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WORKSHOP ON LIABILITY AND REDRESS IN THE CONTEXT OF THE CONVENTION ON BIOLOGICAL DIVERSITY
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Item 3 of the provisional agenda*

LIABILITY AND REDRESS UNDER THE CONVENTION ON BIOLOGICAL DIVERSITY

Review of relevant international legal instruments and issues for consideration

Note by the Executive Secretary

INTRODUCTION

1. The issue of liability and redress with regard to transboundary damage to biological diversity was one of the themes on the agenda during the negotiation of the Convention on Biological Diversity. The negotiators were, however, unable to reach any consensus regarding the details of a liability regime under the Convention and consequently postponed the consideration of the issue to a future date. Thus, paragraph 2 of Article 14 of the Convention provides that "the Conference of the Parties shall examine, on the basis of studies to be carried out, the issue of liability and redress, including restoration and compensation, for damage to biological diversity, except where such liability is a purely internal matter." In paragraph 7.3 of its medium-term programme of work (1996-1997), adopted by decision II/18, the Conference of the Parties decided that the issue of measures to provide information and share experiences on the implementation of Article 14 would be considered at its fourth meeting. In order to assist the Conference of the Parties in the consideration of this issue at that meeting, the Executive Secretary prepared a note (UNEP/CBD/COP/4/20) providing, *inter alia*, an overview of liability and redress in international law and on-going discussions on the issue in international forums.

2. At its fourth meeting, the Conference of the Parties established a process for generating the necessary information that would facilitate an informed consideration of the issue at its subsequent meetings. By decision IV/10 C, it invited Parties, Governments and relevant international organizations to provide the Executive Secretary with information on national, international and regional measures and agreements on liability and redress applicable to damage to biological diversity, including the nature, scope and coverage of such provisions, and information on experiences in their implementation, as well as information regarding access by foreign citizens to national courts potentially applicable to or in cases involving transboundary environmental harm. It also requested Parties to include in their national reports information on actions taken with respect to liability and redress for damage to biological diversity. The Executive Secretary was mandated by the same decision to prepare a synthesis report based on

* UNEP/CBD/WS-L&R/2.

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information contained in submissions by Parties and other relevant information, for consideration by the Conference of the Parties at its fifth meeting. The Executive Secretary subsequently prepared a synthesis of submissions from Governments and international organizations (UNEP/CBD/COP/5/16) that formed the basis for the discussions on the issue at the fifth meeting of the Conference of the Parties.

3. At its fifth meeting, the Conference of the Parties, by decision V/18, renewed the call for information by Parties, Governments and relevant international organizations and decided "to consider at its sixth meeting a process for reviewing paragraph 2 of Article 14, including the establishment of an ad hoc technical expert group, taking into account consideration of these issues within the framework of the Cartagena Protocol on Biosafety, and the outcome of the workshop referred to in paragraph 8" of the decision, in which the Conference of the Parties welcomed the offer of the Government of France to organize an inter-sessional workshop on liability and redress in the context of the Convention.

4. The Executive Secretary has prepared this document to assist the Workshop in its discussions. The document examines the concept of State responsibility and environmental liability in customary public international law (section I), reviews existing multilateral treaties dealing with liability and redress for transboundary harm (section II), provides an overview of on-going developments in related international forums (section III), and suggests issues for consideration regarding the process for the review of paragraph 2 of Article 14 and the nature and content of a liability and redress regime under the Convention (section IV).

GENERAL CONSIDERATIONS

5. The scope of international environmental treaty law has greatly expanded since the 1972 Stockholm Conference on the Human Environment often regarded as the watershed in the global environmental awakening. This process has, however, not been accompanied by any significant developments in the legal rules governing international liability and redress for environmental damage. The appeal to States in both the 1972 Stockholm Declaration and the 1992 Rio Declaration to cooperate to develop further the international law regarding liability and compensation for environmental damage have met only with limited response to-date. In the negotiation of several multilateral environmental agreements, the development of liability and compensation regimes has often been postponed to some future date. 1/

6. It can be argued, however, that an international environmental liability and redress regime is an essential mechanism for the enforcement of the environmental policies and standards established through multilateral treaties. In this respect, such a regime is seen to serve several important functions. First, it is an instrument to promote compliance with international environmental norms and the implementation of both the precautionary approach and the prevention principle. Generally, the threat of incurring liability and the potential burden of redress measures acts as an incentive towards more precautionary approaches to economic activities resulting in the avoidance of environmental risk and damage. Secondly, it serves a reparative function by shifting the costs of environmental damage from society at large to the person or persons responsible for the activity causing damage. By allocating responsibility for repairing the damage caused by an act or activity, a liability and redress regime serves as an instrument for the implementation of the polluter pays principle. Lastly, holding the author of environmental harm responsible for redressing it may act as a deterrent regarding environmentally harmful activities or at least lead to investment in preventive measures. It is an incentive to States and non-State actors to avoid environmentally harmful conduct.

1/ See, for example, the Convention on Long-range Transboundary Air Pollution, Geneva, 1979; the UN Convention on the Law of the Sea, Montego Bay, 1982; the Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, Basel, 1989; and the Cartagena Protocol on Biosafety, Montreal, 2000.

I. STATE RESPONSIBILITY:

7. Liability for international environmental harm subsumes both the concept of State responsibility for breaches of international law, which predates the emergence of the global environmental agenda, and liability for harm resulting from activities permitted under international law. The general principle of international law that States are under an obligation to protect within their own territory the rights of other States to territorial integrity and inviolability has been progressively extended over the years through state practice and judicial decisions to cover transboundary environmental harm. In the 1938-1941 *Trail Smelter Arbitration*, 2/ the Arbitral Tribunal affirmed that "under the principles of international law, as well as the law of the United States, 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 of property or persons therein". This principle of State responsibility was restated by the International Court of Justice (ICJ) in the 1949 *Corfu Channel Case*, 3/ where it observed that there were "general and well-recognized principles" of international law concerning "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States" and by the Arbitral Tribunal in the 1956 *Lac Lanoux* arbitration. 4/ More recently, in 1996, in its advisory opinion on *The Legality of the Threat or Use of Nuclear Weapons*, the ICJ declared that "the 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". 5/

8. The general obligation upon States with respect to transboundary environmental harm was reaffirmed in principle 21 of the Stockholm Declaration and principle 2 of the Rio Declaration. In both instances, it was asserted that "States have…the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction". It was subsequently incorporated, in identical terms, in the preambular paragraphs of the 1979 Convention on Long-range Transboundary Air Pollution, the 1985 Vienna Convention for the Protection of the Ozone Layer, and the 1992 United Nations Framework Convention on Climate Change, and in Article 194 of the 1982 United Nations Convention on the Law of the Sea, and Article 3 of the 1992 Convention on Biological Diversity. These instruments and the ICJ opinion in *The Legality of the Threat or Use of Nuclear Weapons Case* extended the transboundary reach of the obligation to include areas beyond the limits of national jurisdiction, thus transcending the limits set in the *Trail Smelter Arbitration.*

9. The obligation has two parts: first, to take measures to prevent the occurrence of transboundary environmental harm and, secondly, to redress the damage if the transboundary harm occurs. The general principle of international law is that a State which breaches its international obligation has a duty to right the wrong committed. The Permanent Court of International Justice (PCIJ) clearly stated in the *Chorzow Factory Case* 6/ that a State in breach owes to the affected States a duty of reparation, which must "as far as possible, wipe out the consequences of the illegal act and re-establish the situation which would, in all probability, have existed if that act had not been committed". The ICJ, in the *Case Concerning the Gabcikovo-Nagymaros Project (Hungary/Slovakia*) (25 September 1997, General List No. 92), has, however, noted the limitations inherent in the very mechanism of reparation of environmental damage. On this account and because such damage is often irreversible, the Court emphasized the need for vigilance and prevention.

10. The issue of reparation with regard to damage to the environment beyond the limits of national jurisdiction, outside the framework of specific treaty provisions, raises interesting questions: what

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2/ United Nations, *Reports of International Arbitral Awards*, vol. III, 1906-1982.

3/ 1949 ICJ Rep. 4.

4/ 1957 I.L.R. 101.

5/ Advisory Opinion of 8 July 1996, (1996) 35 ILM 809.

6/ PCIJ Ser. A, No. 13, 46-48.

indemnities are due and who is to claim them? *Obiter dicta* by the ICJ in the *Barcelona Traction Case* (1970 ICJ 4) would seem to suggest that there exist basic obligations to the international community as a whole (*erga omnes*) that can consequently be asserted by any State. Whether this extends to environmental damage in areas beyond the limits of national jurisdiction is an arguable point. 7/

11. Since 1955, the International Law Commission has been working on the topic of State responsibility. This work is now in its final stages with the provisional adoption by the Drafting Committee of the latest version of the draft articles on State responsibility in August 2000. 8/ According to the draft articles, every breach by a State of an obligation under international law constitutes an internationally wrongful act and entails the international responsibility of that State (article 1). Specific legal consequences arise from such an international wrongful act. First, the responsible State must cease the wrongful act if it is of a continuing character and must offer appropriate assurances and guarantees of non-repetition (article 30). Secondly, the responsible State is under an obligation to make full reparation for the injury caused by the internationally wrongful act (article 31). Full reparation can take three forms: restitution, compensation and satisfaction, either singly or in combination (article 35). A responsible State is under an obligation to make restitution, that is, to re-establish the situation, which existed before the wrongful act was committed (article 36). In so far as the damage is not made good by restitution, the responsible State is under an obligation to compensate for the damage caused by the wrongful act (article 37). Finally, where restitution or compensation cannot make good the damage, the responsible State is under an obligation to give satisfaction for the injury caused (article 38). Satisfaction may consist of an acknowledgement of the breach, an expression of regret or a formal apology.

