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.

497 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).

498 This is similar to the requirement in Article 8(j) of the Convention on Biological Diversity (1992).

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...”.⁴⁹⁹

ARTICLE 54

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 54 seeks to enhance public knowledge of environmental matters, recognising 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 15(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.⁵⁰⁰ Similar provisions are common in environmental treaties⁵⁰¹ and detailed recommendations are made in Chapter 36 of Agenda 21. Other international instruments also refer to environmental education.⁵⁰² Both national and international efforts to increase this knowledge are contemplated here. *Paragraph 1* requires States to take specific measures 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

499 Article 8(j) of the Convention on Biological Diversity (1992).

500 Article 29(1)(e) of the Convention on the Rights of the Child (1989).

501 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.

502 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.”

the capacity of developing countries.⁵⁰³ Herein, the specific need for educational institutions and dissemination of knowledge about the environment and natural resources is stressed.

Paragraph 2 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 recognises the special roles these groups have in the achievement of sustainable development.⁵⁰⁴

Paragraph 2 lists the 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 3 calls on States to cooperate with a view to enhancing environmental knowledge throughout the world.⁵⁰⁵ Discretion is left to each Party to determine the most effective manner of cooperation, whether directly or through competent international or national organizations.⁵⁰⁶

ARTICLE 55

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 and partnerships for sustainable development.**

503 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. Of crucial significance is also Article 56 (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.

504 See Chapter 26 of Agenda 21 (1992).

505 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).

506 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”.

Article 55 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 56 (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.⁵⁰⁷ The precise amounts will vary from country to country, but the preparation of national action plans (Article 44 (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 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.⁵⁰⁸ Examples include eco-labelling⁵⁰⁹ 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.⁵¹⁰

Paragraph 2 calls for innovation in achieving the goal laid out in Paragraph 1. “Fees and taxes” may be singled out for special emphasis,⁵¹¹ although all types of “economic instruments” should be considered.⁵¹² 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.⁵¹³ Since budgetary considerations are closely linked with overall governmental policy-making, they should include the reallocation of certain resources, as suggested.⁵¹⁴

507 See e.g., Act No. LXXXII of 1992 creating a Central Environment Fund (Hungary).

508 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.

509 E.g., EC Council Regulation EEC/880/92 on a Community Eco-label Award Scheme (1992).

510 E.g., grants for non-beneficial land-clearance and agricultural and fisheries subsidies.

511 See e.g., Law on Natural Resource Taxes (Latvia) and Law on Pollution Tax (Lithuania).

512 E.g., tradeable pollution allowances (e.g. as provided for under the US Clean Air Act, as amended).

513 See also Article 13(2)(b) (Integrating Environment and Development).

514 See Paragraph 33.16(e) of Agenda 21 (1992).

ARTICLE 56

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 augment their aid programmes to reach the United Nations General Assembly target of 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 have the potential for significant adverse impact on the environment shall, in cooperation with the recipient State, ensure that an environmental impact assessment is conducted. The resources provided shall include those necessary for the recipient State to carry out such assessment.**

Article 56 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.⁵¹⁵

⁵¹⁵ 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

In *Transforming Our World: The 2030 Agenda for Global Action* (2015), States agree that Official Development Assistance remains important in supporting the sustainable development needs of countries and regions, in particular African countries, least developed countries, landlocked developing countries and small island developing states (para. 34).

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 discernible, 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 21.⁵¹⁶ 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.⁵¹⁷

Subparagraph (a) should be read in conjunction with Article 11 (Right to Development) and Article 17 (Integrated Policies). **Subparagraph (b)** 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”.⁵¹⁸ Any agreed mechanism should be based on information received from the Depository regarding each Party’s experience (Article 79) and should be regularly reviewed by the Review Conference (Article 71). **Subparagraph (c)** should be read in conjunction with Article 51 (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), 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.⁵¹⁹

financial resources and technology transfer). 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”.

516 See Paragraph 12 of the Kuala Lumpur Declaration (1992) and Paragraph 33.14(a)(iii) of Agenda 21.

517 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.

518 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 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.

519 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).

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.⁵²⁰ 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.⁵²¹ 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”.⁵²² 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 46 (Environmental Impact Assessment), requiring donor Parties to conduct an EIA with respect to activities arising out of their development assistance.⁵²³ 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 provisions of Article 46.⁵²⁴ 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.⁵²⁵

520 See Paragraph 33.13 and the Tokyo Declaration on Financing Global Environment and Development (1992).

521 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).

522 See e.g., Article 20(2)(d) of the Desertification Convention (1994) and Paragraph 33.16(a) of Agenda 21 (1992).

523 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, read in conjunction with Article 11(5) (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.

524 See also Article 37 of the Lomé IV Convention (1989) and World Bank Operational Directive 4.00, Annex A: Environmental Impact Assessment (1989).

525 See also Article 46(5) (Environmental Impact Assessment).

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.⁵²⁶ 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.⁵²⁷

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.⁵²⁸ States have begun to adopt new instruments on responsibility and liability, fulfilling the commitments made earlier.⁵²⁹

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,⁵³⁰ holding liable the “polluter” or the “operator

526 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).

527 *Cf.* Article 35(1) of the Statute of the International Court of Justice (1945).

528 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 Central African Marine Environment Convention (1981). See also Principle 13 of the Rio Declaration (1992).

529 *Cf.* Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety (2010); Warsaw International Mechanisms for Loss and Damage associated with Climate Change Impacts (UNFCCC 2013); CBD Secretariat, *Review of Issues, Instruments and Practices Relevant to Liability and Redress for Damage Resulting from Transboundary Movements of Living Modified Organisms* (2012).

530 *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 Movement of Hazardous Wastes and their Disposal (1999); Articles 6 and 7, *Liability for Carriage of Noxious Elements by Sea* (1996).

or owner of a facility”,⁵³¹ whereas others are based purely on State responsibility.⁵³² 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.⁵³³ 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 significant 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 6 is important and there are prevention obligations regarding different situations, as in Article 39 on economic activities and Article 40 on military and hostile activities. Also, Article 46 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 in 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).

531 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).

532 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).

533 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.

Part IX is focused on environmental *damage*⁵³⁴, 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 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 article, 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.

