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GROUP OF LEGAL AND TECHNICAL EXPERTS ON LIABILITY AND REDRESS IN THE CONTEXT OF ARTICLE 14(2) OF THE CONVENTION ON BIOLOGICAL DIVERSITY
Montreal, 12-14 October 2005
Item 3 of the provisional agenda*

LIABILITY AND REDRESS IN THE CONTEXT OF PARAGRAPH 2 OF ARTICLE 14 OF THE CONVENTION ON BIOLOGICAL DIVERSITY: AN ANALYSIS OF PERTINENT ISSUES

Note by the Executive Secretary

I. INTRODUCTION

1. The Conference of the Parties has considered the issue of liability and redress in the context of paragraph 2 of Article 14 of the Convention at its three last meetings. At its fourth and fifth meetings, the Conference of the Parties focused largely on information gathering with a view to enabling the Conference to arrive at an informed decision on how to further address this issue at subsequent meetings. At its fifth meeting, in decision V/18, the Conference of the Parties 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. The Workshop was held in Paris from 18-20 June 2001, and its report was submitted to the sixth meeting of the Conference of the Parties. 1/

2. The Paris Workshop's deliberations focused on the assessment of the status of existing national and international law; the scope of paragraph 2 of Article 14; the main situations and activities to be considered in the context of the Convention; and the means and process for the implementation of paragraph 2 of Article 14. In its recommendations to the Conference of the Parties regarding the process for the review of paragraph 2 of Article 14, the Workshop recommended further information-gathering as well as further analysis of key issues relevant to liability and redress in the context of paragraph 2 of

* UNEP/CBD/EG-L&R/1/1.

1/ UNEP/CBD/WS-L&R/3.

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Article 14 of the Convention. It also proposed the convening of a legal and technical expert group to assist the Conference of the Parties in its task under paragraph 2 of Article 14.

3. At its sixth meeting, the Conference of the Parties by decision VI/11, *inter alia*, took note of the report of the Paris workshop and, on the basis of the recommendations of the Workshop, requested the Executive Secretary to convene a group of legal and technical experts composed of government nominated experts and including observers from relevant international organizations, including non-governmental organizations and convention secretariats. The mandate of the group, as set out in paragraph 1 of the decision, is to review the information gathered by the Executive Secretary in accordance with paragraph 2 and to conduct further analysis of pertinent issues relating to liability and redress in the context of paragraph 2 of Article 14 of the Convention, and in particular:

(a) Clarifying basic concepts and developing definitions relevant to paragraph 2 of Article 14 (such as the concept of damage to biological diversity, its valuation, classification, and its relationship with environmental damage, the meaning of "purely internal matter");

(b) Proposing the possible introduction of elements, as appropriate, to address specifically liability and redress relating to damage to biological diversity into existing liability and redress regimes;

(c) Examining the appropriateness of a liability and redress regime under the Convention on Biological Diversity, as well as exploring issues relating to restoration and compensation;

(d) Analysing activities and situations that contribute to damage to biological diversity, including situations of potential concern; and

(e) Considering preventive measures on the basis of the responsibility recognized under Article 3 of the Convention.

4. In paragraph 2 of decision VI/11, the Conference of the Parties requested the Executive Secretary to continue collecting relevant information and to make this information available prior to convening the group of legal and technical experts. The information gathering is required to focus on, *inter alia*, updating the documentation on sectoral international and regional legal instruments dealing with activities which may cause damage to biological diversity, as well as developments in private international law; and case-studies pertaining to transboundary damage to biological diversity including but not limited to case-law. This information has been made available by the Executive Secretary in documents UNEP/CBD/EG-L&R/1/INF/1 and UNEP/CBD/EG-L&R/1/INF/2.