II. REVIEW OF EXISTING INTERNATIONAL LEGAL INSTRUMENTS

12. A limited number of multilateral treaties have been concluded in the field of liability and redress for transboundary harm. These are in the areas of nuclear damage, oil pollution, transport of dangerous goods and substances, and space objects. In addition, in 1993, the Council of Europe adopted a civil liability regime regarding activities dangerous to the environment. 9/ The central objective of these treaties is to secure compensation for loss of life or personal injury; loss or damage to property; and damage to or impairment of the environment. The earlier instruments, such as the oil pollution and nuclear-damage treaties, conceived of damage only in terms of injury to person or property. Liability for transboundary environmental damage is a fairly recent development, being superimposed on these regimes through amendments. Even then, compensation for environmental damage *per se*, that is, besides loss of profits arising from any impairment of the environment, is largely restricted to the costs of measures of reinstatement actually undertaken or to be undertaken. The instruments are largely silent on the issue of compensation in situations where such reinstatement is not feasible.

13. The majority of the instruments create a *civil* liability regime; a few, in addition, impose subsidiary State liability; and only one establishes original State liability. States have been reluctant to establish international rules of strict *State* liability for transboundary harm arising from otherwise lawful activities. Thus, in general, liability is tied to the conduct of a dangerous activity and is generally channeled to the entity that undertakes the activity. Liability is not predicated on the legality of the activity or the fault of the "operator" but on the causal link between the activity and the resultant transboundary damage. A *criminal* liability regime has been established by the Convention on the Protection of the Environment through Criminal Law adopted by the Council of Europe in 1998. This is

7/ See Francisco Orrego Vicunna, "State Responsibility, Liability and Remedial Measures under International Law" in E. B. Weiss (ed.), *Environmental Change and International Law: New Challenges and Dimensions*, United Nations University, Tokyo, 1992.

8/ See, *Report of the International Law Commission on the work of its fifty-second session*, 1 May to 9 June and 10 July to 18 August 2000, (A/55/10).

9/ See Council of Europe Convention for Damage resulting from Activities Dangerous to the Environment 1993, Lugano (hereinafter "the Lugano Convention").

the only instrument that provides for such liability. Its framework provides for the creation of criminal offences through national law.

A. The nuclear-liability treaties

14. The existing international legal framework relating to civil liability for nuclear damage consists of three inter-related conventions. These are: the Convention on Third Party Liability in the Field of Nuclear Energy (hereinafter "the Paris Convention") adopted in Paris on 29 July 1960 under the auspices of the Nuclear Energy Agency of the Organization for Economic Cooperation and Development (OECD/NEA); 10/ the Vienna Convention on Civil Liability for Nuclear Damage ("the Vienna Convention") adopted on 21 May 1963 under the auspices of the International Atomic Energy Agency (IAEA); 11/ and the Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material ("the 1971 Brussels Convention") adopted on 17 December 1971 under the auspices of IAEA, OECD and the International Maritime Organization (IMO). 12/

15. The Paris Convention was supplemented in 1963 by the Brussels Supplementary Convention on Third Party Liability in the Field of Nuclear Energy ("the Brussels Supplementary Convention") and amended by additional protocols adopted in 1964 and 1982. In 1988, at the initiative of both the IAEA and OECD/NEA, the Paris and Vienna Conventions were linked by the Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention ("the Joint Protocol"), which entered into force on 27 April 1992. Before 1992 the Paris and Vienna Conventions operated independently of each other and benefited only their respective Parties. No State is a Party to both regimes due to potential conflicts involved in their simultaneous application. The Joint Protocol provides a link between the two instruments and thereby establishes an expanded liability regime. Parties to the Joint Protocol are treated as though they were Parties to both Conventions and a choice of law rule is provided to determine which regime should apply in respect of an incident 13. In 1997, the Vienna Convention was amended by the Protocol to Amend the 1963 Vienna Convention on Civil Liability for Nuclear Damage ("the Vienna Amending Protocol") and supplemented by the Convention on Supplementary Compensation for Nuclear Damage ("the Convention on Supplementary Compensation"). Neither the Amending Protocol nor the Supplementary Convention is yet in force.

16. The regimes of the Paris and Vienna conventions have several common elements:

(a) Both instruments establish a regime of strict liability for nuclear damage. 14/ Thus, no proof of fault is required as a condition precedent for liability. A limited number of exemptions from liability are provided for in both instruments. These are where the incident is due to an act of armed conflict, hostilities, civil war or insurrection, or a grave natural disaster of an exceptional character; 15/

(b) Although originally the concept of "nuclear damage" was confined in both instruments to loss of life or personal injury and loss or damage to property, this has since been extended to cover both "environmental damage" and pure economic loss arising from nuclear damage. The 1997 Vienna Amending Protocol extended the definition of "nuclear damage" to include: (i) economic loss arising from loss or damage to person or property; (ii) the costs of measures of reinstatement of impaired

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10/ The Paris Convention is a regional instrument for West European countries. It entered into force on 1 April 1968 and currently has 14 Contracting Parties.

11/ The Vienna Convention is global in character. It entered into force on 12 November 1977 and currently has 32 Contracting Parties.

12/ The 1971 Brussels Convention is global in character. It entered into force on 15 July 1975 and currently has 14 Contracting Parties.

13/ Currently the Joint Protocol has 20 Contracting Parties.

14/ Note that the Vienna Convention characterizes liability as "absolute" yet proceeds to provide specific exemptions from liability: Article IV.

15/ See article 9 of the Paris Convention and article IV of the Vienna Convention.

environment; (iii) loss of income deriving from an economic interest in any use or enjoyment of the environment, incurred as a result of a significant impairment of that environment; and, (iv) the costs of preventive measures (article 2). The Convention on Supplementary Compensation adopts the same definition of nuclear damage as the 1997 Protocol (article 1);

(c) Liability is channeled exclusively to the operator of the nuclear installation. 16/ This is the person designated or otherwise recognized, in advance, by the relevant national authorities as the person who would be liable, should an accident occur at a particular installation or in the course of transport to or from that installation. The operator is liable even with regard to accidents occurring during the course of transportation of the nuclear material. 17/ Thus, the primary purpose of the 1971 Brussels Convention is to exonerate any person transporting nuclear material, who might be held liable by virtue of an international convention in the field of maritime transport, from liability for nuclear damage in cases where the operator of a nuclear installation is liable under the Paris or the Vienna Conventions; 18/

(d) Liability is limited. The instruments impose a ceiling on the total amount of compensation that can be paid in respect of damage caused by one single nuclear incident. Under the original Paris Convention the maximum liability of the operator was fixed at 15 million Special Drawing Rights (SDRs). 19/ The Vienna Convention provides that the liability of the operator may be limited by the Installation State to not less than US$ 5 million for any one nuclear incident. The 1963 Brussels Supplementary Convention, the 1997 Vienna Amending Protocol and the 1997 Convention on Supplementary Compensation have significantly improved the compensation provisions of the Paris and Vienna conventions. A remarkable feature is the introduction of subsidiary State liability, through the establishment of supplemental public funding, beyond the maximum limit of operator liability. 20/. The Brussels Supplementary Convention improved the compensation provisions of the Paris Convention by establishing a three-tier compensation structure: at the first level, Parties are required to establish by national legislation a minimum operator liability of 5 million SDRs, to be provided or guaranteed by insurance or other financial security; at the second level, supplementary public funds up to a total of 175 million SDRs are to be made available by the Party in whose territory the nuclear installation causing damage is located; and finally, in so far as damage exceeds the amount provided at the second level, a further sum of 125 million SDRs is to be provided from public funds to be contributed jointly by all Parties on the basis of a predetermined formula. The 1997 Vienna Amending Protocol establishes a new minimum level for operator liability of 300 million SDRs, or 5 million SDRs together with a "topping-up" sum from public funds to be made available by the Contracting State of the operator in the event of a nuclear accident up to a total of 300 million SDRs. The Convention on Supplementary Compensation also establishes a tiered compensation structure. The regime established by the Convention applies to both the Paris and Vienna conventions. The stated objective of the Convention is to establish a worldwide liability regime to supplement and enhance compensation measures under the two conventions with a view to increasing the amount available for nuclear damage. At the first level, the Installation State is to ensure the availability of 300 million SDRs. Beyond this amount, the Contracting Parties have to make available through public funds specific amounts calculated on the basis of a predetermined formula. The funds provided at the second level apply to nuclear damage suffered within the territory of a Contracting Party, in maritime areas beyond the territorial sea of a Contracting Party, and in the exclusive economic zone (EEZ) of a Contracting Party (article V). The Paris Convention and Brussels

16/ Article 3 of the Paris Convention; article II, Vienna Convention

17/ Article 4 of the Paris Convention; article II of the Vienna Convention

18/ See article 1 of the Brussels Convention.

19/ Defined in the Convention on Supplementary Compensation as "the unit of account defined by the International Monetary Fund and used by it for its own operations and transactions".

20/ See, for example, article 7 of the Vienna Amending Protocol; article III of the Convention on Supplementary Compensation.

Supplementary Convention are in the final stage of revision, which will bring the coverage of their combined provisions to up to 1,050 SDRs;

(e) Limitations are imposed on the period within which claims for compensation can be brought. Under both the Paris and Vienna Conventions actions for compensation must be brought within ten years from the date of the nuclear incident. In addition, Contracting Parties may limit the operator's liability to no less than two years (Paris Convention) and three years (Vienna Convention) from the time the damage or the operator liable became known or ought reasonably to have become known to the person suffering damage. The limitation period has been extended by the Vienna Amending Protocol to thirty years with respect to loss of life and personal injury and ten years with respect to any other damage (article 8);

(f) Contracting Parties are required to ensure that operators maintain insurance or other financial security corresponding to their liability under the two instruments;

(g) The geographical scope of the application of both instruments is limited. The Paris Convention provides that it does not apply to nuclear incidents occurring in the territory of non-contracting States or to damage suffered in such territory. The original Vienna Convention contained no provision concerning its territorial application. Consequently, the 1997 Vienna Amending Protocol introduced a new Article I A which provides that the Convention applies to nuclear damage wherever suffered (Article 3). However, an Installation State may, subject to certain conditions, exclude from the application of the Convention damage suffered in the territory of a non-contracting State or in any maritime zones established by a non-contracting State in accordance with the international law of the sea. The territorial limits of application established under both the Paris and Vienna Conventions have largely been overridden by the provisions of the Convention on Supplementary Compensation. As was stated earlier, the public funds from contracting parties' contributions under the latter Convention cover damage suffered not only within the territory of a contracting party but also in maritime areas beyond the territorial sea and in the exclusive economic zone;

(h) There is unity of jurisdiction and joint recognition and enforcement of judgments. 21/ Jurisdiction over actions under both conventions lie with the courts of the contracting party in whose territory the nuclear incident occurred. Where the nuclear incident occurs outside the jurisdiction of any contracting party, or where the place of the incident cannot be determined with any certainty, jurisdiction shall lie with the courts of the Installation State of the operator. It should be noted that the 1997 Vienna Amending Protocol gives a coastal contracting State jurisdiction in case of an incident occurring within its exclusive economic zone (article 12). This new provision does not, however, subtract from the general principle. A final judgment entered by a court of competent jurisdiction is recognizable and enforceable in the territories of all contracting States.