ARTICLE 57

STATE RESPONSIBILITY

States Parties are responsible under international law for an internationally wrongful act in breach of an international obligation and the obligations under 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; we are merely requiring States 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

534 The ILC uses “harm” relating to possible future damage, particularly in the field of prevention.

entity. For example, if the State of origin allows a hazardous or noxious 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 State direct *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 transboundary 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 private liable party or his insurance cannot cover the whole amount of compensation, or make *ex-gratia* payments⁵³⁵ 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.⁵³⁶ 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 58

HARMFUL ACTIVITIES

States of origin 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, including 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,⁵³⁷ but

535 As in the nuclear and oil industries.

536 As said by Arbitrator Huber in the Island of Palmas award.

537 These were the words of the Commission when it decided to leave the issue out of the topic: "Attention should

as with hazardous activities, the State of origin is obliged by this Covenant to notify, consult and eventually negotiate with the affected State or States a régime to regulate the activity in question or to cease it altogether. The system of solution of controversies incorporated to the Covenant would remedy the possible disagreement of the parties with respect, for instance, to the nature of the activity, i.e. whether the activity in question is a noxious or a hazardous one, or any other disagreement the Parties may have to its respect. 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: both Lammers and the Expert Group of the World Commission of Environment and Development stated that if an activity “causing harm that is substantial but far less than the overall technical and socioeconomic cost or loss of benefits involved in preventing or reducing such interference” was planned, the source State must “enter into negotiations with the affected State on the equitable conditions, both technical and financial, under which the activity could be carried out”.⁵³⁸

Prevention obligations of the State of origin like notification, information and consultation with likely affected States are common for both hazardous and noxious activities because the planned activity causes or may cause transboundary environmental harm. The Commentary may include the above quotation from the Brundtland Group as a possible guideline for the Parties or the arbitrator, bearing always in mind that some forms of damage to the environment may be placed above the consent of the concerned States.⁵³⁹

As regards existing noxious activities which cannot be eradicated 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 the matter for collective action and monitoring, so that their harmful influence is reduced to a limit that is formed by the highest state of the art in technology, on the one hand, and economic feasibility, on the other.⁵⁴⁰

Cessation applies, in general international law as codified by the ILC in 2001, to continuous acts in breach of international obligations, in this case to continuous acts causing transboundary environmental damage.

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.

538 *Op.cit.*, p. 85, Art.12. (Environmental Protection and Sustainable Development, London, Dordrecht, Boston, 1986)

539 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 with an imperative norm of international law.

540 For instance, States should oblige motor car owners in their jurisdictions to incorporate to their cars the best mechanisms to eliminate or reduce exhaust wastes, making allowance to the particular conditions of developing States.

There is no single a definition of “activity nor of noxious activities”. Some activities, like heating of homes or motoring, may cause transboundary damage but are not prohibited. In other circumstances, particular acts of an activity may be noxious but the activity may change and lose its noxious nature if such acts are suppressed or replaced by others.⁵⁴¹

As concerns Article 62, continuous *acts* causing transboundary harm should, in our view, cease by application of international law as declared by Article 30 of the ILC 2001 articles. If transboundary environmental damage may be ceased by the incorporation of some measures to the processes or mechanisms of those activities, the activity may be continued.⁵⁴² If the continuous act causing the damage is inseparable from the activity, then the latter should be ceased.

ARTICLE 59

LIABILITY

1. **States Parties shall take the necessary measures to ensure that prompt and adequate compensation is available to victims of significant transboundary environmental damage caused by hazardous activities located within their territory or otherwise conducted 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) **the obligation to provide compensation for personal damage and damage to property including compensation of economic loss;**
 - c) **the obligation to provide redress for damage to the environment by taking measures of mitigation of damage and restoration or reinstatement of the affected environment or covering the costs of such measures incurred by the victim, the competent authority, or (*Rehbinder*) a public trustee; and**
 - d) **any conditions, limitations or exceptions to such liability shall be consistent with the principle of prompt and adequate redress to victims.**

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 summarizes 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

541 *Id.*

542 It may be presumed that after a certain time of causing continuous harm to the affected State, the Government of the State of origin could not but *know* that damage will continue as long as the activity goes on without modification, and consequently that it is *knowingly* using or permitting the use of its territory against the rights of other State or States.

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 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.”⁵⁴³

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.⁵⁴⁴ 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 and those which *may* cause damage through incidents due to their inherent risk.⁵⁴⁵ Both are hazardous. 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.

Specific liability regimes have been adopted including in the area of biosafety. The Supplementary Protocol to the Cartagena Protocol on Biosafety to the Convention on Biological Diversity (Nagoya, 15 October 2010) aims to contribute to the conservation and sustainable use of biological diversity by providing international rules and procedures in the field of liability and redress relating to living modified organisms. The focus is on prevention and mitigation, as well as restoration of biological diversity to the condition that existed before the damage occurred. Parties are to provide in domestic law for rules and procedures that address damage through civil liability rules and procedures.

543 Doc. A/CN.4.L.554/Add.1 p. 33.

544 See Principle 4 paragraphs 3,4 and 5 of the 2004 ILC Articles.

545 There seems to be a third category, namely activities which are prohibited. Noxious activities are not necessarily prohibited: an international act setting forth such prohibition seems necessary. Nuclear tests were 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, little difference there seems to be between noxious activities prohibited or non-prohibited.

ARTICLE 60

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.

The cost of response measures is considered a part of the damage to be compensated.⁵⁴⁶ According to the ILC Commentary, they are “recent concepts”.⁵⁴⁷ 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”⁵⁴⁸

The word “reasonable” indicates that there should be no disproportion between the costs of such measures and the usefulness resulting from them.⁵⁴⁹ “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.”⁵⁵⁰

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.⁵⁵¹

546 See, e.g. Article 11 of the Protocol concerning Regional Preparedness, Response and Cooperation in combating Oil Pollution Incidents to the Framework Convention on the Protection of the Marine Environment of the Caspian Sea (Aktau, 12 August, 2011).

547 See *Yearbook of the International Law Commission, 2006, at p.130.*

548 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.

549 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).

550 Doc.A/CN.4.L.554/Add.1 cit. p. 33.

551 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

ARTICLE 61

INTERNATIONAL AND DOMESTIC REMEDIES

- 1. States Parties shall ensure the existence and availability of domestic judicial and administrative bodies to provide prompt, adequate and effective remedies and redress for claims of environmental damage or violations of environmental rights.**
- 2. States Parties shall not impede recourse to available international procedures.**

The right to a remedy has two aspects: access to justice, on the one hand, and substantive redress, on the other hand. The provisions of environmental agreements and this Article mirror many human rights texts in requiring, first, 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), and, second, redress for harm. 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)⁵⁵² 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 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).

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.

552 32 I.L.M. 1101 (1993).

The Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment (Lugano, June 26, 1993).⁵⁵³ 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).

ARTICLE 62

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.⁵⁵⁴ 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.

553 EMuT, 993:19.

554 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).

ARTICLE 63

OFFENCES

The 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.

The utility of achieving environmental protection through the use of criminal or administrative sanctions is increasingly recognized. Most states now have enacted criminal laws related to environmental offenses and there are regional agreements on this point. The European Convention on Protection of the Environment through Criminal Law, adopted 4 November 1998 (CETS 172), provides one source for this provision. The Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa also contains provisions regarding criminal law. The Convention prohibits the import of all hazardous wastes into Africa from non-Contracting Parties and makes such import illegal and a criminal offense (Article 4(1)).

ARTICLE 64

CIRCUMSTANCES PRECLUDING WRONGFULNESS

1. **The wrongful character 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 or arising out of their own risk sphere, 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 or arising out of the risk sphere of that State Party.**

Article 64 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. 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 65

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 40 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 65 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.⁵⁵⁵ The one departure from precedent is to qualify the exemption for armed conflicts by requiring compliance with Article 40 (Military and Hostile Activities), thereby establishing responsibility and liability for breaches of that provision which cause environmental harm.