5. In the same paragraph, the Conference of the Parties requested the Executive Secretary to undertake further analysis relating to the coverage of existing international regimes regarding damage to biological diversity; activities or situations causing damage, including situations of potential concern and whether they can be effectively addressed by means of a liability and redress regime; and concepts and definitions relevant to paragraph 2 of Article 14. The Executive Secretary has prepared the present note in response to this request and with a view to enabling the Group of Legal and Technical Experts to address the issues specified in its mandate. Section II of the document examines some concepts and definitions relevant to paragraph 2 of Article 14; section III describes, on the basis of case-studies and case law, some of the activities and situations causing damage to biological diversity, including situations of potential concern; section IV analyses the coverage of existing international legal regimes regarding damage to biological diversity; and section V provides recommendations for the consideration of the Group of Legal and Technical Experts.

II. CONCEPTS AND DEFINITIONS RELEVANT TO PARAGRAPH 2 OF ARTICLE 14

6. The Paris workshop identified a number of concepts and terms relevant to paragraph 2 of Article 14 of the Convention that need further clarification. 2/ These include the concept of "State responsibility" and how it differs from "liability"; the concept of "damage to biological diversity" and how it differs from "environmental liability"; the concept of "biological diversity"; the concept of "threshold", in terms of both the risk posed and the damage; the phrase "except where such liability is a purely internal matter" in paragraph 2 of Article 14; and the terms "restoration" and "compensation". As indicated in the preceding section, the Conference of the Parties has also, in paragraph 1 of decision VI/11, flagged a number of concepts that need further clarification.

A. State responsibility and international liability

7. It is a basic principle of international law that a breach of international law by a State entails its international responsibility. The International Law Commission restated this fundamental principle in its report to the fifty-sixth session of the United Nations General Assembly on "Responsibility of States for internationally wrongful acts", which contained draft articles on the topic. 3/ Article 1 provides that "every internationally wrongful act of a State entails the international responsibility of that State." The act or omission must be attributable to the State under international law and must constitute a breach of an international legal obligation under either a treaty in force or any other rules of international law that may be applicable. 4/

8. 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*, 5/ 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". It was restated by the International Court of Justice (ICJ) in the 1949 *Corfu Channel Case*, 6/ 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. 7/ 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". 8/

9. The general obligation upon States with respect to transboundary environmental harm was reaffirmed in principle 2 of the 1992 Rio Declaration on Environment and Development, which asserts 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 has been incorporated, in identical terms, in a number of multilateral environmental agreements,

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2/ See UNEP/CBD/WS-L&R/3.

3/ See the report of the International Law Commission on the work of its fifty-third session, *Official Records of the General Assembly, Fifty-Sixth Session, Supplement No. 10 (A/56/10).*

4/ See Article 2 of the ILC articles on "Responsibility of States for internationally wrongful acts", ibid; *United States Diplomatic and Consular Staff in Tehran, I. C. J. Reports 1980,* p. 3.

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

6/ 1949 ICJ Rep. 4.

7/ 1957 I.L.R. 101.

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

including in Article 3 of the 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.*

10. 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 that breaches its international obligations has a duty to right the wrong committed. The Permanent Court of International Justice (PCIJ) clearly stated in the *Chorzow Factory Case* 9/ 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*) 10/ 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.

11. Besides classic *responsibility*, anchored as it is in an internationally wrongful act of a State, contemporary technological and industrial development has led to the emergence of the concept of international *liability* focusing specifically on reparation for harm arising from *acts not prohibited by international law.* Technological and industrial developments have engendered activities which, though legitimate and beneficial, embody an inherent risk of transboundary harm. The new concept is concerned more with reparation of loss or injury that may arise from such activities rather than the wrongfulness of the conduct of the State causing the damage. This new concept of liability is considered as complementary to the classic responsibility of States for wrongful acts. It has been affirmed that the term "*responsibility*" should be used only in connection with internationally wrongful acts and that with reference to the possible injurious consequences arising out of certain lawful activities, the more suitable term "*liability*" should be used. 11/ *Liability*, in this context, denotes the duty to compensate damage caused without wrongdoing.

12. The concept is of conventional origin. As the International Law Commission has pointed out, it is to be found in a large and fast-growing range of treaty practice "establishing the conditions upon which particular activities may be conducted without engaging the responsibility of the source State for wrongfulness, even if the conduct of the activity gives rise to transboundary loss or injury". 12/ The relevant treaties were reviewed by the Executive Secretary in a note prepared for the Paris Workshop (UNEP/CBD/WS-L&R/2).