B. The oil pollution liability instruments

17. The oil pollution liability and redress regime is provided by the 1969International Convention on Civil Liability for Oil Pollution Damage ("the Oil Pollution Convention"), the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution ("the Oil Fund Convention"), and the 1977 Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources. The 1978 Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution envisages the development of a regional liability and compensation regime for damage resulting from pollution of the marine environment.

18. The objective of the Oil Pollution Convention is to ensure that adequate compensation is available to persons who suffer damage resulting from the escape or discharge of oil from ships. The

21/ See article 13 of the Paris Convention; articles XI and XII of the Vienna Convention.

Convention places liability on the owner of the ship at the time of the pollution incident. The regime is one of strict liability, admitting only a limited number of exemptions. The owner is not liable if he can prove, *inter alia*, that the damage was as a result of an act of war, hostilities, civil war, insurrection or "a natural phenomenon of an exceptional, inevitable and irresistible character". Liability is, however, limited. According to the 1992 IMO Protocol to Amend the International Convention on Civil Liability for Oil Pollution Damage, 1969, the owner's liability for any single incident is limited on the basis of the tonnage of the ship. For example, for a ship whose tonnage does not exceed 5000 gross tonnage liability is limited to 3 million SDRs. The owner is required to maintain insurance or other financial security to cover his liability under the Convention. Liability is also limited in time: actions for compensation must be brought within three years of the occurrence of the incident, but in no case shall an action be brought after six years from the date of the incident (article VIII). The 1969 Convention restricts its territorial application to pollution damage caused in the territory of a contracting party, including its territorial sea (article 2). This jurisdictional scope has been extended by the 1992 amendment to cover the exclusive economic zone of a contracting party. With regard to preventive measures, the Convention does not impose any territorial limits. 22/ Similarly, although the definition of "pollution damage" is restricted in the 1969 Convention to "loss or damage…by contamination resulting from escape or discharge of oil" including costs of preventive measures, the 1992 Amendment has clarified this as including impairment of the environment and loss of profits arising from such impairment (article 2). However, compensation for the impairment of the environment is limited to "costs of reasonable measures of reinstatement actually undertaken or to be undertaken taken." Jurisdiction over actions for compensation lie with the courts of the contracting party in whose territory the pollution incident has occurred. The Convention provides for mutual recognition and enforcement of judgments in the territories of all contracting parties (article X).

19. The 1971 Oil Fund Convention has a double objective. In the first instance, it endeavours to guarantee full compensation to the victims of oil pollution damage in cases where the regime established by the 1969 Convention does not afford full protection. Secondly, it seeks to alleviate the financial burden imposed on the shipping industry by the 1969 Convention by shifting part of the financial responsibility to the oil cargo interests. For these purposes, it establishes the International Oil Pollution Compensation Fund (article 2). The Fund is under obligation to pay compensation in cases where a victim is unable to obtain full and adequate compensation under the terms of the 1969 Convention because either: (a) no liability arises under the 1969 Convention; or (b) the owner liable under the 1969 Convention is financially incapable of meeting his obligations in full; or (c) the damage exceeds the owner's liability under the 1969 Convention (article 4). The Fund is obliged to indemnify the ship owner or his insurer for a portion of the ship owner's liability under the 1969 Convention (article 5). The Fund may also provide assistance to a Contracting Party in the form of personnel, materiel or credit facilities to enable such Party to take measures to prevent or mitigate pollution damage for which the Fund may be called upon to pay compensation (article 4). The Convention applies to pollution damage caused in the territory, including the territorial sea, of a Contracting Party and to preventive measures taken by a Contracting Party within or outside its territory.

20. The Fund's obligation to pay compensation is limited. The total amount of compensation payable jointly by the ship owner and the Fund shall not exceed 30 million SDRs for any one incident. Contributions to the Fund are made by all persons receiving oil by sea in Contracting States. A list of contributors from each contracting State is maintained by the Director of the Fund. However, a contracting State may at the time of becoming Party declare that it assumes itself directly the obligation to make such contributions. The Oil Fund Convention was amended in 1992 through the IMO Protocol to Amend the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1971. The Protocol made important adjustments to the 1971 regime. First, the jurisdictional application of the regime was extended to cover the exclusive economic zone and

22/ Article 3 of the 1992 Amendment.

preventive measures taken within or outside the limits of national jurisdiction. Secondly, the financial limit regarding compensation for any one incident was revised to 135 million SDRs. Thirdly, the Protocol established a separate Fund from the 1971 Fund, known as the 1992 Fund. This new Fund is supposed to replace the 1971 one since Parties to the 1992 Protocol cease to be Parties to the 1971 Oil Fund Convention.

21. The 1977 Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources also establishes a strict liability regime for oil pollution damage arising from the exploration for and exploitation of seabed mineral resources. The operator of an offshore installation is liable to pay compensation for loss or damage caused by contamination resulting from the escape or discharge of oil from the installation, including the cost of preventive measures. The Convention applies to damage suffered within the territory of a contracting party and to preventive measures wherever taken. Exemptions from liability are similar to those established by the Conventions previously examined. Liability in respect of any one incident is limited to 30 million SDRs. The operator is required to maintain insurance or other financial security to cover his liability under the Convention. Actions for compensation must be brought within 12 months of the date the victim knew or ought reasonably to have known of the damage, but in any case no action shall be instituted after four years. Actions for compensation can be brought either in the courts of the contracting party where the damage was suffered or in the courts of the "Controlling State". 23/ The Convention provides for mutual recognition and enforcement of judgments in the territories of all contracting States. The Convention is not yet in force.

22. The objective of the Kuwait Regional Convention is to establish a regional framework for cooperation among the Parties for the prevention, abatement and combating pollution of the marine environment of the "Sea Area" (article II). The activities targeted include pollution from ships, pollution from dumping, pollution from land-based activities, and pollution resulting from seabed exploration and exploitation. Article XIII of the Convention contemplates the development of rules and procedures for liability and compensation. In effect, the Parties undertake to cooperate in the formulation and adoption of appropriate rules and procedures for the determination of:

(a) Civil liability and compensation for damage resulting from pollution of the marine environment, bearing in mind applicable international rules and procedures relating to those matters; and

(b) Liability and compensation for damage resulting from violation of obligations under the convention and its protocols.

C. Liability regarding the transport of dangerous goods and substances

23. There are three multilateral instruments in this category. These are the 1989 Convention on Civil Liability for Damage caused during Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD), the 1996 International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea (the HNS Convention); and the 1999 Basel Protocol on Liability and Compensation for Damage resulting from Transboundary Movements of Hazardous Wastes and Their Disposal.

24. The CRTD imposes strict liability on the "carrier" of dangerous goods for damage occasioned during the transport of such goods. Damage is defined to include: (a) loss of life or personal injury; (b) loss of or damage to property; (c) loss or damage by contamination of the environment; and (d) the costs of preventive measures. Compensation for the impairment of the environment is limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken. The Convention does not apply to damage caused by a nuclear substance if the operator of a nuclear installation is liable for such damage under either the Paris or Vienna conventions. The application of the Convention is also limited to

23/ A "Controlling State" means a 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 (article 1).

damage sustained in the territory of a contracting party and to preventive measures wherever taken. The carrier is exempted from liability where the damage resulted from an act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character; the damage is wholly caused by an act or omission of a third party; or the consignor of the goods or any other person failed to meet his obligation to inform the carrier of the dangerous nature of the goods. Where no liability attaches to the carrier in the latter instance the consignor or the other person shall be deemed to be the carrier for the purposes of the Convention.

25. The liability of the road or rail carrier is limited to 18 million SDRs with respect to claims for loss of life or personal injury and to 12 million SDRs for any other claim. The liability of a carrier by inland navigation vessel is limited to 8 million and 7 million SDRs respectively. The carrier is required to maintain insurance or other financial security to cover his liability under the Convention.

26. Actions for compensation are to be instituted within three years from the date at which the victim knew or ought reasonably to have known of the incident causing damage, but in any case no action can be brought after 10 years. Jurisdiction over claims lie with the courts of a State Party where either the damage was sustained, the incident occurred, preventive measures were taken, or the carrier has his habitual residence. The Convention provides for mutual recognition and enforcement of judgments in the territories of all Contracting States.

27. The HNS Convention deals with the transport of defined hazardous and noxious substances. 24/ It imposes strict liability against the ship owner for damage caused by hazardous and noxious substances in connection with their carriage by sea on board a ship. The Convention does not apply to pollution damage as defined in the 1969 International Convention on Civil Liability for Oil Pollution Damage. Liability is with respect to loss of life or personal injury; loss or damage to property; loss or damage by contamination of the environment; and the costs of preventive measures. Compensation for impairment of the environment, other than loss of profit from such impairment, is again, like in the previous cases, limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken.

28. As regards territorial limits of application the Convention has interesting departures from the instruments previously examined. It applies to any damage caused in the territory, including the territorial sea, of a State Party; to damage by contamination of the environment caused in the exclusive economic zone, or its equivalent, of a State party; to damage, other than damage by contamination of the environment, caused outside the territory of any State party, if the damage is caused by a substance carried on board a ship registered in a State party or, if unregistered, by a ship entitled to fly the flag of a State party; and to preventive measures wherever taken. Damage to person or property caused outside the limits of national jurisdiction can be compensated as long as the subject ship is registered in a State party or is entitled to fly the flag of a State party. However, environmental damage in areas outside the limits of national jurisdiction is not covered by the Convention. Nevertheless, as is the case with most of the instruments examined, measures to prevent or mitigate damage, including environmental damage, outside national jurisdiction would fall within the ambit of the Convention.