ARTICLE 66

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 including the national rules regarding conflicts of laws in all matters of substance or procedure not specifically dealt with in these articles.

Existing conventions differ in the choice of jurisdiction they offer the injured party.⁵⁵⁶

⁵⁵⁵ 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).

⁵⁵⁶ 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 60 of the Draft Covenant); and (d) where the carrier has his habitual residence. Article

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.⁵⁵⁷ 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.

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 67

OTHER TREATIES

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

Article 67 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

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.

557 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.

minimum standards which underpins existing law. Thus, Article 67 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.⁵⁵⁸ 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.⁵⁵⁹ See Article 68 on Stricter Measures.

Implicit in Article 67 is the obligation to implement other treaties, a specific application of *pacta sunt servanda*, a fundamental principle of international law.⁵⁶⁰

ARTICLE 68

STRICTER MEASURES

- 1. The provisions of this Covenant shall not affect the right of Parties individually or jointly to adopt and implement stricter measures for the protection of the environment 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 68 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

558 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).

559 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.

560 See Article 34 of the Straddling Stocks Agreement (1995): “States Parties shall fulfil in good faith the 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.”

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.⁵⁶¹ 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 38(1) (Trade and Environment) of the Draft Covenant, these provisions should not be for economic protection.⁵⁶²

ARTICLE 69

AREAS BEYOND NATIONAL JURISDICTION

In areas beyond 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 69 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 14(1) (States))⁵⁶³ 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 resources⁵⁶⁴ and pollution⁵⁶⁵ of the high seas. The norms governing outer space are not as detailed, although elements of a precautionary regime exist.⁵⁶⁶

561 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.

562 *Cf.* Article 130(t) of the EC Treaty (1957), as amended, 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 EC secondary legislation; EC Council Directive EEC/440/75 on Quality of Surface Water; EC Council Directive EEC/360/84 on Air Pollution from Industrial Plants and EC Council Directive EEC/278/86 on the Protection of the Soil.

563 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).

564 *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.

565 There are international rules and standards based on 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 Convention (1969) and Fund Convention (1971); for radioactive pollution from nuclear tests, Nuclear Test Ban Treaty (1963) (*Cf. the Nuclear Tests* case).

566 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).

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 nationals⁵⁶⁷ and vessels flying their flags.⁵⁶⁸

ARTICLE 70

RELATIONS WITH NON-PARTIES

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

Article 70 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 70 does not purport to impose duties on third States, in accordance with Article 34 of the Vienna Convention on the Law of Treaties (1969),⁵⁶⁹ 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 56 (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.⁵⁷⁰

567 But this is only in certain cases, particularly in relation to criminal law.

568 Cf. Article 4(b) of the Convention on Biological Diversity (1992). Also note the requirement under Article 40(5) (Military and other Hostile Activities) that all military personnel, aircraft, vessels and installations are also subject to rules of environmental protection.

569 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).

570 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 71

REPORTING

Parties shall 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 71 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 72 (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.⁵⁷¹ It will also assist Parties in deciding upon their international transfers of financial resources (Article 56 (International Financial Resources)). For these reasons, national reporting has become a standard feature of modern international environmental agreements.⁵⁷²

The content of the reports might be based on the national action plans to be drawn up by every Party (Article 44 (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 48 (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 71).

ARTICLE 72

COMPLIANCE AND DISPUTE AVOIDANCE

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.

571 See Article 53 (Information and Knowledge) of the Draft Covenant. Article 82(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 82(2)(b) will be based on the national reports.

572 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 Climate Change Convention (1992). Article 9 of the Danube Convention (1994).

Article 72 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.⁵⁷³ 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.⁵⁷⁴ These mechanisms avoid the need for recourse to remedies available under express dispute resolution regimes or under general international law.⁵⁷⁵ The Draft Covenant seeks to promote this trend, echoing Agenda 21.⁵⁷⁶

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.⁵⁷⁷ 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. In some recent agreements, however, states have been encouraged to exchange environmental data and information regularly and to assess transboundary environmental impacts of planned activities.⁵⁷⁸

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”⁵⁷⁹ 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

573 E.g., Montreal Protocol (1987); Climate Change Convention (1992); 1985 Helsinki Protocol on the Reduction of Sulphur Emissions to the LRTAP Convention; and 1991 Geneva Protocol concerning the Control of Emissions of Volatile Organic Compounds to the LRTAP Convention. This is based, in part, on the experience of international human rights law.

574 E.g., the establishment of an inspection procedure whose reports are widely available under 1991 Madrid Protocol on Environmental Protection to the Antarctic Treaty; Article 14 provides an additional means for facilitating compliance.

575 See e.g., Article 60 of the Vienna Convention on the Law of Treaties (1969).

576 See Paragraphs 39.8 - 39.10.

577 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 (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.”)

578 E.g. the Minamata Convention on Mercury (2013), the Nagoya – Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety of 2010, and the Akuat Protocol of 2011.

579 E.g., the review process of the UN Human Rights Committee.

are often progressive or interrelated.⁵⁸⁰ 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 in this regard as a model, but the Montreal Protocol (1987) did not itself establish a compliance mechanism.⁵⁸¹ It was created later.

Compliance mechanisms are linked to requirements relating to exchanges and dissemination of information.⁵⁸² 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 71 (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.

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 74).

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.⁵⁸³ Thus, it is better to prevent such damage from occurring than to seek formal dispute resolution after the fact. Article 72, accordingly, would have Parties act before a situation escalates into a formal dispute. Some examples of this might include provision of financial resources, technical

580 Convention on Biological Diversity (1992) and Climate Change Convention (1992).

581 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.

In this case, 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.

582 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 15 (Prevention and Response to Emergencies), 33 (Transboundary Environmental Effects), 34 (Transboundary Natural Resources), 39 (Monitoring of Environmental Quality), and 43 (Information and Knowledge).

583 See e.g., *Chorzów Factory* case (Jurisdiction). See also *Chorzów Factory* case (*Indemnity*).

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.⁵⁸⁴ 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.⁵⁸⁵

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.⁵⁸⁶ 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,⁵⁸⁷ as can the technical bodies established under some environmental treaties.⁵⁸⁸ Similarly, the verification procedures established under some treaties to investigate alleged non-compliance, whether through a secretariat⁵⁸⁹ or through specialized arrangements,⁵⁹⁰ 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.⁵⁹¹

ARTICLE 73

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, 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**

584 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 46) 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)).

585 See e.g., Oil Pollution Civil Liability Convention (1969); Canada-US Agreement on Fisheries Enforcement (1990).

586 Article 3(7) and Appendix IV.

587 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).

588 E.g., Article 25 of the Convention on Biological Diversity (1992) creates a Subsidiary Body on Scientific, Technical and Technological Advice.

589 E.g., as provided for in Article 19 of the Bamako Convention (1991).

590 E.g., as those established under the Verification Annex to the Chemical Weapons Convention (1993).

591 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.