13. The International Law Commission has worked on the topic of State responsibility since 1955. At its fifty-third session, in 2001, the Commission considered the fourth report of the Special Rapporteur on the topic, subsequently re-entitled "Responsibility of States for internationally wrongful acts". It completed the second reading of the draft articles prepared under the topic. The Commission decided to recommend to the General Assembly that it take note in a resolution of the draft articles on responsibility of States for internationally wrongful acts, and that it annex the draft articles to the resolution. The Commission decided further to recommend that the General Assembly consider, at a later stage, and in the light of the importance of the topic, the possibility of convening an international conference of plenipotentiaries to examine the draft articles with a view to adopting a convention on the topic. In resolution 56/83, on responsibility of States for internationally wrongful acts, the Assembly "takes note

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

10/ ICJ, 25 September 1997, General List No. 92.

11/ *Yearbook…1973,* vol. 1, p. 211, 1243rd meeting, para. 37.

12/ See document A/CN.4/373, ILC, *Fourth report on international liability for injurious consequences arising from acts not prohibited by international law,* by Mr. Robert Q. Quentin-Baxter, Special Rapporteur.

of the articles on responsibility of States for internationally wrongful acts, presented by the International Law Commission, the text of which is annexed to the present resolution, and commends them to attention of Governments without prejudice to the question of their future adoption or other appropriate action". The General Assembly further decided to include in the provisional agenda of its fifty-ninth session an item entitled "Responsibility of States for internationally wrongful acts". 13/ At its fifty-ninth session, by its resolution 59/35 of 2 December 2004, the General Assembly commended once again the Articles to the attention of Governments, without prejudice to the question of their future adoption or other appropriate action, and requested the Secretary General to invite Governments to submit their written comments on any future action regarding the Articles.

14. In tandem with its work on State responsibility, the International Law Commission has, since 1978, been considering the issue of international 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.

15. At its fifty-third session, in 2001, the Commission completed the second reading of the draft articles prepared under the topic of "International liability for injurious consequences arising from acts not prohibited by international law (prevention of transboundary damage from hazardous activities)", and decided to recommend to the General Assembly the elaboration of a convention by the General Assembly on the basis of the draft articles. At its fifty-sixth session, following the consideration of the report of the Commission, the General Assembly in resolution 56/82, on the report of the International Law Commission, *inter alia*, expressed its appreciation "for the valuable work done on the issue of prevention on the topic of 'International liability for injurious consequences arising out of acts not prohibited by international law' (prevention of transboundary harm from hazardous activities)"14/. The resolution further requested the Commission to resume, during its fifty-fourth session in 2002, its consideration of the liability aspects of the topic, which it had suspended in 1997. At its fifty-fourth session, in 2002, the Commission resumed its consideration of the second part of the topic under the title "International liability for injurious consequences arising out of acts not prohibited by international law (international liability in case of loss from transboundary harm arising out of hazardous activities)". At its fifty-sixth session, in 2004, the Commission adopted on first reading a set of eight draft principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities. It further decided to transmit the draft principles, through the Secretary-General, to Governments for comments and observations, with the request that such comments and observations be submitted to the Secretary-General by 1 January 2006. At its fifty-ninth session, by its resolution 59/41 of 2 December 2004, the General Assembly expressed its appreciation to the Commission for the completion of the first reading of the draft principles on the allocation of loss in the case of transboundary harm arising out of hazardous activities and drew the attention of Governments to the importance for the Commission of having their views on the topic.

13/ See the report of the International Law Commission on the work of its fifty-third session, *Official Records of the General Assembly, Fifty-Sixth Session, Supplement No. 10 (A/56/10).*

14/ Ibid.