29. Exemptions from liability include an act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character; act or omission of a third party; negligence or other wrongful act of any Government or other authority responsible for the maintenance of lights or other navigational aids; the failure of the consignor or any other person to furnish information concerning the hazardous nature of the substance being shipped. Liability of the ship owner is limited according to the tonnage of the ship. 25/ The ship owner is required to maintain insurance or other financial security regarding his liability under the Convention.

24/ See article 1.

25/ See article 9.

30. The Convention establishes the International Hazardous and Noxious Substances Fund (the HNS Fund) to provide compensation where the protection afforded by the owner's liability regime is either inadequate or unavailable. The HNS Fund will pay compensation in three situations: (a) where no liability for damage arises under the provisions dealing with the ship owner's liability; (b) where the owner liable is incapable of meeting his obligations under the Convention; or (c) the damage suffered exceeds the owner's liability under the Convention. The Fund has the additional function of providing assistance to State Parties, upon request, to undertake measures to prevent or mitigate damage arising from an incident in respect of which the HNS Fund may be called upon to pay compensation. Contributions to the Fund are to be made by consignees of specified cargoes in each State Party. 26/ Under Article 23, a State party may, at the time of becoming party, declare that it assumes responsibility imposed by the Convention on any person liable to pay contributions to the Fund. The Fund is administered by a secretariat under the overall guidance of an Assembly composed of States parties to the Convention.

31. Actions for compensation under the HNS Convention must be brought within 3 years from the date when the victim knew or ought reasonably to have known of the damage and the identity of the owner. In any case, no action shall be instituted after 10 years from the date of the incident causing damage. Jurisdiction in respect of actions for compensation lies with the courts of the State party in whose territory the incident occurred. However, with regard to incidents occurring outside the territory of any State, jurisdiction lies with the courts of either the flag State party, the State party where the owner has his habitual residence or principal place of business, or a State party where a fund for compensation has been constituted by the owner. There is provision for mutual recognition and enforcement of judgments in the territories of States Parties. The HNS Convention is not yet in force.

32. The Basel Protocol on Liability and Compensation for Damage resulting from Transboundary Movements of Hazardous Wastes and their Disposal was adopted on 10 December 1999 at the fifth meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. It is not yet in force. The objective of the Protocol is to provide a comprehensive liability regime as well as a mechanism to ensure adequate and prompt compensation for damage resulting from the transboundary movement of hazardous wastes and other wastes, including incidents occurring because of illegal traffic in such wastes. In contrast to all the other international instruments dealing with liability and redress, the Basel Protocol establishes both a strict and fault-based liability regime.

33. Liability under the Protocol is with regard to loss of life or personal injury; loss or damage to property; loss of income directly deriving from an economic interest in any use of the environment, incurred as a result of impairment of the environment; the costs of measures of reinstatement of the impaired environment, limited to the costs of measures actually undertaken or to be undertaken; and the costs of preventive measures. The Protocol defines what constitutes "measures of reinstatement" of an impaired environment. These are any reasonable measures aiming to assess, reinstate or restore damaged or destroyed components of the environment. 27/

34. The Protocol imposes strict liability on a series of persons regarding damage resulting from the transboundary movement of hazardous wastes reflecting the complex nature of the relationships arising from such movement and the specificities of the provisions of the Basel Convention. 28/ Thus, liability is imposed variously on the notifier, disposer, exporter, importer and re-importer. The notifier of a transboundary movement is liable for damage until the disposer takes possession of the wastes; thereafter the disposer is liable. The exporter is liable where either the State of export is the notifier or no notification has taken place in terms of the provisions of the Convention. The importer is liable with

26/ See articles 16-22.

27/ See article 2, paragraph 2 (d).

28/ See article 4.

respect to wastes under article 1, paragraph 1 (b) of the Convention that have been notified as hazardous by the State of import in accordance with article 3 of the Convention but not by the State of export. A number of exemptions apply with respect to the liability imposed under article 4. These are where the damage is a result of an act of armed conflict, hostilities, civil war or insurrection; a natural phenomenon of exceptional, inevitable, unforeseeable and irresistible character; compliance with a compulsory measure of a public authority of the State where the damage occurred; or the wrongful intentional conduct of a third party. As regards fault-based liability, article 5 contains an omnibus provision imposing liability on "any person…for damage caused or contributed to by his lack of compliance with the provisions implementing the Convention or by his wrongful intentional, reckless or negligent acts or omissions".

35. In the case of strict liability, the liability of the notifier, exporter, importer and disposer for any one incident is limited in accordance with the tonnage of the shipment. 29/ The persons liable under the strict-liability regime are required to establish and maintain, during the time limit of the period of liability, insurance, bonds or other financial guarantees covering such liability. There are no financial limits with respect to fault-based liability. The Protocol provides that where available compensation is not sufficient to cover the damage, "additional and supplementary measures aimed at ensuring adequate and prompt compensation may be taken using existing mechanisms" (article 15). It would seem that where compensation under the Protocol is inadequate resort may be had to the financial mechanisms established under article 14 of the Basel Convention. The possibility of the Meeting of the Parties to the Protocol improving such existing mechanisms or establishing new ones to better serve its objectives is expressly contemplated. Liability is also limited in time. Actions for compensation must be instituted within five years from the date the claimant knew or ought reasonably to have known of the damage; but in any case no action shall be instituted after ten years from the date of the incident causing damage. Jurisdiction over actions for compensation lie with the courts of the contracting party where the damage was suffered; or the incident occurred; or the defendant has his habitual residence or principal place of business. In identical terms to the other instruments examined, the Protocol provides for mutual recognition and enforcement of judgments in the territories of all contracting parties. 30/

36. The jurisdictional application of the Protocol is circumscribed in a number of respects. As a general rule, the Protocol applies to damage due to an incident occurring during a transboundary movement of hazardous wastes and other wastes and their disposal, including illegal traffic, from the point where the wastes are loaded on the means of transport in an area under the national jurisdiction of a State of export 31/ The application of the Protocol is regulated in accordance with the various operations specified in annex IV to the Convention. Nevertheless, the Protocol applies, with two notable exceptions, only to damage suffered in an area under the national jurisdiction of a contracting party. These exceptions are: (a.) as regards damage to person or property or the costs of preventive measures, the Protocol's application is extended to areas beyond any national jurisdiction; 32/ and (b) the Protocol applies to all categories of damage suffered in an area under the jurisdiction of a State of transit which is not a party provided that such State appears in annex A (largely composed of small island developing States) and has acceded to a multilateral or regional agreement concerning transboundary movements of hazardous wastes.

D. Convention on Liability for Damage caused by Space Objects, 1972:

37. The objective of the Convention is to establish effective international rules and procedures concerning liability for damage caused by space objects and to ensure prompt payment of full and equitable compensation to victims of such damage. It is the only international legal instrument that

29/ Article 12 and annex B.

30/ Article 21.

31/ Article 3(1).

32/ Article 3 (3) a).

imposes absolute liability. In effect, there are no exemptions from liability as is the case with other instruments examined. A launching State is absolutely liable to pay compensation for damage caused by its space object on the surface of the Earth or to aircraft in flight. Exoneration from such liability is contemplated only in cases of contributory negligence on the part of a claimant State or of the victims it represents.

38. Moreover, the Convention is the only instrument that establishes original State liability. As is evident from the foregoing review, most of the instruments either establish third-party liability regimes or, in addition, consecrate some form of subsidiary State liability. Under the Convention, it is the "launching State", defined to subsume a State that launches or procures the launching of a space object or from whose territory such an object is launched, that bears responsibility for the damage caused by the space object.

39. Damage under the Convention does not include environmental damage. It is restricted to loss of life, personal injury or other impairment of health, or loss of or damage to property.

40. Claims for compensation are to be presented by the State that suffers damage, or whose nationals suffer damage, to the launching State through either diplomatic channels or the Secretary-General of the United Nations. Such claims must be made within one year following the occurrence of the damage or the identification of the liable launching State. If no settlement is reached through diplomatic negotiations within one year of presentation, the parties concerned are required to establish a Claims Commission. The decision of the Commission shall be final and binding if the parties have so agreed. Otherwise, the Commission shall render a final and recommendatory award, which the parties are enjoined to consider in good faith.

41. The amount of compensation payable is to be determined in accordance with international law and the principles of justice and equity with a view "to provide such reparation in respect of the damage as will restore the person, natural or juridical, State or international organization on whose behalf the claim is presented to the condition which would have existed if the damage had not occurred" (article XII).

E. The Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment ("The Lugano Convention"), 1993

42. The Lugano Convention, adopted under the auspices of the Council of Europe, is so far the most elaborate treaty dealing with liability and redress for environmental damage. This Convention deals with environmental damage regardless of whether it has a transboundary dimension. However, the Convention leaves considerable flexibility to national legal systems with respect to its implementation and also allows them to establish provisions, which go much further than those of the Convention in terms of environmental protection and the protection of victims of environmental damage. The Convention has not yet entered into force.

43. The stated objective of the Convention is to ensure adequate compensation for damage resulting from activities dangerous to the environment and also to provide for means of prevention and reinstatement. It is worth noting that the definition of "dangerous activity" includes the production, storage, use, disposal or release of genetically modified organisms; the operation of an installation for the disposal and treatment of wastes as specified in an annex to the Convention; and the production, use or discharge of dangerous substances. An activity is deemed dangerous if it poses "a significant risk for man, the environment or property" (article 2). "Damage" includes damage to person or property; loss or damage by impairment of the environment; and the costs of preventive measures and any loss or damage caused by preventive measures. However, compensation for impairment of the environment, other than loss from such impairment, is limited to the costs of measures of reinstatement actually undertaken or to be undertaken. The definition of the term "environment" is broad, encompassing "natural resources both abiotic and biotic, such as air, water, soil, fauna and flora and the interaction between the same factors;

property which forms part of the cultural heritage; and the characteristic aspects of the landscape" (article 2).