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 73 establishes a non-exhaustive list of venues available to Parties seeking to peacefully settle disputes concerning the interpretation or application of the Draft Covenant.⁵⁹² 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.⁵⁹³ The International Court of Justice has issued a series of judgments on environmental law issues that have contributed to developing the law and suggesting methods for avoiding and settling international environmental disputes.⁵⁹⁴

Paragraph 1 follows closely the language of other global environmental treaties.⁵⁹⁵ 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”.⁵⁹⁶ 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.⁵⁹⁷ This provision does not apply to controversies among or involving non-State actors, unless taken up by Parties.⁵⁹⁸ 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

592 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.

593 See Article 60 of the Vienna Convention on the Law of Treaties (1969) on the doctrine of material breach.

594 See, e.g. *Pulp Mills on the River Uruguay (Arg. v. Urug.)*(2010); *Whaling in the Antarctic (Aust. v. Japan)*(2014). Pending disputes are *Certain Activities carried out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)* and *Construction of a Road in Costa Rica along the San Juan River (Nic. v. Costa Rica)*. The case of *Arial Spraying (Ecuador v. Colom.)* was settled by the parties before judgment.

595 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.

596 See e.g., *Southwest Africa (preliminary Objections)* case; *Mavrommatis Palestine Concessions (Jurisdiction)* case; *Cameroons* case; *Peace Treaties* case; *Nuclear Tests* case; *Headquarters* case.

597 See, *ICAO Council* case.

598 See *Mavrommatis Palestine Concessions (Jurisdiction)*, (*Greece v. United Kingdom*).

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".⁵⁹⁹ 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 recourse to national judicial bodies. All parties to the dispute must treat as binding any ruling of such a body.

ARTICLE 74

REVIEW CONFERENCE

The Secretary-General of the United Nations shall convene every five years a conference of the Parties to the Covenant 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 74 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.

⁵⁹⁹ Article 42 of the ILC Articles on State Responsibility.

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 75 (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 72).

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 74 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,⁶⁰⁰ 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.⁶⁰¹ 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 recognises 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.⁶⁰²

600 E.g., Article 7(6) of the Climate Change Convention (1992).

601 E.g., this occurred recently for the European Union at the first meeting of the Parties to the Basel Convention (1989).

602 E.g., Article 23 of the Convention on Biological Diversity (1992) and Article 15 Basel Convention (1989).

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 75

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 the 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 the Parties to this Covenant who 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”.⁶⁰³ 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 74), whilst the precedents provide for meetings of their Parties at regular intervals, often once a year.⁶⁰⁴ The procedure for the adoption

603 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).

604 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).

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,⁶⁰⁵ as it does to the case of becoming Party to the Covenant after an amendment is in force.⁶⁰⁶

ARTICLE 76

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.⁶⁰⁷ 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.⁶⁰⁸

The definition in *Paragraph 2* of “regional economic integration organizations” echoes the language of other environmental treaties.⁶⁰⁹ 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 77

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.**

605 See Article 40(4) of the Vienna Convention on the Law of Treaties (1969).

606 See Article 40(5) of the Vienna Convention on the Law of Treaties (1969).

607 Article 12 of the Vienna Convention on the Law of Treaties (1969) lays out specific conditions for signature to be binding.

608 See Article 18 of the Vienna Convention on the Law of Treaties (1969).

609 E.g., Article 1(6) of the Vienna Convention on the Ozone Layer (1985).

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.**

The normal practice in environmental treaties⁶¹⁰ is to require an expression of consent to be bound in the form of ratification, acceptance or approval (*Paragraph 1*).⁶¹¹ 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, recognising 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,⁶¹² the extent of their competence with regard to the Draft Covenant.

ARTICLE 78

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.**

Provision for accession⁶¹³ 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.⁶¹⁴

610 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).

611 This is provided for under Article 14 of the Vienna Convention on the Law of Treaties (1969).

612 E.g., Annex IX, Article 2, of UNCLOS (1982).

613 This is permitted under Article 15 of the Vienna Convention on the Law of Treaties (1969).

614 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).

ARTICLE 79

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,⁶¹⁵ the Vienna Convention on the Ozone Layer (1985) twenty,⁶¹⁶ the Basel Convention (1989) twenty,⁶¹⁷ the Climate Change Convention (1992) fifty,⁶¹⁸ the Convention on Biological Diversity thirty,⁶¹⁹ and the 1987 Montreal Protocol eleven (subject to certain qualifications).⁶²⁰ 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.

ARTICLE 80

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.⁶²¹ In a few instances, Parties may register exceptions with regard to technical details contained in annexes.⁶²² The obligations contained in the Draft

615 Article 308(1).

616 Article 17(1).

617 Article 25(1).

618 Article 23(1).

619 Article 36(1).

620 Article 16(1).

621 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).

622 For example, the listing of individual endangered species provided under Article XXIII of the CITES (1973).

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 81

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 place 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.⁶²³ The Draft Covenant will not terminate merely because, as a result of withdrawals, the number of Parties falls below twenty-one.⁶²⁴

ARTICLE 82

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.⁶²⁵ The

623 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).

624 See Article 55 of the Vienna Convention on the Law of Treaties (1969).

625 See e.g., Article 19 of the Climate Change Convention (1992); Article 41 of the Convention on Biological

requirements of depositaries set out in the Vienna Convention on the Law of Treaties apply.⁶²⁶ **Paragraph 2** sets forth three other functions of the Secretary-General.⁶²⁷ The first is to give effect to the requirement under Article 71 (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 of the agenda of a Review Conference (see Article 74), 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 73 (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 and conferences to consider amendments (Article 74 (Review Conference)).

ARTICLE 83

AUTHENTIC TEXTS

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

It is normal for global environmental treaties to be adopted in the six official languages of the United Nations. Depositing the Draft Covenant with the Secretary-General of the United Nations is in conformity with the requirement of the UN Charter.⁶²⁸

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

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).

626 Article 77(1) of the Vienna Convention on the Law of Treaties (1969).

627 Article 77(1) of the Vienna Convention on the Law of Treaties (1969) permits the accordance of specifically-tailored functions to the depositary.