B. "Damage to biological diversity" and "environmental damage"

16. In paragraph 2 of Article 14, the Convention on Biological Diversity specifically refers to liability and redress for "damage to biological diversity". The term "biological diversity" is defined in Article 2 as "the variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological processes of which they are part; this includes diversity within species, between species and of ecosystems". In the context of the Convention, "damage to biological diversity" would therefore not be limited to injury to species, habitats and ecosystems but would also encompass injury to "variability among living organisms". Such a broad concept raises important questions from a legal perspective. For example, with respect to "variability" how would damage be quantified and what would be the threshold of damage that would trigger liability? It is for these reasons that the European Commission rejected the definition of biodiversity in the Convention as a working concept in its Proposal for a Directive on Environmental Liability. 15/ Instead, under the Proposal "damage to biological diversity" is restricted to damage to any species or habitat which is protected under the Wild Birds Directive (79/409/EEC), the Habitats Directive (92/43/EEC) or under any national law. 16/ This approach has been incorporated in the 2004 Directive adopted by the European Parliament and Council on environmental liability with regard to the prevention and remedying of environmental damage. 17/ Under Article 2, "environmental damage" means, *inter alia,* "damage to protected species and natural habitats, which is any damage that has significant adverse effects on reaching or maintaining the favourable conservation status of such habitats or species".

17. The concept of damage in the existing international civil liability legal regimes has gradually evolved over the years to include "environmental damage". The 1993 Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment ("The Lugano Convention"), 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 for Damage resulting from Transboundary Movements of Hazardous Wastes and their Disposal, for example, provide for damage for the "impairment of the environment" besides traditional damage. The Lugano Convention defines the term "environment" broadly as 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 cultural heritage; and characteristic aspects of the landscape". 18/ The UNEP Working Group on Liability and Compensation for Environmental Damage arising from Military Activities had a similar definition in its report with the addition of two elements: the "the ecosystem formed by the interaction" of the components of the environment and "environmental amenity". 19/ The UNEP Working Group in its report concluded that the term "environmental damage" broadly refers to the "impairment of the environment, that is to say, a change which has a measurable adverse 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 life and a viable ecological balance". 20/ As defined, the concept of "environmental damage" is broad enough to subsume "damage to biological diversity" but without the idea of "variability" so central to the latter.

15/ See Commission of the European Communities, *Proposal for a Directive of the European Parliament and Council on Environmental Liability with regard to the Prevention and Restoration of Environmental Damage,* COM (2002) 17, p. 17.

16/ Article 2 of the proposed Directive.

17/ EC Directive 2004/35/CE.

18/ Article 2.

19/ See UNEP, *Report of the Working Group of Experts on Liability and Compensation for Environmental Damage arising from Military Activities,* UNEP, Nairobi, 1996.

20/ *Ibid.*, paragraph 45.

18. In the existing international civil liability regimes redress for "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. 21/

C. The concept of threshold of damage

19. It is generally agreed that in order for liability to arise damage needs to exceed a *de minimis* threshold. The European Commission White Paper on Environmental Liability stresses that not every change to the quality or quantity of natural resources should be qualified as damage giving rise to liability. 22/ The European Commission would appear to support the view that for the well functioning of a liability regime, it might be beneficial to identify threshold criteria below which the responsible party will not be liable. The European Community directive on environmental liability consequently variously refers to damage that "has significant adverse effects on reaching or maintaining the favourable conservation status of such habitats or species" or "adversely affects the ecological…status of the waters concerned…." 23/ 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. A threshold of "significant damage" to biological diversity would, therefore, be consistent with the text the Convention. In determining whether there is significant damage a number of considerations are critical: the extent and magnitude of the impact; the duration of the impact, i.e. whether short or long-term; whether impacts are reversible or irreversible; and the sensitivity and rarity of the resources impacted. In this respect, the European Community directive provides that "the significance of any damage that has adverse effects on reaching or maintaining the favourable conservation status of habitats or species has to be assessed by reference to the conservation status at the time of damage, the services provided by the amenities they produce and their capacity for natural regeneration". 24/

D. Restoration and compensation

20. Article 14, paragraph 2, of the Convention on Biological Diversity provides that redress measures should include restoration and compensation. As has been pointed out above, 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. A number of the international civil liability conventions do provide for such measures. For example, the 1997 Vienna Amending Protocol to the 1963 Vienna Convention on Civil Liability for Nuclear Damage defines damage as including the costs of

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21/ 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.