44. Liability under the Convention is strict and is imposed on the "operator" of the activity causing damage. This is the person who has the operational control of the dangerous activity. Most of the exemptions from liability are similar to those previously examined with respect to other international legal instruments. 33/ However, there are three important departures: the operator is not liable if he proves that the damage resulted necessarily from compliance with a specific order or compulsory measure of a public authority; was caused by pollution at tolerable levels under relevant local circumstances; or was caused by a dangerous activity taken lawfully in the interests of the person who suffered damage.

45. The Convention does not apply to damage arising from carriage or damage caused by a nuclear substance. This is precisely because these issues are already regulated by specific international treaties. As regards jurisdictional scope, the Convention shall apply when the incident occurs in the territory of a contracting party or when the incident occurs outside the territory of a party but the conflict of law rules lead to the application of the law in force in a contracting party.

46. Each party is enjoined to ensure that operators in its territory are required to participate in a financial security scheme or to maintain a financial guarantee up to a certain limit under terms specified by national legislation to cover their liability under the Convention.

47. Actions for compensation have to be brought within three years from the date the claimant ought to have known of the damage and the identity of the operator. In any case, however, no action can be brought after 10 years from the date of the incident causing damage. Such actions may be brought within a party at the court of the place where: (a) the damage was suffered; (b) the dangerous activity was conducted; or (c) the defendant has his habitual residence. Where proceedings involving the same cause of action and between the same parties are brought in the courts of different parties, any court other than the court first seized shall stay its proceedings until such time as the jurisdiction of the court first seized is established. Once such jurisdiction is established any other court shall decline jurisdiction on the issue. The Convention provides for mutual recognition and enforcement of judgments in the territories of all parties.

F. The Convention on the Protection of the Environment through Criminal Law, 1998

48. The Convention requires contracting parties to adopt appropriate measures to establish criminal offences under domestic law for various activities that cause or are likely to cause injury or damage to person, property or the environment. Such activities include the intentional discharge of a quantity of substances or ionising radiation into air, water or soil; the unlawful disposal, treatment, storage, transport, export or import of hazardous waste; the unlawful causing of changes detrimental to natural components of a national park, nature reserve, water conservation area or other protected areas; and the unlawful possession, taking, damaging, killing or trading of or in protected wild flora and fauna species. The term "unlawful" is defined as "infringing a law, an administrative regulation or a decision taken by a competent authority aiming at the protection of the environment". Corporations can be held criminally liable for acts committed by members, organs or representatives.

49. The Convention requires the establishment by Parties of criminal sanctions for environmental offences, which take into consideration the serious nature of the offences. These may include imprisonment, fines, reinstatement of the environment, and confiscation of instrumentalities and proceeds. Parties are required to afford each other the widest measure of cooperation in investigations and judicial proceedings relating to criminal offences established in accordance with the Convention.

33/ Article 8.

III. OVERVIEW OF ONGOING INITIATIVES IN OTHER RELEVANT FORUMS

50. A number of initiatives have been launched in other relevant international forums to address the issue of liability and redress for transboundary environmental damage. These initiatives have taken place or are taking place within the United Nations Environment Programme (UNEP), the United Nations Compensation Commission (UNCC), the International Law Commission (ILC), the Antarctic Treaty system, the Cartagena Protocol on Biosafety to the Convention on Biological Diversity, and the European Commission.

A. United Nations Environment Programme (UNEP)

51. In 1994, UNEP established the Working Group on Liability and Compensation for Environmental Damage Arising from Military Activities within the framework of the UNEP long-term Programme for the Development and Periodic Review of Environmental Law for the 1990s ("Montevideo Programme II") adopted by the Governing Council in 1993. Programme area "S" identified liability and compensation for environmental damage as a subject where action by the appropriate international bodies to develop international responses may be appropriate during the decade. The establishment of the Working Group followed the creation by the United Nations Security Council of the United Nations Compensation Commission to receive claims for, *inter alia*, environmental damage and depletion of natural resources resulting from Iraq's unlawful invasion and occupation of Kuwait. Security Council resolution 687 (1991) reaffirmed that Iraq was "liable under international law for any loss or damage, including environmental damage and the depletion of natural resources" that occurred as a result of its unlawful invasion and occupation of Kuwait. However, resolution 687 did not define environmental damage or the depletion of natural resources, nor did it provide any guidance to UNCC as to how environmental claims should be assessed for purposes of reparation or compensation.

52. In furtherance of the Montevideo Programme II and in order to provide a practical contribution to the work of UNCC, the Working Group was given the following mandate:

(a) To define the concepts of "environmental damage" and "depletion of natural resources";

(b) To recommend criteria for determining the reasonableness of measures taken to clean and restore the environment or future measures to be undertaken to clean and restore the environment;

(c) To recommend the criteria for valuing "environmental damage" and "depletion of and damage to natural resources";

(d) To consider issues related to the appropriate level of financial reparation; and

(e) To examine the legal interest and capacity of States and international organizations in bringing claims to UNCC.

53. In accordance with its mandate the Working Group focused on issues of international law concerning liability and compensation for environmental damage, in particular, as they related to the work of UNCC. The Working Group adopted its report in May 1996. Some of the major conclusions of the Working Group are summarized in its report as follows:

(a) Any State may bring a claim for damage which has occurred in or to the land within its boundaries; internal waters; territorial sea; airspace above its land; and exclusive economic zone and continental shelf to the extent that damage occurred to resources over which it has jurisdiction or sovereign rights in accordance with international law. The possibility that a State may bring a claim in relation to damage to areas beyond national jurisdiction should not be excluded, provided a clear legal interest can be demonstrated;

(b) The term "natural resources" refers to components of the environment that primarily have a commercial value, while "environmental damage" encompasses damage to components of the

environment whose primary value is non-commercial. "Environment" includes abiotic and biotic components, including air, water, soil, flora, fauna and the ecosystem formed by their interaction, and may also include cultural heritage, features of the landscape and environmental amenity. "Environmental damage" refers to the impairment of the environment, that is to say, a change that has a measurable impact on the quality of a particular environment or any of its components (including its use and non-use values) and its ability to support and sustain an acceptable quality of life and a viable ecological balance;

(c) Where compensation is due for damage caused by a wrongful act, the basis for that compensation under international law is reflected in the approach of the Permanent Court of International Justice in the *Chorzow Factory Case*. That approach relates to the standard of compensation but does not provide guidance as to how to value the damage, which has occurred. The reasonableness of measures that are the subject of a compensation claim must be determined on a case by case basis, and will depend on balancing of the benefit to be achieved and the cost incurred taking into account several factors;

(d) The methodology for determining the amount of compensation regarding measures undertaken to prevent and abate environmental damage would be the costs actually incurred in taking such measures. The environmental as well as the economic costs of clean-up measures should be considered, in accordance with the basic requirement of mitigation or avoidance of damage. The basic aim of restoration should be to reinstate the ecologically significant functions of injured resources and the associated public uses and amenities supported by such functions.

54. The Programme for the Development and Periodic Review of Environmental Law for the First Decade of the Twenty-first Century (Montevideo III), adopted by the UNEP Governing Council in February 2001, establishes a programme area entitled "Prevention and mitigation of environmental damage" with the objective to strengthen measures to prevent environmental damage, and to mitigate such damage when it occurs. The strategy to achieve this is to promote the development and application of policies and measures to prevent environmental damage and to mitigate such damage by means, *inter alia*, of restoration or redress, including compensation, where appropriate. In this context, action will be taken to promote, where appropriate, efforts by States to develop and adopt minimum international standards at high levels of protection and best practice standards for the prevention and mitigation of environmental damage. Studies will be conducted on the effectiveness of existing regimes of civil liability as a means of preventing environmentally harmful activities and mitigating environmental damage, and provide expertise to States to enhance the effectiveness of such regimes. Also studies will be conducted on the adequacy and effectiveness of ways and means of providing compensation, remediation, replacement and restoration for environmental damage, including methods of valuation, and encourage efforts by States to develop and adopt standard environmental economic valuation tools and techniques for such valuation. Support will be provided for the development by States of processes and procedures for victims and potential victims of environmentally harmful activities, regardless of their nationality, to ensure appropriate access to justice and provide appropriate redress, including the possibility of compensation, *inter alia*, through insurance and compensation funds.

B. United Nations Compensation Commission

55. The United Nations Compensation Commission (UNCC) is a subsidiary organ of the United Nations Security Council. It was established by the Council in 1991 to process claims and pay compensation for losses resulting from Iraq's invasion and occupation of Kuwait. Compensation is payable to successful claimants from a special fund that receives a percentage of the proceeds from sales of Iraqi oil. The Security Council established Iraq's legal responsibility in its resolution 687 of 3 April 1991 in which it stated that "Iraq…is liable under international law for any direct loss, damage, including environmental damage and the depletion of natural resources, or injury to foreign Governments, nationals and corporations, as a result of Iraq's unlawful invasion and occupation of Kuwait". The resolution was adopted under chapter VII of the Charter of the United Nations, which concerns action with respect to the peace, breaches of the peace and acts of aggression.

56. The Security Council, in section E of resolution 687, created a fund to pay compensation for losses, damage and injury resulting directly from Iraq's invasion and occupation of Kuwait, and directed the Secretary-General to develop and present recommendations for setting up the fund as well as a commission to administer it. The Secretary-General recommended that the Commission should function under the authority of the Security Council and that it should be comprised of a Governing Council, panels of commissioners and a secretariat. By resolution 692 of 20 May 1991, the Security Council established the Commission and the United Nations Compensation Fund in accordance with the Secretary-General's report and decided to locate the Commission at the United Nations Office in Geneva. It should be noted that the Commission is not a court or an arbitral tribunal before which parties appear. It is a political organ that performs an essentially fact-finding function of examining claims, verifying their validity, evaluating losses, assessing payments and resolving disputed claims.