628 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) (reprinted in 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)

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

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

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) (UKTS59 (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)”]; Amendment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Art.XI), Bonn, 22 June 1979 (Reprinted in EMuT 973:18/A); and Amendment to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Art. XXI), Gaborone, 30 April 1983 (reprinted in EMuT 973:18/B)

International Convention on the Prevention of Pollution from Ships, London, 2 November 1973 (UN. Leg. Series ST/LEG/SER.B/18, 461; IMCO 74.01; and Protocol, London, 17 February 1978 (reprinted in 17 ILM 546 (1978) and EMuT 973:84 and 973:84/A) [“MARPOL Convention (1973)”]

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)”]; and Amendments to the Convention on the Protection of the Marine Environment of the Baltic Sea Area (Annex VII; Response to Pollution Incidents), Copenhagen, 3 October 2013

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) [“LR-TAP 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); 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); Protocol for the Protection of the Coastal and Marine Environment of the Western Indian Ocean from Land-based Sources and Activities, Nairobi, 31 March 2010 (reprinted in EMuT 2010:24/A); and Amended Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean (formerly The Eastern African Region), Nairobi, 31 March 2010 (reprinted in EMuT 2010:24)

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); and Amendments to Annex IX to The Convention On The Control Of Transboundary Movements Of Hazardous Wastes And Their Disposal, 10 May 2013

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)

Treaty on European Union, Maastricht, 1 December 2009 (Reprinted in EMuT 992:11); and Treaty of Lisbon amending the Treaty on European Union and the Treaty establishing the European Community, Lisbon, 13 December 2007 [“Lisbon Treaty”]

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); 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); and Amendments to Article 25 of The Convention On The Protection And Use Of Transboundary Watercourses And International Lakes (Accession by non-United Nations Economic Commission for Europe countries), 30 November 2012

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)

Convention on the Protection of the Marine Environment of the Baltic Sea Area, Helsinki, 9 April 1992; (reprinted in EMuT 992:28) [“Baltic Sea Convention 1992”]

Convention on the Protection of the Black Sea Against Pollution, Bucharest, 21 April 1992 (reprinted in EMuT 992:30); and Protocol on the Protection of the Marine Environment of the Black Sea from Land Based Sources and Activities, Sofia, 7 April 2009 (reprinted in EMuT 992:30/E)

UN Framework Convention on Climate Change, New York, 9 May 1992 (UN Doc A/CONF.151/26 (Vol. I); (reprinted in 31 ILM 849 (1992) and EMuT 992:35) [“Climate Change Convention (1992)”]; Kyoto Protocol to the United Nations Framework Convention on Climate Change, 11 December 1997, (reprinted in 37 I.L.M. 22 (1998) and EMuT 992:35/A) [“Kyoto Protocol (1997)”]; Amendment to Annex B of the Kyoto Protocol to the United Nations Framework Convention on Climate Change, Nairobi, 17 November 2006 (reprinted in EMuT 992:35B); and Doha Amendment to Articles 3 and 4 and Annexes A and B to the Kyoto Protocol to the United Nations Framework Convention On Climate Change, Doha, 8 December 2012 (reprinted in EMuT 992:35/C)

Convention on Biological Diversity, Rio de Janeiro, 5 June 1992 (reprinted in 31 ILM 822 (1992) and EMuT 992:42) [“Convention on Biological Diversity (1992)”]; Cartagena Protocol on Biosafety to the Convention on Biological Diversity, Cartagena, 29 January 2000 (reprinted in EMuT 994:42/A) [“Biosafety Protocol”]; Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, Nagoya, 15 October 2010 (Reprinted in EMuT 992:42C); and Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity, Nagoya, 29 October 2010 (reprinted in EMuT 992:42/B)

Treaty of the Southern African Development Community (SADC), Windhoek (17 August 1992) (reprinted in EMuT 992:62); and Protocol on Wildlife Conservation and Law Enforcement, Maputo, 18 August 1999 (reprinted in EMuT 992:62/E)

Convention on the Protection of the Marine Environment of the North-East Atlantic, Paris, 22 September 1992 (reprinted in 32 ILM 1069 (1993) and EMuT 992:71) [“North-East Atlantic Convention (1992)”, “OSPAR Convention”]

North American Free Trade Agreement, 17 December 1992 (reprinted in 32 ILM 289 and 605 (1993) and EMuT 992:93) [“NAFTA (1992)”]

FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, Rome (1993) (reprinted in EMuT 994:07) [“FAO High Seas Fishing Agreement (1993)”]

Convention on the Prohibition of the Development, Production, and Stockpiling and Use of Chemical Weapons and On Their Destruction, 13 January 1993 (reprinted in 32 ILM 804 (1993) and EMuT 993:04) [“Chemical Weapons Convention (1993)”]

Convention on Civil Liability for Damage Resulting from Activities Dangerous to the Environment, Lugano, 21 June 1993 (reprinted in 32 ILM 1228 (1993) and EMuT 993:19) [“Council of Europe Civil Liability Convention (1993)”]

Uruguay Round: Agreement on Trade-Related Aspects of Intellectual Property Rights, 15 December 1993 (reprinted in 33 ILM 81 (1994)) [“Uruguay Round TRIPS Agreement (1993)”]

Agreement Establishing the World Trade Organization, Marrakesh, 15 April 1994 (reprinted in 33 ILM 1144) [“WTO Agreement (1994)”]

UN Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, 17 June 1994 (reprinted in 33 ILM 1328 (1994) and EMuT 994:76) [“Desertification Convention (1994)”]

International Tropical Timber Agreement, 26 January 1994 (reprinted in EMuT 994:07)

Convention on Cooperation for the Protection and Sustainable Use of the Danube River, Sofia, 29 June 1994 (reprinted in EMuT 994:49) [“Danube Convention (1994)”]

Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora, Lusaka, 8 September 1994 (reprinted in EMuT 994:67)

Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, New York, 4 August 1995 (reprinted in EMuT 982:92/B) [“Straddling Stocks Agreement (1994)”]

Convention to Ban the Importation into Forum Island Countries of Hazardous Wastes and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific, 16 September 1995 (reprinted in EMuT 995:69) [“Forum Island Hazardous Waste Convention (1995)”]

Amendments to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources, Preamble, Syracuse, 7 March 1996 (reprinted in EMuT 976:13/I)

International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 3 May 1996 (reprinted in EMuT 996:34) [“Liability for Carriage of Noxious Elements by Sea (1996)”]; and Protocol to the International Convention on Liability And Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, London, 30 April 2010.

Convention on the Collection, Deposit and Reception of Waste Produced During Navigation on the Rhine and Inland Waterways, September 9, 1996

Comprehensive Nuclear Test Ban Treaty, 24 September 1996 (reprinted in EMuT 996:71)

Declaration on the Establishment of the Arctic Council, Ottawa, 19 September 1996, (reprinted in 35 ILM 1382 (1996)); and Agreement on Cooperation on Marine Oil Pollution, Preparedness and Response in the Arctic, Kiruna, 15 May 2013 (reprinted in EMuT 2013:36)

Convention on the Law of the Non-Navigational Uses of International Watercourses, New York, 21 May 1997 (reprinted in EMuT 997:38) [“UN Watercourses Convention (1997)”]

Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, Oslo, 18 September 1997 (reprinted in EMuT 997:70) [“Ottawa Treaty (1997)”]

Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, Aarhus, 25 June 1998 (reprinted in EMuT 998:48) [“Aarhus Convention(1998)”]; Protocol on Pollutant Release and Transfer Registers to the Convention on Access to Information, Public-Participation in Decision-Making and Access to Justice in Environmental Matters, Kiev, 21 May 2003 (reprinted in EMuT 998:48/A); and Amendment to the Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, 27 May 2005, Almaty (reprinted in EMuT 998:48/B)

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Rotterdam, 10 September 1998 (reprinted in EMuT 998:68) [PIC Convention, Rotterdam Convention];

Convention on the Protection of the Environment through Criminal Law, Strasbourg, 4 November 1998 (reprinted in EMuT 998:82) [“European Criminal Law Convention (1998)”]

Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific Ocean, Honolulu, 5 September 2000 (reprinted in EMuT 2000:67)

International Convention on Civil Liability for Bunker Oil Pollution Damage, London, 23 March 2001 (reprinted in EMuT 2001:23)

Convention on the Conservation and Management of Fishery Resources in the South-East Atlantic Ocean, Windhoek, 20 April 2001 (reprinted in EMuT 2001:30)

Stockholm Convention on Persistent Organic Pollutants, Stockholm, 22 May 2001 (reprinted in EMuT 2001:39) [Stockholm Convention];

Framework Agreement on the Environment of MERCOSUR, Asunción, 22 June 2001 (Reprinted in EMuT 2001:46; and its Additional Protocol, Asunción, 3 November 2005)

FAO International Treaty on Plant Genetic Resources for Food and Agriculture, Rome, 3 November 2001 (reprinted in EMuT 2001:82)

Convention for Cooperation in the Protection and Sustainable Development of the Marine and Coastal Environment of the Northeast Pacific, Antigua, 18 February 2002 (reprinted in EMuT 2002:14) [“Antigua Convention (2002)”]

ASEAN Agreement on Transboundary Haze Pollution, Kuala Lumpur, 10 June 2002 (reprinted in EMuT 2002:44)

Framework Convention on the Protection and Sustainable Development of the Carpathians, Kiev, 22 May 2003 (reprinted in EMuT 2003:39/A); [Carpathian Convention]; Protocol on Conservation and Sustainable Use of Biological and Landscape Diversity to the Framework Convention on the Protection and Sustainable Development of the Carpathians, Kiev, 22 May 2003 (Reprinted in EMuT 2003: 39/A); Protocol on Sustainable Forest Management to the Framework Convention on the Protection and Sustainable Development of the Carpathians, Bratislava, 27 May 2011 (reprinted in EMuT 2003:39/B); Protocol on Sustainable Tourism to the Framework Convention on the Protection and Sustainable Development of the Carpathians, Bratislava, 27 May 2011 (reprinted in EMuT 2203:39/C); and Protocol on Sustainable Transport to the Framework Convention on the Protection and Sustainable Development of the Carpathians, Mikulov, 26 September 2014 (Reprinted in EMuT 2003:39/D)

Convention on the Sustainable Management of the Lake Tanganyika, Dar es Salaam, 12 June 2003 (reprinted in EMuT 2003:46)

African Convention on the Conservation of Nature and Natural Resources, Maputo, 11 July 2003 (Reprinted in EMuT 2003:52)

Agreement on a Testing Ground for Application of the Kyoto Mechanisms on Energy Projects in the Baltic Sea Region, Gothenburg, 29 September 2003

Framework Convention for the Protection of the Marine Environment of the Caspian Sea, Tehran, 4 November 2003; (reprinted in EMuT 2003:82) Protocol concerning Regional Preparedness, Response and Co-Operation in combating Oil Pollution Incidents to the Framework Convention on the Protection of the Marine Environment of the Caspian Sea, Aktau, 12 August 2011 (reprinted in EMuT 2003:82A); Protocol for the Protection of the Caspian Sea against Pollution from Land based

Sources and Activities to the Framework Convention on the Protection of the Marine Environment of the Caspian Sea, Moscow, 12 December 2012 (Reprinted in EMuT 2003:82/B); and Protocol for the Conservation of Biological Diversity to the Framework Convention for the Protection of the Marine Environment of the Caspian Sea, Ashgabat, 30 May 2014 (reprinted in EMuT 2003:82/C)

European Convention for the Protection of Animals during International Transport (revised), Chisinau, 6 November 2003 (reprinted in EMuT 2003:83)

Convention for the Strengthening of the Inter-American Tropical Tuna Commission established by the 1949 Convention between the United States of America and the Republic of Costa Rica, Washington D.C., 14 November 27 June 2003 (reprinted in EMuT 2003:85)

International Convention for the Control and Management of Ships' Ballast Water and Sediments, London, 13 February 2004 (reprinted in EMuT 2004:13)

Treaty on the Conservation and Sustainable Management of Forest Ecosystems in Central Africa and to Establish the Central African Forests Commission (COMIFAC), Brazzaville, 5 February 2005

Agreement among the governments of Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and the United States of America on Environmental Cooperation, Tegucigalpa, 18 February 2005

Agreement on the Establishment of the ASEAN Centre for Biodiversity, Bangkok, 12 September 2005

International Tropical Timber Agreement, Geneva, 27 January 2006 (reprinted in EMuT 2006:08)

Southern Indian Ocean Fisheries Agreement, Rome, 7 July 2006 (reprinted in EMuT 2006:54)

Framework Convention on Environmental Protection for Sustainable Development in Central Asia, Ashgabat, 22 November 2006 (reprinted in EMuT 2006:87)

Convention on Cluster Munitions, Dublin, 30 May 2008 (reprinted in EMuT 2008:40)

Statute of the International Renewable Energy Agency, Bonn, 26 January 2009 (reprinted in EMuT 2009:08)

Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, Hong Kong, 15 May 2009 (reprinted in EMuT 2009: 35)

Convention on the Conservation and Management of High Seas Fishery Resources in the South Pacific Ocean, Auckland, 14 November 2009

Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, Rome, 22 November 2009

Agreement on the Protection and Sustainable Development of the Prespa Park Area, Pyli, 2 February 2010

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INDEX*

- Abatement, Article 31
Access, Article 15; 35; 39; 41; 51; 52; 53; 56; 62
Accession, Article 78; 79
Accidental introduction, Article 33
Action plan(s), Article 44
Administrative offenses, Article 63
Administrative procedure(s), Article 15
Adverse effects, Article 21; 29; 33; 34; 46
Affected person(s), Article 41
Agenda 21, Preamble
Agriculture/agricultural, Article 34; 45
Air, Preamble; Article 22
Alien organism(s), Article 33
Alternative, Article 8; 32; 46
Amendment, Article 75
Application and compliance, Part X
Aquaculture, Article 34
Aquatic system(s), Article 24, 43
Aquifers, Article 24; 43; 45
Area(s), Article 14; 18; 22; 27; 28; 37; 40; 41; 43; 45; 48; 52; 69
Areas Beyond National Jurisdiction, 14; 41; 43; 52; 69
Arid Zones, Article 25
Armed conflict, Preamble; Article 40; 65
Associated species, Article 27
Associations, Preamble; Article 46
Basic needs, Preamble; Article 35
Basin(s), Article 45
Best available technology(ies), Article 22; 30; 39
Beyond national jurisdiction, Article 14; 41; 52; 69
Bioaccumulative, Article 30
Biological diversity, Article 17; 27; 45
Biological resource(s), Article 27; 38; 50
Biosphere, Preamble; Article 40
Biotechnology(ies), Article 33; 52
Buffer zone(s), Article 27
Capacity(ies), Preamble; Article 9; 21; 35; 49; 50; 56
Capacity building, Article 54; 56
Catchment area(s), Article 43
Cave systems, Article 25
Circumstances precluding wrongfulness, Article 64
Civil liability, Article 66
Civil society, Article 35
Climate, Preamble; Article 21
Coastal, Article 25; 45
Coastal ecosystem(s), Article 25
Combat zones, Article 40
Commodities, Article 38
Common but differentiated responsibilities, Article 13
Common concern of humanity, Article 3
Compensation, Article 38; 56; 59; 64; 66
Compliance, Preamble; Article 32; 38; 46; 64; 72
Consensus, 38; 75
Consent, Article 42; 53; 64
Conservation, Preamble; Article 1; 4; 10; 17; 23; 24; 25; 26; 27; 34; 38; 43; 45; 47; 50; 53; 74
Constitution(s), Preamble
Consultation(s), Article 38; 39
Consumer(s), Article 36
Consumption, Preamble; Article 17; 36
Contingency plan(s), Article 49
Coordination, Article 19
Cooperation, Preamble; Article 19; 49; 50; 51; 56
Corporate social responsibility, Article 36; 39
Corridor(s), Article 27
Countermeasures, Article 64
Court, competent, Article 66
Criminal, Article 63
Culture (al), Preamble; Article 17; 28; 40
Cultural and natural heritage, Article 28
Culture, Preamble