22/ See COM (2000) 66 final.

23/ See Directive 2004/35/CE, Article 2.

24/ Ibid, Annex I.

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."25/ The European Community proposal for a directive on environmental liability defines restoration as "any action, or combination of actions, to restore, rehabilitate, replace, or acquire the equivalent of damaged natural resources and/or services" and includes "primary restoration" (return of natural resources to baseline condition) and "compensatory restoration" (replacement in different locality and compensation for the so-called interim losses pending replacement). 26/ The European Community directive adopted in 2004 does not define "restoration", but defines "remedial measures" "as any action, or combination of actions, including mitigating or interim measures to restore, rehabilitate or replace damaged natural resources and/or impaired services, or to provide an equivalent alternative to those resources or services as foreseen in annex II". 27/ Annex II provides that remedying environmental damage in relation to water or protected species or natural habitats "is achieved through the restoration of the environment to its baseline condition by way of primary, complementary and compensatory remediation". 28/

21. Where restitution is not possible or inadequate, then monetary or in-kindcompensation would be necessary. 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 appear to be manifestly unjust not to compensate 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.

E. Valuation of damage

22. A related problem is how to value damage, even where recoverable damage is limited to the costs of measures to reinstate or restore the damaged or destroyed components of the environment as is the case in most international civil liability regimes. In the lead-up to the proposed Community directive on environmental liability, the European Commission commissioned a study on the valuation and restoration of damage to natural resources. 29/ The report outlines the critical steps and the factors to be taken into consideration in the assessment of damage and its valuation. With regard to assessment of damage, these include:

(a) The status of the resource prior to the incident: ecological importance, condition, status and usage;

(b) The scale of damage: in terms of geographical scale, nature of loss (habitat/species), acuteness and chronic nature;

(c) Impact assessment: reversible or irreversible.

23. With regard to its valuation the report underlines the need for an inventory of possible restoration options and the cost-benefit analysis of each option; the selection of primary restoration options; and the estimation of restoration costs; and finally, the identification of compensatory restoration options which address ways for estimating and rectifying damage through monetary or resource compensation.

25/ Article 2(4).

26/ See Article 2 and annex II.

27/ European Community Directive 2004/35/CE, Article 2.

28/ Ibid.

29/ See European Commission, *Study on the Valuation and Restoration of Damage to Natural Resources for the Purpose of Environmental Liability*, EC, May 2001.

24. The European Community directive adopted in 2004 foresees the preferential use of the so-called resource-to-resource or service-to-service equivalence approaches in determining the scale of complementary and compensatory remedial measures. 30/ Under these approaches, actions that provide natural resources and/or services of the same type, quality and quantity as those damaged shall be considered first. Where this is not possible, then alternative natural resources and/or services shall be provided. For example, a reduction in quality could be offset by an increase in the quantity of remedial measures.

25. Alternative valuation techniques shall be used if it is not possible to use the first choice resource-to-resource or service-to-service equivalence approaches. 31/ The competent authority may then prescribe the method, for example monetary valuation, to determine the extent of the necessary complementary and compensatory remedial measures. The aforementioned study of the European Commission provides on overview and assessment of the different monetary valuation techniques. 32/

26. If valuation of the lost resources and/or services is practicable, but valuation of the replacement natural resources and/or services cannot be performed within a reasonable time-frame or at a reasonable cost, then the competent authority may choose remedial measures whose cost is equivalent to the estimated monetary value of the lost natural resources and/or services. In addition, the complementary and compensatory remedial measures should be so designed that they provide for additional natural resources and/or services to reflect for instance the time profile of the remedial measures. 33/ For example, the more time is needed to restore the resource to its initial environmental conditions, that is, the greater the interim losses, the greater the amount of compensatory remedial measures that will be undertaken (other things being equal).