57. The Commission has accepted for filing claims of individuals, corporations and Governments, submitted by Governments, as well as those submitted by international organisations for individuals who were not in a position to have their claims filed by a Government. Since 1991, the Commission has received approximately 2.6 million claims seeking compensation in excess of US$ 300 billion. The Governing Council has identified six categories of claims. Claims for damage to the environment are part of Category "F" claims and are known as "F4"claims. They fall into two broad groups. The first group comprises claims for environmental damage and depletion of natural resources in the Persian Gulf region including those resulting from oil-well fires and the discharge of oil into the sea. The Commission has received 30 such claims, seeking a total of US$ 40 billion in compensation. The verification and valuation of these claims may require extensive research and monitoring. The second group of environmental claims relate to the costs of clean-up measures undertaken by Governments that provided assistance to affected countries in the region in order to alleviate damage caused by oil-well fires and oil pollution. The Commission has received 17 such claims seeking a total of US$ 23 million in compensation.

C. The International Law Commission

58. In tandem with its work on State responsibility, the International Law Commission has, since 1978, been considering the issue of strict State liability for transboundary damage arising from inherently dangerous but otherwise lawful, activities undertaken within national jurisdiction. This issue is being considered under the topic "International liability for injurious consequences arising from acts not prohibited by international law." The issue has proved highly controversial both among States and within the ILC itself, leading to a narrowing of the focus of the Commission in 1997 to the question of "Prevention" in the first instance. Consequently, at its fifty-first session in August 1999, the Commission decided to defer consideration of the question of international liability, pending completion of the second reading of the draft articles on prevention of transboundary damage from hazardous activities.

59. In 1998, at its fiftieth session, the Commission adopted on first reading a set of 17 draft articles on the sub-topic of prevention, which were then submitted to States for comments. At its fifty-second session, in May-June 2000, the Commission established a Working Group to examine the comments and observations made by States on the draft articles. On the basis of the discussion in the Working Group, the Special Rapporteur presented his third report 34/, containing a draft preamble and a revised set of draft articles on prevention, along with a recommendation that they be adopted as a framework convention. The third report also addressed questions such as the scope of the topic, its relationship with liability, the relationship between an equitable balance of interests among States concerned and the duty of prevention, as well as the duality of the regimes of liability and State responsibility. The Commission considered the report and decided to refer the draft preamble and draft articles contained therein to the Drafting Committee.

34/ See A/CN.4/510.

60. In December 1999, at its fifty-fourth session, the General Assembly, by its resolution 54/111, took note of the procedure adopted by the ILC with respect to the topic "International liability for injurious consequences arising out of acts not prohibited by international law" and requested the Commission to resume consideration of the liability aspects of the topic as soon as the second reading the draft articles on the prevention of transboundary damage from hazardous activities is finalised, taking into account developments in international law and comments from Governments. 35/

D. The Antarctic Treaty system

61. Negotiations for a liability annex to the 1991 Protocol on Environmental Protection to the Antarctic Treaty have been under way for several years. Article 16 of the Protocol provides that "…the Parties undertake to elaborate rules and procedures relating to liability for damage arising from activities taking place in the Antarctic Treaty area and covered by the Protocol." A Legal Experts Group on Liability started work on the issue in 1993. At the Twenty-first Antarctic Treaty Consultative Meeting, in 1997, the Group reported that there was lack of clarity with regard to a number of issues, including the definition of damage, the actions to be taken by operators, the reimbursement of costs, unrepaired damage and the process for the settlement of disputes. In 1998, the Twenty-second Antarctic Treaty Consultative Meeting decided that the Group of Legal Experts had ended its task by submitting its report and further negotiations of an annex or annexes on liability would take place within Working Group I.

62. In 1999, the Twenty-third Consultative Meeting affirmed its commitment to develop a liability regime under the Protocol and called for further negotiations within Working Group I. During thematic deliberations within the Group, the following themes were discussed: what damage the annex or annexes should cover; what operators should be covered; whether liability should be strict, joint and several; exemptions from liability; preventative measures, response action, remedial and restorative measures; third-party intervention; residual State liability; and responsibility to reimburse costs incurred. As a result of the thematic deliberations the following areas of convergence, among others, emerged:

(a) The approach should involve consideration of preventative measures, response action and liability;

(b) The definition of the term "operator" should include all States parties and all public or private legal entities or individuals engaged in activities in the Antarctic Treaty area and are authorized by or under the jurisdiction and control of a State party;

(c) The regime should be one of strict liability;

(d) Exemptions from liability will be understood to exist in cases of, *inter alia*, acts of God, *force majeure*, armed conflict, and acts of terrorism;

(e) When the need arises to conduct response action in order to prevent environmental damage, the State Party may request the cooperation of third parties or give its consent to third parties to take such action.

63. There were no formal discussions on the liability regime at the Twenty-fourth Antarctic Treaty Consultative Meeting, which took place in The Hague from 11 to 15 September 2000.

E. The Cartagena Protocol on Biosafety

64. Article 27 of the Cartagena Protocol requires the Conference of the Parties to the Convention on Biological Diversity serving as the meeting of the Parties to the Protocol to adopt, at its first meeting, a process for the elaboration of international rules and procedures in the field of liability and redress for damage resulting from the transboundary movements of living modified organisms, analysing and taking due account of the ongoing processes in international law on these matters. The process is supposed to be completed within four years of the first meeting of the Conference of the Parties to the Convention on

35/ See General Assembly resolution 54/111 of 9 December 1999.

Biological Diversity serving as the meeting of the Parties to the Protocol. The work plan of the Intergovernmental Committee for the Cartagena Protocol on Biosafety (ICCP), adopted by decision V/1 of the fifth meeting of the Conference of the Parties, lists liability and redress as one of the issues to be considered by the ICCP at its second meeting. In this respect, the ICCP is required to elaborate a draft recommendation on the process for elaboration of such international rules and procedures, including, *inter alia*, review of existing relevant instruments and identification of elements for liability and redress. The scope of a liability and redress regime under the Protocol is likely to be much wider than that under the Convention in view of the human-health and socio-economic dimensions of the Protocol.

F. Commission of the European Communities

65. Member States of the European Communities have been considering the development of a Community-wide environmental liability regime since 1993 in order to improve the application of the European Community Treaty and implementation of European Community environmental law. The landmarks in this process have included the issuance of a Green Paper in 1993, a joint hearing with the European Parliament in the same year, a Parliament resolution asking for an European Community directive and an opinion of the Economic and Social Committee in 1994, 36/ and a Commission decision in 1997 to produce a White Paper.

66. The Commission in February 2000 issued a White Paper on Environmental Liability. 37/ The Paper outlines the possible main features of the Community environmental liability regime as including:

(a) Coverage of both environmental damage (site contamination and damage to biological diversity) and traditional damage (harm to health and property);

(b) A closed scope of application linked with European Community environmental legislation: contaminated sites and traditional damage to be covered only if caused by an Community-regulated hazardous or potentially hazardous activity; damage to biodiversity only if protected under the Natura 2000 network;

(c) Strict liability for damage caused by inherently dangerous activities, and fault-based liability for damage to biological diversity caused by a non-dangerous activity;

(d) Commonly accepted defences and some alleviation of the plaintiff's burden of proof and some equitable relief for defendants;

(e) Liability focused on the operator in control of the activity which caused the damage;

(f) An obligation to spend the compensation paid by the polluter on environmental restoration;

(g) An approach to enhanced access to justice in environmental damage cases;

(h) Financial security for potential liabilities.

67. In the proposed scheme, liability for damage to biological diversity would be linked to relevant Community legislation to conserve biodiversity, namely the wild birds directive and the habitats directive. These directives establish a regime, to be implemented through the Natura 2000 network, of special protection of natural resources, namely those important for the conservation of biological diversity. Damage to biodiversity would cover damage to habitats, wild life or species of plants, as defined in the annexes to the directives. Only *significant damage* to biodiversity would trigger the operation of the liability regime.

68. The White Paper, after examining different options for Community action, concludes that the most appropriate option would be a framework directive providing for strict liability for damage caused

36/ See CES 226/94.

37/ See COM(2000)66 final.

by Community-regulated dangerous activities and fault-based liability for damage to biodiversity caused by non-dangerous activities. European Union institutions and interested parties are required to provide comments on the Paper and the details of the proposed European Community directive will be elaborated on the basis of such comments and relevant consultations.

IV. PROCESS FOR ADDRESSING LIABILITY AND REDRESS UNDER THE CONVENTION ON BIOLOGICAL DIVERSITY AND ISSUES FOR CONSIDERATION

69. This section examines options available to the Conference of the Parties regarding the proposed review of paragraph 2 of Article 14 of the Convention and raises issues that may need to be considered in relation to the nature and content of a liability regime under the Convention.

A. The process for the review

70. Experience from the Convention on Biological Diversity and other processes suggests a number of options regarding the process for carrying forward the work of the Conference of the Parties on this issue. First, information is critical to any further work. The Conference of the Parties has, as has been pointed out, requested Parties, Governments and relevant international organisations to submit information to the Executive Secretary on this issue. So far, the response from Parties and Governments has not been encouraging. The Conference of the Parties may wish to consider whether this is an issue that should be addressed in the national reporting process. The lukewarm response from Parties and Governments may be due to the fact that not very many countries address the issue of liability and redress for damage to biological diversity in their national and regional legal regimes. If this is the case, then it might be useful for the Conference of the Parties to consider putting in place, in collaboration with relevant organizations such as UNEP and the World Conservation Union, a mechanism for making available case studies on the issue. The recently adopted Montevideo III Programme of UNEP provides a useful framework for undertaking such studies.

71. Secondly, the Conference of the Parties could establish an ad hoc technical expert group of limited membership but geographically representative to further examine the issues relating to liability and redress in the context of the Convention. Such a group could be in the nature of the Panel of Experts on Access and Benefit-sharing established by decision IV/8 of the Conference of the Parties. As was noted earlier, initial work regarding the development of a liability annex to the Protocol on Environmental Protection to the Antarctic Treaty was undertaken by a Legal Experts Group on Liability before negotiations on the issue were transferred to Working Group I. The advantage of this approach is the fact that a technical expert group of limited membership would focus on the technical considerations regarding liability and redress for damage to biological diversity. At a later stage in the work of the group, the Conference of the Parties may wish to consider the opportunity and feasibility of constituting a more open-ended forum on the issue. Thirdly, the Conference of the Parties could establish an open-ended ad hoc working group of legal and technical experts to not only examine the issues from a technical perspective but also to build consensus on the nature and content of a liability and redress regime under the Convention. This latter option was retained under the Basel Convention with respect to the development of the Protocol on Liability and Compensation. It assumes that consensus already exists on the question of the development of such a regime.