* The numbering of the articles has changed due to additions or amendments. Entries have been modified as far as possible. Any further corrections are welcomed.

- Damage(s), 34; 59; 60; 61; 62; 63; 64; 65; 66
Dangerous installation(s), Article 40
Decision-making, Article 15; 17
Declaration and Plan of Implementation of the
Degradation, Preamble; Article 23
Demographic policies, Article 37
Depositary, Article 77; 82
Deserts, Article 25
Desertification, Article 23
Destruction, Preamble; Article 27; 40
Developed country(ies), Preamble
Developing country(ies), Preamble; Article 50;
53; 56
Development, Preamble; Article 1; 4; 11; 12; 14;
15; 17; 21; 33; 35; 37; 38; 43; 45; 50; 51; 54;
55; 56; 58
Development assistance, Article 56
Disasters, Article 19; 49
Discharge areas, Article 43
Displaced, persons, Article 19; 37; 40
Dispute(s), Article 72; 73
Domestic law, Article 61
Drainage basin(s), Article 45
Due process, Article 41
Duty to protect, Article 15
Ecological integrity, Article 10
Ecological network, Article 27
Ecological system(s) Preamble; Article 2; 27
Economic activity(ies), Preamble; Article 11, 17;
35 36; 37; 39; 45; 53, 56; 59; 74
Ecosystem(s), 25; 26; 26; 27; 33; 34; 38; 43; 50
Ecosystem approach, Article 26; 27; 34; 43
Ecosystem services, Article 25
Education, Article 35; 54
Emergency(ies), Article 19; 49
Emission(s), Article 21; 22; 47
Endangered species, Article 27
Energy, Article 36; 74
Entry into force, Article 79
Environmental damage, Article 34; 59; 60; 61
Environmental harm, Article 6; 7; 18; 39
Environmental impact assessment(s)/EIA,
Article 31; 41; 46; 56
Environmentally sound technology(ies), Article
51; 56
Equitable, Preamble; Article 11; 41; 43; 52
Equity, Preamble; Article 5; 43
Eradication, Preamble; Article 12; 35
Exceptions to liability, Article 65
Family planning, Article 37
Favourable conservation status, Article 43
Final clauses, Part XI
Financial resources, Article 55; 56
Floodplains, Article 25
Food, Preamble; Article 34; 35
Force majeure, Article 64
Forest(s), Article 25; 45
Forestry, Article 45
Framework, Preamble; Article 1
Freshwater, Article 25
Fundamental principle(s), PART II
Future generations, Preamble; Article 5; 38; 40
Gender, Preamble
General Assembly, Preamble; Article 56
General Obligations, Part III
Genetic diversity, Preamble; Article 27
Genetic resource(s), Article 52
Girl child, Preamble, Article 35
Glacier(s), Article 25
Good faith, Article 41
Governance, Preamble
Grazing, Article 45
Gross national product, Article 56
Groundwater(s), Article 24
Guideline(s), Article 31; 39
Habitat(s), Article 27
Harm, Preamble; Article 6; 7; 8; 14; 18; 19; 28;
29; 31; 38; 39; 40; 41; 47; 58; 60; 63
Harvesting, Article 38
Hazardous substance(s), Article 42
Health, Article 15; 20; 22; 29; 31; 32; 34; 37; 48
Heritage, Preamble, Article 28
Human rights, Preamble; Article 4
Humanity, Preamble; Article 3; 11; 12; 40
Hostile activities, Article 40

- Implementation, Preamble; Article 17; 43; 47; 74; 82
- Implementation and coordination, Part VIII
- in situ conservation, Article 27
- Incidental taking, Article 27
- Indicator(s), Article 47
- Indigenous people(s), Preamble; Article 15; 16; 35; 45; 54
- Information, Article 15; 36; 37; 39; 41; 48; 50; 53; 54
- Insurgency, Article 40
- Integration, Article 74; 76; 77; 78; 79
- Intergenerational, Preamble
- Interdependence, Preamble
- International Council for Science, Article 74
- International Court of Justice, Article 73
- International law, Article 3; 14; 40; 57
- International organization(s), Article 17; 19; 35; 46; 48; 49; 82
- International Tribunal for the Law of the Sea, Article 73
- Intra-generational, Preamble
- Irreversible, Article 7
- Johannesburg Declaration, Preamble
- Joint management, Article 43
- Joint research, Article 51
- Judicial procedures, Article 15; 41
- Jurisdiction, Article 14; 19; 38; 39; 41; 43; 52; 59; 69
- Justice, Article 5; 39; 73
- Knowledge, Article 19; 28; 53; 54
- Land, Preamble; Article 16; 26; 34; 35
- Landscape, Article 28
- Law of the sea, Article 73
- Liability, Article 56; 59; 65; 66
- Life form(s), Article 2
- Limitations, Article 59
- Livelihoods, Article 25; 33; 35
- Local, Article 15; 22; 35; 45; 54
- International Trade, Article 38
- Management, Article 21; 24; 26; 27; 29; 38; 43; 54
- Marine environment, Article 43
- Microcredit, Article 35
- Migratory species, Article 43
- Military activities, Article 40
- Millennium Declaration of the United Nations, Preamble
- Modified organism(s), Article 33; 42
- Monitoring, Article 48
- Monument(s), Article 28
- Mountain(s), Article 25
- Natural resource(s), Preamble; Article 14; 17; 34; 38; 43; 47; 48; 50; 53; 54; 56; 74
- Natural system(s), Article 9; 21; 25; 43; 45
- Nature, Preamble; Article 2; 74; 82
- Negligence, Article 64
- Network(s), Article 27
- Noise, Article 31
- Non-discrimination, Article 62
- Non-governmental organization(s), Article 74
- Non-Party(ies), Article 70
- Non-regression, Article 10
- Non-renewable resources, Article 36
- Non-waste technology, Article 32
- Notification, Article 41; 73; 81
- Objective(s), Part I; Article 1; 17; 44; 55; 56; 67; 70
- Obligation(s), Preamble; Article 11; 26; 34; 40; 57; 59; 64; 68; 71; 72; 77
- Obligations relating to global issues, Part VI
- Obligations relating to natural systems and resources, Part IV
- Obligations relating to processes and activities, Part V
- Observer(s), Article 74
- Offense(s), Article 63
- Official development assistance, Article 56
- Organism(s), Article 27; 31; 33; 42
- Originator, Article 6
- Ozone, Article 20
- Participate(ion), Article 35; 36; 46; 50
- Partnership, Preamble; Article 1; 12; 21; 35; 55
- Peace, Article 4; 40; 73