F. "Purely internal matter"

27. Article 14, paragraph 2, provides that "the Conference of the Parties shall examine…the issue of liability and redress…for damage to biological diversity, *except where such liability is a purely internal matter"*(emphasis added). This qualification suggests that the paragraph is concerned with liability and redress for transboundary damage to biological diversity. This is because where there is no transboundary effect the issue would be addressed on the basis of national law. Where an activity harmed only the biological diversity of the country in which it took place, the only victim was the country concerned and any redress measures would be determined under domestic law. At the Paris Workshop, some experts had misgivings regarding such an interpretation and argued that since biological diversity is a "common concern of mankind" damage to biological diversity could not be defined as "a purely internal matter". 34/ Other experts viewed the "international or cross-boundary aspects" imperative for a liability regime under paragraph 2 of Article 14. From their perspective, the intention of the negotiators was to exclude any question of liability or redress that does not have transboundary ramifications.

30/ See Directive 2004/35/CE, Annex II, paragraph 1.2.2.

31/ Ibid, paragraph 1.2.3.

32/ See also UNEP/CBD/SBSTTA/11/9. In the United States, under the natural resource damage assessment (NRDA) regulations of the National Oceanic and Atmospheric Administration (NOAA), monetary valuation (the so-called value-to-value approach) is applicable when the injured and restored resources and services are not of the same type, quality, and value, and is used to calculate the value of gains from the proposed restoration actions and the value of the interim losses.

33/ Directive 2004/35/CE, Annex II, paragraph 1.2.3.

34/ See UNEP/CBD/WS-L&R/3.

III. ACTIVITIES/SITUATIONS CAUSING DAMAGE, INCLUDING SITUATIONS OF POTENTIAL CONCERN

28. The review of case-law and case-studies (UNEP/CBD/EG-L&R/INF/2), prepared for this meeting reveals a number of activities and situations which cause damage to biological diversity or have the potential of causing such damage. These activities and situations include armed conflicts, oil spills, mining, dumping of hazardous substances and wastes, and introductions of genetically modified organisms and alien invasive species.

A. Military activities

29. Military conflicts are by far one of the major causes of damage to biological diversity. The Gulf War (Kuwait/Iraq), the Peru/Ecuador border conflict, the Kashmir conflict and the Chechnya war have all had significant impacts on flora, fauna and ecosystems of the various regions. Oil fires and oil spills during the Gulf War affected birds, fish, turtles and dugongs and marine and terrestrial ecosystems. Compensation claims arising from the environmental damage caused by this war are currently being processed by the United Nations Compensation Commission. In Kashmir, the insurgency has led to massive deforestation and loss of rare species in the region. In Chechnya, shelling and missile attacks have had their significant impacts on wild life and habitats. Pollution arising from bombed oil wells and radioactive waste dumps has impacted most rivers in the region, affecting fish and other aquatic life.

B. Oil spills

30. The most dramatic cases of damage to biological diversity have been caused by oil spills. The case of the *Exxon Valdez*, though not one of the largest spills, may have been the most environmentally destructive because of the especially sensitive ecosystem affected. The clean-up measures took more than four years. Other catastrophic oil spills are the Patmos oil spill in the Strait of Messina, the Desaguadero River oil spill in Bolivia, and the more recent Jessica oil spill in the Galapagos. In all cases, significant damage to marine and aquatic flora, fauna and ecosystems was recorded.

31. A related problem is that of oil spills resulting from the exploration and exploitation of off-shore oil deposits. Although there are no recent documented incidents, except for the consequences of the Gulf War, the impact of any accidents on marine ecosystems and species can be devastating.

C. Mining activities

32. The *Mines de Potasse d'Alsace Case*, the *Trail Smelter Arbitration* and the Tisza River Spill do demonstrate the impact of transboundary water and air pollution arising from mining activities on environmental resources. In the Tisza River incident in Romania, nearly 100,000 cubic metres of cyanide and heavy metal contaminated liquid was spilled into the Lupus stream and affected aquatic life downstream as far as the Tisza and Danube rivers. The magnitude of impact on biological diversity in such incidents is particularly great in cases of transboundary water resources.