B. Issues for consideration regarding the nature and content of a liability and redress regime

72. The survey of existing international legal instruments and on-going initiatives reveals a number of issues concerning the nature and content of a liability and redress regime that would have to be addressed, should this matter be considered within the framework of the Convention on Biological Diversity. The Workshop may wish to further consider these issues with a view to offering some guidance to the Conference of the Parties regarding the nature of a liability regime under the Convention on Biological Diversity. These issues are reviewed below under the following headings:

(a) The concept and threshold of damage;

(b) The nature of liability;

(c) Channelling liability;

(d) Exemptions from liability;

(e) The nature and scope of redress, including valuation of damage;

(f) Jurisdictional application or geographical scope;

(g) Limitation of liability in amount and time;

(h) Financial security and funds; and

(i) Jurisdiction, mutual recognition and enforcement of judgments.

(a) The concept and threshold of damage

73. In paragraph 2 of Article 14, the Convention on Biological Diversity specifically refers to "liability and redress for damage to biological diversity". However, the definition of "biological diversity" in Article 2 is very broad and almost approaches the concept of "environment" as used in the various international liability and redress regimes previously analysed. Further, the definition raises other difficulties. Damage to species, habitats and ecosystems may be fairly easy to deal with from a legal perspective. For example, as has been pointed out, the European Community White Paper underlines that damage to biological diversity "could take the form of damage to habitats, wildlife or species of plants". But the Convention's definition goes beyond habitats and species and subsumes the idea of "variability". In this regard, would damage to biological diversity encompass injury to "variability among living organisms"? If so, how would this be quantified and what would be the threshold of damage entailing liability?

74. As we have seen, the concept of damage in the existing international legal regimes has gradually evolved over the years to include "environmental damage". Nevertheless, "environmental damage" is restricted to three categories of losses: the costs of measures of reinstatement of impaired environment; loss of income deriving from an economic interest in any use or enjoyment of the environment, incurred as a result of the impairment of the environment; and the costs of measures undertaken or to be undertaken to prevent environmental damage. 38/ As regards reinstatement and restoration measures questions arise, for example, as to whether it is desirable to restore the environment to its exact previous position or whether natural regeneration should be allowed to take its course. The UNEP Working Group felt, in this respect, that "the basic aim should be to reinstate the ecologically significant functions of injured resources and the associated public uses and amenities supported by such functions".

75. It is doubtful whether pure ecological damage would be recoverable where the definition of damage is restricted to the costs of measures to reinstate or restore the damaged or destroyed components of the environment. The developments in treaty law regarding environmental damage point to a recognition that the environment represents a value on its own merit that is subject to legal protection. In the *Patmos Case*, 39/ the Messina Court of Appeals awarded the Italian Government damages not only for the cost of clean-up measures due to oil pollution but also for ecological damage arising from the affected beneficial uses of the marine environment, for example, as source of food, for recreation or scientific research. The court asserted that the fact that such losses were difficult to compute was no bar to compensation.

38/ See, for example, the 1997 Vienna Amending Protocol to the 1963 Vienna Convention on Civil Liability for Nuclear Damage; the HNS Convention; and the Basel Protocol.

39/ Messina Court of Appeals, 1989, cited in F. O. Vicunna, *op. cit.*

76. The UNEP Working Group draws a distinction between "environment damage", which refers to "impairment of the environment", and "depletion of natural resources", which it deems a quantitative notion relating to the reduction in amount, or a qualitative notion relating to the realizable commercial value, of natural assets which occur in their natural state and which have a primarily commercial use or commercial value. UNCC has also, in its definition of categories of claims, made the same distinction. In the field of biological diversity, it may be necessary to investigate whether such a distinction would be useful in addressing the issue of liability and redress.

77. A related problem is the question of the threshold of damage. It is generally agreed that in order for liability to arise damage needs to exceed a *de minimis* threshold. The European Commission White Paper stresses that not every change to the quality or quantity of natural resources should be qualified as damage giving rise to liability. The European Commission would appear to support the view that for the well functioning of the liability regime, it might be beneficial to identify threshold criteria below which the responsible party will not be liable. The White Paper consequently contemplates only *significant* damage to biological diversity. Similarly, the Lugano Convention refers to activities "posing significant risk to man, the environment or property". In the same vein, the 1997 Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage provides for liability for impaired environment "unless such impairment is insignificant". Article 7, paragraph 1, of the 1997 United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses provides that watercourse States shall take all appropriate measures to prevent "significant harm" to other watercourse States. The term "significant" is normally used to refer to harm which is more than minor but not necessarily serious. The UNEP Working Group refers to "a change, which has a measurable adverse impact on the quality of a particular environment or any of its components". The text of the Convention on Biological Diversity already provides some guidance in dealing with the issue of the threshold of damage. In several instances it refers to "significant reduction or loss" of biological diversity and "significant adverse impacts" on biological diversity. In effect, a threshold of "significant damage" to biological diversity would fit neatly with the language of the Convention.

(b) The nature of liability

78. As we have seen, a preponderant number of existing international treaties establish a system of strict liability. Strict liability refers to liability without fault. In effect, the victim need not prove the fault of the actor, in the sense of wrongful intent, recklessness or negligence. All that is required is a causal link between the act and the resultant damage. The principle of strict liability developed in most legal systems to deal with the inevitable harmful consequences of dangerous but socially beneficial activities. It was felt that the person who engages in an inherently dangerous activity should bear the cost of damage caused by such an activity rather the victim or society at large. A strict liability regime has one important advantage: in many modern activities it would be very difficult for a victim to prove fault on the part of an operator. Strict liability alleviates the burden that would otherwise weigh upon a victim that has suffered damage. All the instruments examined, however, contain a limited number of exemptions or defences from liability. In effect, liability is strict but not absolute. The only case of absolute liability is the regime established by the 1972 Convention on Liability for Damage caused by Space Objects.

79. The Basel Protocol establishes both a strict and fault-based liability system. However, even in this case, the dominant regime is one of strict liability. The fault-based liability imposed under Article 5 is expressed to be without prejudice to the regime of strict liability and applies only in cases where a person causes or contributes to damage through lack of compliance with the provisions implementing the Basel Convention or by his wrongful intentional, reckless or negligent acts or omissions. The European Commission White Paper contemplates a fault-based liability system for damage to biological diversity if such damage is caused by a non-dangerous activity. Damage to biological diversity arising from dangerous activities would conceivably fall under the general strict liability regime for environmental

damage proposed for inherently dangerous activities. The Workshop may wish to consider whether such a distinction would be relevant in the context of the Convention on Biological Diversity.

(c) Channelling liability

80. Most of the international legal instruments examined channel liability to a clearly identifiable person or persons. Generally, this is the "operator" of the activity causing damage, that is, the person who has the operational control of the activity at the time of the incident causing damage. Thus, the nuclear liability instruments impose liability on the operator of the nuclear installation; the oil pollution instruments on the owner of the ship at the time of the pollution incident; the HNS Convention on the owner of the ship transporting hazardous and noxious substances; the Lugano Convention on the operator of the activity causing environmental damage; and the Basel Protocol on the notifier, disposer, exporter, importer or re-importer of hazardous wastes and other wastes. In all these cases, however, the imposition of liability on the operator is without prejudice to any recourse he might have against third parties.

81. In a growing number of cases, international legal instruments also contemplate subsidiary State liability to complement the liability of the operator. Such subsidiary State liability has taken a number of forms: from systems where the State is required to pay certain sums into funds which are drawn upon to satisfy liability claims; 40/ through those where the State is held liable when the operator has failed to provide adequate compensation under the liability regime; 41/ to those where the State is liable beyond the maximum limit of operator liability. 42/ However, the only instrument that establishes *original* State liability is the Space Objects Convention. In this case, it is the "launching State", defined as the State which launches or procures the launching or from whose territory an object is launched, that is liable. An interesting variation is provided by the Convention on the Regulation of Antarctic Mineral Resource Activities (CRAMRA), 1988, where a "Sponsoring State" which is remiss in its obligations to supervise the operator is strictly liable for the portion of the damage, which remains unsatisfied by the operator. 43/

82. The issue of who would be liable under a liability regime within the framework of the Convention on Biological Diversity is a crucial one. International practice already demonstrates a significant bias towards *civil* liability regimes. Nevertheless, the provisions of the Convention may be interpreted as imposing an obligation on each Party to ensure that activities within its jurisdiction or control do not cause damage to the biological diversity of other States or in areas beyond the limits of national jurisdiction. 44/ Would it not be consistent with the general principles of international law if the breach of such an obligation were to entail some form of *original* State liability for damage to biological diversity?

(d) Exemptions from liability

83. As has been stated previously, the strict liability regimes in force do allow a limited number of exemptions from liability. In general, these relate to cases where damage has been occasioned by or through events and situations beyond the control of the operator. These include cases of an act of God; an act of war, hostilities, civil war or insurrection; a natural phenomenon of an exceptional, inevitable and irresistible character; and an act or omission of a third party. It is the availability of such exemptions or defences that distinguishes strict from absolute liability regimes.

40/ See, for example, the 1971 Oil Fund Convention and the HNS Convention.

41/ See, for example, the 1963 Vienna Convention.

42/ See the 1963 Brussels Supplementary Convention; the 1997 Vienna Amending Protocol.

43/ Article 8(3).

44/ Article 3 as read with Article 4.