- Peatlands, Article 25
- Peaceful settlement of dispute(s), Article 73
- Permanent Court of Arbitration, Article 73
- Permit(s), Article 32
- Persistent organic pollutants, Article 34
- Physical and legal persons, Article 15
- Planning, Article 17; 27; 31; 37; 45; 49
- Polar region(s), Article 25
- Pollution, Preamble; Article 6; 22; 30; 34
- Population(s), Preamble; 27; 31; 37; 43; 54
- Potable water, Article 35
- Poverty, Preamble; Article 12; 17; 35
- Precaution(ary), Article 7
- Preserve, Article 28
- Prevention/Prevent, Preamble; Article 6; 7; 19; 20; 22; 23; 27; 28; 29; 30; 32; 33; 39; 41; 47
- Principle(s), Preamble; Article 3; 14; 26; 40; 59
- Prior informed consent, Article 42; 53
- Process standard(s), Article 47
- Product(s), Preamble; Article 29; 32; 36; 38; 42; 47; 56
- Production, Preamble; Article 17; 34; 36; 38
- Proof, Article 59
- Proportionality, Article 8
- Protection/Protect(s), Article 3; 14; 15; 16; 21; 22; 27; 28; 34; 40; 45; 68; 79
- Protected area(s), Article 27; 45
- Public authorities, Article 15
- Public awareness, Article 46; 54
- Public conscience, Article 3; 40
- Public interest, Article 10
- Public order, Preamble
- Quality of life, Preamble; Article 12
- Quality standard(s), Article 22
- Ratification, Article 75; 77; 79
- Reasonable, Article 8; 40; 46
- Reciprocity, Article 43
- Recommended practices, Article 47
- Recourse(s), Article 61
- Recovery plan(s), Article 27
- Recycling, Article 36
- Redress, Article 15; 29; 59; 61; 64
- Regional economic integration, Preamble; Article 74; 76; 77; 78; 79
- Regression, Article 10
- Regulation, Article 17; 40; 53
- Rehabilitate, Article 28; 35
- Remediation, Article 6
- Renewable resource, Article 14; 36
- Report(s), Article 48; 71; 72; 82
- Research, Article 25; 48; 50; 51
- Reservation(s), Article 80
- Resettlement, Article 37
- Resilience, Preamble; Article 9
- Resource(s), Preamble, Article 14; 16; 17; 19; 24; 26; 27; 34; 35; 36; 38; 43; 47; 48; 50; 52; 53; 54; 55; 56; 74
- Respect(s), Preamble; Article; 2; 4; 14; 15; 35; 47
- Response measures, Article 60
- Responsibility, Preamble; Article 36; 39; 57; 65
- Responsibility and liability, Part IX
- Restore/Restoration, Article 2; 9; 10; 24; 25; 27; 43; 47; 59
- Review Conference, Article 74; 82
- Right(s), Preamble; Article 4; 11; 14; 15; 16; 35; 45; 46; 53; 61; 62; 68; 77
- Right to environment, Preamble
- Right to development, Preamble; Article 11; 35
- Right to participate, Article 15
- Rio Declaration, Preamble
- Rio + 20 Declaration “The Future We Want”, Preamble
- Risk(s), Article 7; 21; 28; 29; 33; 39; 41; 46; 49; 64
- Rule of law, Preamble; Article 4
- Sabotage, Article 40
- Sanitation, Article 35
- Satisfaction, Article 15
- Scientific research, Article 25; 48
- Scientific and technical cooperation, Article 50
- Scientifically sound, Article 46
- Secretary-General, Article 71; 74; 75; 77; 78; 81; 82
- Security, Preamble; Article 15
- Self-defence, Article 64

- Settlement of disputes, Article 73
 Signature, Article 76
 Significant harm, Article 14
 Small Island Developing States, Preamble, Article 21
 Social responsibility, Article 36; 39
 Soil(s), Preamble; Article 23
 Solidarity, Preamble
 Sovereign right(s), Article 14
 Spatial planning, Article 27; 31; 45
 Standard(s), Article 12; 22; 34; 39; 40; 47; 48
 Standard of proof, Article 59
 State(s), Preamble; Article 13; 14; 15; 19; 21; 35; 38; 39; 41; 42; 43; 46; 48; 49; 50; 52; 56; 57; 58; 59; 60; 61; 62; 64; 65; 72; 74; 75; 76; 77; 78; 79
 State liability, Part IX; Article 57
 State responsibility, Preamble, 57, 65
 Stockholm Declaration, Preamble
 Stratospheric ozone, Article 20
 Stricter measure(s), Article 68
 Subsidiarity, Preamble
 Substitution, Article 29
 Sustainability, Article 28
 Sustainable development, Preamble, Article 1; 12; 17; 37; 51; 54; 55
 Sustainable Development Goals, Preamble
 Sustainable harvesting, Article 38
 Sustainable utilization/use, Preamble; Article 14; 26; 27; 34; 35; 38; 43; 47; 50; 53
 Taking, Preamble; Article 5; 23; 27; 47; 5; 56; 59
 Technical cooperation, Article 50
 Technology transfer, Article 51, 52
 Territorial sovereignty, Article 14
 Terrorism, Article 40
 Timetable(s), Article 44
 Town and country planning, Article 45
 Toxic substance(s), Article 30
 Trade, Article 38
 Traditional knowledge, Article 28; 53
 Traditional practice(s), Article 15
 Training, Article 54
 Transboundary, Article 22; 32; 38; 41; 43; 46; 50; 58; 59; 60; 62
 Transboundary environmental damage, Article 59; 60
 Transboundary issue, Part VII
 Transboundary natural resources, Article 50
 Transfer of environmental harm, Article 18
 Transfer of technology, Article 51, 52
 Treaties, other, Article 67
 United Nations, Preamble; Article 14; 56; 71; 74; 75; 77; 78; 81; 82
 Value(s), Preamble; Article 3; 4; 28; 40; 53
 Venture(s), Article 51
 Vessel(s), Article 40
 Warfare, Article 40
 Waste(s), Article 14; 32; 36; 38; 42
 Water, Preamble; Article 24; 25; 26; 35
 Watercourse(s), Article 24
 Wetland(s), Article 25
 Withdrawal(s), Article 81
 Women, Preamble; Article 35
 World Charter for Nature, Preamble
 World Summit on Sustainable Development, Preamble
 Wrongfulness, Article 64
 Zoonotic diseases, Article 33



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