D. Dumping of hazardous substances and wastes

33. The *Red Slicks of Corsica Case*, which involved the dumping of industrial wastes into the Mediterranean Sea, demonstrates one of the major problems of environmental pollution arising from both lawful and illegal traffic in hazardous substances and wastes as well as dumping of such wastes and substances both at sea and on land. Two tankers discharged wastes in the high seas outside Italian territorial waters causing the so-called "red slicks". The result was a visible loss of biomass and decline in fish catch. This problem is more acute in developing countries where there were reports in the 1980s

and 1990s of developed-country companies shipping large amounts of hazardous wastes and substances for disposal in such countries.

E. Introduction of genetically modified organisms

34. There are increasing concerns world-wide regarding the potential impact of intentional or accidental transgenic introductions on the genetic diversity of crop landraces and wild relatives in areas of crop origin and diversity. A number of cases of out-crossing have been reported. Out-crossing of genetically modified seeds of maize in Mexico, oil-seed rape in Europe and cotton in India are examples. 35/ In addition, there is increasing evidence that such introductions also occur through international food aid programmes as has happened in the case of corn-seed in Guatemala, Nicaragua and Bolivia in 2002.

F. Introduction of invasive alien species

35. Another area of concern is the intentional or unintentional introduction of invasive alien species and their potential impact on ecosystems, habitats and other species. Currently, alien invasive species are only second to habitat loss as a cause of biodiversity loss. The IUCN Invasive Species Specialist Group has documented one hundred cases of the world's worst invasive alien species. Some of these have resulted in the extinction of native species (Nile Perch in Lake Victoria and Crazy Ant in Hawaii and Seychelles), reduction of biological diversity in aquatic ecosystems (water hyacynth world wide and Caulerpa Seaweed in the Mediterranean) and habitat loss for indigenous species (*Miconia* in Tahiti and Hawaii).

IV. THE COVERAGE OF EXISTING INTERNATIONAL REGIMES REGARDING DAMAGE TO BIOLOGICAL DIVERSITY

36. The issue of coverage of existing international legal regimes can be examined from two perspectives. In the first instance, the question is whether the concept of "damage" in these regimes encompasses "damage to biological diversity". In the second instance, the issue is the extent to which these regimes address the potential causes of damage to biological diversity, that is, coverage in terms of the activities/situations causing damage.

A. Coverage in terms of damage

37. As we have pointed out, the concept of damage in existing regimes has evolved over the years from a narrow focus on traditional damage (property and personal injury) to include "pure economic loss" and "environmental damage". For example, with regard to the nuclear liability treaties, the 1997 Protocol to Amend the 1963 Vienna Convention on Civil Liability for Nuclear Damage extended the definition of "nuclear damage" to include (i) economic loss arising from loss or damage to person or property; (ii) the costs of reinstatement of impaired environment; (iii) loss of income deriving from an economic interest in any use or enjoyment of the environment incurred as a result of significant impairment of that environment; and (iv) the costs of preventive measures. 36/ The oil pollution treaties have adopted a similar approach. Thus, although the definition of "pollution damage" in the 1969 International Convention on Civil Liability for Oil Pollution Damage is restricted to "loss or damage…by contamination resulting from escape or discharge of oil" including costs of preventive measures, the 1992 IMO Protocol to Amend the International Convention on Civil Liability for Oil Pollution Damage,

35/ See Friends of the Earth International, *GM Contamination Around the World*, Amsterdam, 2002; Commission for Environmental Cooperation of the North America Free Trade Agreement (2004): Maize and biodiversity-the effects of transgenic maize in Mexico. .

36/ Article 2.

1969, has clarified this as including the impairment of the environment and loss of profits arising from such impairment. 37/ The same approach has been adopted in the legal instruments dealing with the transport of hazardous goods and substances such as 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. On the other hand, the 1993 Lugano Convention deals specifically with environmental damage resulting from dangerous activities.

38. Given the definition of the term "environment" adopted in these instruments, it is evident that damage to specific components of biological diversity such as ecosystems, habitats and species would be included in the concept of "environmental damage". However, an important gap concerns the idea of "variability" so crucial to the concept of biological diversity. It is not certain that the assessment of damage under these instruments would go beyond assessing damage to ecosystems, habitats and species and include in its scope actual harm to "variability".