(e) The nature and scope of redress, including valuation of damage

84. Article 14, paragraph 2, of the Convention on Biological Diversity provides that redress measures should include restoration and compensation. As we have noted earlier, in general public international law, the defendant is required to make full reparation for the damage caused. Reparation can take the form of restitution or compensation. Restitution in the context of environmental damage would encompass measures of restoration or reinstatement. Several of the instruments examined do provide for such measures. For example, the 1997 Vienna Amending Protocol defines damage as including the costs of measures of reinstatement of impaired environment. It further provides that measures of reinstatement are "any reasonable measures…which aim to reinstate or restore damaged or destroyed components of the environment or to introduce, where reasonable, the equivalent of these components into the environment" (article 2, paragraph 4). Where restitution is not possible or inadequate, then monetary compensation would be necessary. In the *Patmos Case*, for example, the Messina Appeals Court, in Italy, awarded the Government of Italy not only damages to cover the costs of clean-up measures but also for pure ecological damage (that is, damage not associated with injury to some economic interest) relating to the reduction in fish stocks and other beneficial uses of the marine environment such as recreation and scientific research. However, it may be necessary, in this regard, to contemplate the possibility of punitive damages since monetary compensation alone might act as a perverse incentive.

85. A related issue is the valuation of environmental damage. Economic valuation of environmental damage is especially important for cases where restoration or reinstatement is not feasible. But even where these are possible, valuation is essential in order to avoid disproportionate restoration costs. The European Commission White Paper recommends that where restoration is technically not possible, the valuation of the natural resource has to be based on the costs of alternative solutions, aiming at the establishment of natural resources equivalent to the destroyed natural resources. In arriving at the amount of compensation payable for pure ecological damage, the court in the *Patmos Case* resorted to principles of equity taking as a basis, *inter alia,* the reduction in fish stocks calculated by experts.

86. As regards damage to biological diversity, there are conceivably many situations where restoration or reinstatement may not be feasible. The cases of endemic species or unique ecosystems are good examples. In such cases, it would be manifestly unjust not to pay monetary compensation for the loss suffered, especially if the species or ecosystems played an important role in the socio-economic life of the inhabitants of the affected State.

(f) Jurisdictional application and geographical scope

87. The geographical scope of application of the liability and redress regimes analysed is expressly circumscribed. In general, the regimes apply only in respect of either damage caused or incident occurring in the territory of a contracting State. However, in an important number of instances there are no jurisdictional limitations as regards preventive measures. This latter fact is quite crucial in the conservation of environmental resources located in areas beyond the limits of national jurisdiction. The term "territory" in most cases is defined to include the exclusive economic zone of a contracting State. Thus, the 1960 Paris Convention does not apply to nuclear damage suffered in the territory of a non-contracting State, unless otherwise provided by legislation of a Contracting Installation State; and the 1969 Oil Pollution Liability Convention and its 1992 Amendment apply only to pollution damage suffered in the territory of a contracting State, including its exclusive economic zone. There are, however, important variations to this approach. The Basel Protocol is expressed to apply only to damage suffered in an area under the national jurisdiction of a contracting State, but with two significant exceptions: first, as regards damage to person or property or costs of preventive measures, the Protocol applies to areas beyond the limits of national jurisdiction and, secondly, the Protocol applies to damage suffered in an area under the jurisdiction of a transit non-contracting State as long as such a State appears in annex A to the Protocol. The 1989 Convention on Civil Liability caused during the Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels has the most restrictive regime. It applies

only to damage sustained in the territory of a contracting State and caused by an incident occurring in the territory of a contracting State. Nevertheless, it is still applicable to preventive measures *wherever* taken. The Lugano Convention has the broadest scope of application: as long as the incident causing damage occurs in the territory of a contracting State, the Convention shall apply regardless of where the damage is suffered. Moreover, the Convention shall apply when the incident occurs *outside* the territory of a contracting State and the conflict-of-law rules lead to the application of the law in force in the territory of a contracting State.

88. Article 4 of the Convention on Biological Diversity already defines the jurisdictional scope of the Convention which any liability regime developed under it must perforce take into consideration. The provisions of the Convention apply, in relation to each contracting Party: (a) in the case of components of biological diversity, in areas within the limits of national jurisdiction; and (b) in the case of processes and activities, regardless of where their effects occur, carried out under its jurisdiction or control, within the area of its national jurisdiction or beyond the limits of national jurisdiction. Article 5 further calls on contracting Parties to cooperate in respect of areas beyond national jurisdiction for the conservation and sustainable use of biological diversity**.** In view of Articles 3 and 4 of the Convention, an obligation to ensure that activities under the jurisdiction or control of a Party do not cause damage to the biological diversity of other States or of areas beyond the limits of national jurisdiction does arise. The breach of this obligation ought to entail the liability of the Party not only with respect to damage to the biological diversity of other Parties but also with respect to damage to the biological diversity of non-Parties and of the areas outside the limits of national jurisdiction. With respect to the biological diversity of areas beyond the limits of national jurisdiction the question remains as to whether a Contracting State would be entitled to bring a claim for redress in case of damage.

(g) Limitation of liability in amount and time

89. Liability under many of the existing regimes is strict but limited both in amount and time. The justification is the need for balance: whereas it is necessary to guarantee prompt and adequate compensation for victims of damage, it is also necessary not to unduly impose onerous financial burdens on legitimate economic activity. Thus, the total amount of compensation that can be paid in respect of damage arising from any one incident is limited to specified amounts, expressed in special drawing rights as defined by the International Monetary Fund. A notable exception in this regard is the Lugano Convention, which defines no such limits. It is important to note that there may be need to review such ceilings regularly since they do become outdated over time. The financial ceilings imposed by both the 1960 Paris Convention and the 1963 Vienna Convention have had to be revised upwards through amendments to take into consideration the potential magnitude of nuclear damage.

90. Time limits within which claims for compensation can be instituted have also been defined in all the instruments examined. The periods, however, vary considerably: 30 years under the Vienna Amending Protocol; three years under the HNS Convention; five years under the Basel Protocol; and one year under the Space Objects Convention. An important consideration to bear in mind in this respect is the fact that environmental interferences often have long-term effects. For example, the nature and magnitude of damage to species, habitats and ecosystems may not become apparent in the short-term. Any limitations regarding the time within which actions for redress may be instituted under a liability regime within the framework of the Convention must take cognizance of this fact.

(h) Financial security and funds

91. In order to guarantee adequate compensation for victims of damage, the international liability regimes oblige the "operator" to maintain insurance or other form of financial security to the extent of his maximum liability. Under the nuclear-liability treaties, for example, the operator of a nuclear installation is required to maintain insurance or other financial security corresponding to his maximum liability under the regimes. Where the insurance or other financial security is not adequate the "Installation State" is

obliged to ensure payment of compensation arising from the shortfall. It is only the Lugano Convention that leaves discretion over this issue to contracting parties depending on national circumstances and the nature of the environmentally dangerous activity. Article 12 simply enjoins each Party to "ensure that where appropriate, taking due account of the risks of the activity, operators conducting a dangerous activity on its territory be required to participate in a financial security scheme or to have and maintain a financial guarantee up to a certain limit, of such type and terms as specified by internal law, to cover the liability under this Convention".

92. Both the Oil Fund Convention and the HNS Convention create international indemnification funds from which supplementary compensation can be paid to victims in cases where the operator is unable to meet his obligations or the damage exceeds the limit of operator liability established by the relevant regime. The Basel Protocol, for its part, provides that where compensation under the Protocol does not cover the full extent of the damage, additional and supplementary measures aimed at ensuring adequate and prompt compensation may be taken under existing mechanisms.

(i) Jurisdiction, mutual recognition and enforcement of judgments

93. An important issue that must be addressed in any liability and redress regime concerns the question of jurisdiction. This question has two aspects: first, determining the competent court to entertain claims for compensation; and, secondly, ensuring the recognition and enforcement of judgments arrived at by such a competent court in the territories of other contracting parties. Victims of damage must be certain of the court or courts that are competent to entertain their claims. The fact that there may be numerous victims from a single incident also makes it imperative that only one court should have jurisdiction over claims from any one incident so as to be able to apportion compensation, where appropriate, among the victims. A multiplicity of claims in diverse jurisdictions does not create certainty or efficiency in the judicial processing of claims for compensation. Once judgment is delivered, it should be recognized as final and binding in the respective territories of contracting States, and a victim should be able to enforce it in any of those territories.

94. This issue is dealt with in almost identical terms in all the instruments reviewed. In a large number of cases, in the first instance, jurisdiction over actions for compensation lie with the courts of the contracting party in whose territory the incident giving rise to liability has occurred. In the second instance, the competent court is different when the incident occurs outside the jurisdiction of any State Party. Under the nuclear-liability agreements, for example, if the incident occurs outside the jurisdiction of any contracting State, jurisdiction over actions lies with the courts of the "Installation State". Similarly, under the HNS Convention, jurisdiction regarding actions for incidents occurring outside the jurisdiction of any State party lie with the courts of either the flag State party, the State party where the owner has his habitual residence or principal place of business, or a State party where a fund for compensation has been constituted by the owner. The Basel Protocol leaves the choice of which competent court to seize to the victim. Jurisdiction over actions for compensation under the Protocol lie variously with the courts of the contracting party where the damage was suffered; the incident occurred; or the defendant has his habitual residence or principal place of business.

95. In cases where courts of different parties have been seized of related actions, any court other than the court first seized is required to stay its proceedings until the jurisdiction of the first court is established. The purpose of this requirement is to allow the consolidation of related actions and single determination by one competent court. The agreements further provide that, where a judgment has been entered by a court of competent jurisdiction that is enforceable in the State of origin and is no longer subject to ordinary forms of review, the judgment is to be recognized and enforced in the territory of any contracting party. This provision obviates the need for claimants to institute further proceedings in the courts of other contracting States in order to secure their compensation.

V. RECOMMENDATIONS

96. The Workshop is invited to further consider the issues raised in this document with a view to drawing appropriate conclusions, which might assist the Conference of the Parties at its sixth meeting in its consideration of a process for reviewing paragraph 2 of Article 14 of the Convention on Biological Diversity. These conclusions could focus on:

(a) The process for reviewing paragraph 2 of Article 14 of the Convention, including the terms of reference for the establishment of an ad hoc technical expert group; and

(b) Possible elements for a liability and redress regime within the framework of the Convention.