B. Coverage in terms of activities/situations causing damage

39. A number of the major activities/situations that are likely to occasion damage to biological diversity have been addressed by existing international civil liability regimes or are in the process of being addressed through the elaboration of appropriate international rules and procedures. The 1993 Lugano Convention adopted within the framework of the Council of Europe, and therefore of only regional application, addresses specific activities dangerous to the environment. Specific activities/situations and related global instruments are:

(a) *Oil spills*: The oil pollution liability and redress regime is provided by the 1969 International Convention on Civil Liability for Oil Pollution Damage, the 1971 International Convention on the Establishment of an International Fund for Compensation for Oil Pollution, and the 1977 Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources;

(b) *Nuclear damage*: The framework for liability and redress for nuclear damage is provided by the 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy, the 1963 Vienna Convention on Civil Liability for Nuclear Damage, and the 1971 Brussels Convention relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material;

(c) *Transport of hazardous substances and wastes:* Liability and redress regimes regarding these activities is provided by 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;

(d) *Introduction of genetically modified organisms:* Article 27 of the Cartagena Protocol on Biosafety provides for the elaboration under the Protocol of international rules and procedures in the field of liability and redress for damage resulting from the transboundary movement of living modified organisms. At its first meeting in February 2004, the Conference of the Parties to the Convention on Biological Diversity serving as the meeting of the Parties to the Protocol established an Open-ended Ad

37/ See Article 2.

Working Group of Legal and Technical Experts on Liability and Redress in the Context of the Cartagena Protocol on Biosafety "with a view to building understanding and consensus on the nature and contents of international rules and procedures referred to in Article 27 of the Protocol". Preparatory work for the Working Group was undertaken by a Technical Group of Experts which met in Montreal from 18 to 20 October 2004. The Group elaborated a non-exhaustive list of scenarios with a view to identifying the situations for which international rules and procedures referred to in Article 27 of the Protocol may be needed. 38/ It also identified options regarding the scope of "damage resulting from the transboundary movements of living modified organisms"; definition of damage; valuation of damage; causation; channelling of liability; standard of liability; mechanisms of financial security; standing to sue; settlement of claims; limitation of liability; and choice of instrument. It further identified issues requiring further consideration. The Open-ended Ad Hoc Working Group of Legal and Technical Experts on Liability and Redress held its first meeting held in Montreal from 30 May to 3 June 2005. It reviewed the information gathered by the Executive Secretary pursuant to the request of the Technical Group of Experts and further developed the options, approaches and issues for further consideration that had been identified by that Group. The report of the Working Group is contained in document UNEP/CBD/BS/COP-MOP/2/11.

40. The foregoing suggests that there are significant gaps in the coverage of existing international regimes in terms of activities/situations causing damage. Notable instances relate to damage resulting from military activities, the introduction of alien invasive species, and transboundary water pollution from mining and industrial activities. 39/ Whether these issues can be addressed adequately within existing principles and rules of customary international law, such as the principle of State responsibility restated in Article 3 of the Convention on Biological Diversity, or there is need for specific liability and redress regimes is a question that will require further reflection. Besides the identified gaps in coverage, it should also be noted that a significant number of the existing international legal instruments have not yet entered into force notwithstanding the long period of time that has elapsed since their adoption. These include the 1977 Convention on Civil Liability for Oil Pollution Damage resulting from Exploration for and Exploitation of Seabed Mineral Resources; the 1996 HNS Convention; the 1989 CRTD Convention; the 1993 Lugano Convention; and the 1999 Basel Protocol on Liability and Compensation for Damage resulting from Transboundary Movements of Hazardous Wastes and their Disposal.

V. RECOMMENDATIONS

41. The Group of Legal and Technical Experts may wish to further review the issues raised in the present document in the context of its mandate and develop appropriate recommendations to the Conference of the Parties as set out in paragraph 3 above and on how it may wish to further address the issue of liability and redress in the context of the Convention.

38/ See UNEP/CBD/BS/TEG-L&R/1/3.

39/ As regards transboundary water pollution from industrial accidents, it may be noted that an UNECE Intergovernmental Working Group is currently working towards a regional protocol on civil liability and compensation for damage to transboundary waters caused by industrial accidents.