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

Topic:

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

[Agenda item 5]

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

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* Incorporating documents A/CN.4/443/Corr.1 and 3.

Multilateral instruments cited in the present report

	Source
Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface (Rome, 7 October 1952)	United Nations, *Treaty Series*, vol. 310, p. 181.
Convention on Third Party Liability in the Field of Nuclear Energy (Paris, 29 July 1960) and Additional Protocol (Paris, 28 January 1964)	Ibid., vol. 956, pp. 251 and 325.
Convention on the Liability of Operators of Nuclear Ships (Brussels, 25 May 1962)	IAEA, *International Conventions on Civil Liability for Nuclear Damage*, Legal Series, No. 4, rev. ed. (Vienna, 1976), p. 34.
Convention Supplementary to the Paris Convention of 29 July 1960 on Third Party Liability in the Field of Nuclear Energy (Brussels, 31 January 1963)	Ibid., p. 43.
Vienna Convention on Civil Liability for Nuclear Damage (Vienna, 21 May 1963)	United Nations, *Treaty Series*, vol. 1063, p. 265.
Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water (Moscow, 5 August 1963)	Ibid., vol. 480, p. 43.
International Convention on Civil Liability for Oil Pollution Damage (Brussels, 29 November 1969)	Ibid., vol. 973, p. 3.
Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Sea-bed and the Ocean Floor and in the Subsoil thereof (London, Moscow and Washington, 11 February 1971)	Ibid., vol. 955, p. 115.
Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, 2 February 1971)	Ibid., vol. 996, p. 245.
Convention on International Liability for Damage Caused by Space Objects (London, Moscow and Washington, 29 March 1972)	Ibid., vol. 961, p. 187.
Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (New York, 10 December 1976)	Ibid., vol. 1108, p. 151.
Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources (London, 17 December 1976)	UNEP, *Selected Multilateral Treaties in the Field of the Environment*, Reference Series 3 (Nairobi, 1983), p. 474.
Convention on Long-range Transboundary Air Pollution (Geneva, 13 November 1979)	ECE, *Environmental Conventions*, United Nations publication, 1992, p. 1.
United Nations Convention on the Law of the Sea (Montego Bay, 10 December 1982)	*Official Records of the Third United Nations Conference on the Law of the Sea*, vol. XVII (Sales No. E.84.V.3), p. 151, document A/CONF.62/122.
Convention on the Regulation of Antarctic Mineral Resource Activities (Wellington, 2 June 1988)	*International Legal Materials* (Washington, D.C.), vol. XXVII, No. 4 (July 1988), p. 868.
Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD) (Geneva, 10 October 1989)	*Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD)*, United Nations publication (Sales No. E.90.II.E.39), appendix.
Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 25 February 1991)	ECE, *Environmental Conventions*, United Nations publication, 1992, p. 95.

Introduction

A. The articles proposed to date

1. This being the first year of the Commission's current five-year term, and there being many new members, it is appropriate to review the status of the topic. Here, a reading of the seventh report of the Special Rapporteur[1] will be very useful: in it he attempted to provide an overall review of the draft articles proposed to date and of the reaction to them both in the Commission and in the Sixth Committee. The reader will also find there some suggested guidelines for future development of the most important aspects of the draft articles.

2. This said, it should be noted that the general-debate phase is over, and it is proposed to limit the discussion as far as possible to the content of the present report.

B. The first 10 articles

1. General comments

3. The Commission has considered two sets of texts. One set consists of the first 10 draft articles submitted in the fourth report of the Special Rapporteur[2], which were transmitted to the Drafting Committee for review.[3] During the debate preceding their transmittal, important suggestions were made for possible amendment of the articles, including proposed rewording to improve the text. In considering the report, the Sixth Committee put forward other considerations[4] that, in the Special Rapporteur's view, also deserved to be taken into account. In his fifth report,[5] those comments were incorporated into nine articles, which were discussed in the Commission and added to the material for consideration by the Drafting Committee. There were nine articles rather than 10 because a consensus emerged to delete the original article 8 (Participation).[6] As a result of further debate, the sixth report included some footnotes to certain of the articles,[7] presenting other, somewhat different drafting proposals for consideration of the Drafting Committee and, naturally, for the attention of the Commission at the appropriate time.

4. The Drafting Committee will thus have before it the version of the first 10 articles originally referred to it, plus the material for consideration consisting of the nine articles from the fifth report and the proposals contained in the footnotes to some of these articles from the annex to the sixth report.

2. Article 2

5. Owing to the very special nature of the topic and the lack of precedents for a general instrument of the kind the Commission might wish to recommend, as from the sixth report, most of the articles proposed are purely exploratory. The intention has been simply to elicit the reaction of members of the Commission and of the Sixth Committee, and to give a full picture of the possible scope of the draft articles. On a trial basis, in an attempt to satisfy a small but insistent line of thinking that favoured establishing a list of dangerous activities in order to define the scope of the topic more precisely, the concept of "dangerous substances" and other similar substances was included, as in the Council of Europe's important draft Convention on civil liability for damage resulting from activities dangerous to the environment.[8] As a result, the original text of article 2 (Use of terms) and of other articles had to be amended to correspond to the new idea of dangerous substances. The Commission and the Sixth Committee did not prove receptive to the inclusion of such a concept or, consequently, to the resulting amendments. The Drafting Committee knows, therefore, that subparagraphs (*a*), (*b*), (*c*) and (*d*) of article 2, as proposed in the sixth report[9] are not acceptable, and that it should, in principle, revert to the wording proposed in the fifth report, amended as indicated below, as the basis for its consideration.

6. Article 2 is of a very special nature. It was noted at one point[10] that the article was open to the introduction of new terms and the adaptation of existing ones to subsequent developments. It is thus a flexible article. The sixth report discussed other amendments to article 2 and other general provisions[11] that the Drafting Committee should take into account, which were related not to the concept of "dangerous substances" but to other concepts that had required definition after article 2 had been referred to the Drafting Committee as part of the first 10 articles.

C. The second set of articles

1. The principle of non-discrimination (art. 10)

7. The sixth report contained a new draft article 10 (Non-discrimination),[12] which had met with general sup-

[1] Reproduced in *Yearbook ... 1991*, vol. II (Part One), p. 71, document A/CN.4/437.

[2] Reproduced in *Yearbook ... 1988*, vol. II (Part One), p. 251, document A/CN.4/413.

[3] *Yearbook ... 1988*, vol. II (Part Two), p. 21, para. 101.

[4] See "Topical summary prepared by the secretariat, of the discussion in the Sixth Committee on the report of the Commission during the forty-third session of the General Assembly" (A/CN.4/L.431), sect. B.

[5] See *Yearbook ... 1989*, vol. II (Part One), p. 131, document A/CN.4/423.

[6] For the proposed text, see *Yearbook ... 1988*, vol. II (Part Two), para. 22.

[7] *Yearbook ... 1990*, vol. II (Part One), p. 83, document A/CN.4/428 and Add.1, annex, footnotes a-j.

[8] The text on which the discussion in the present report is based is the draft contained in Council of Europe document DIR/JUR (92) 1 of 27 January 1992, which was subsequently adopted as document DIR/JUR (92) 3 on 31 July 1992. For discussion based on an earlier draft, see the sixth report of the Special Rapporteur (*Yearbook ... 1990*, vol. II (Part One) (see footnote 7 above), pp. 87-88), paras. 15-17.

[9] Ibid., annex.

[10] Ibid., pp. 88-89, para. 19.

[11] Ibid., pp. 89-91, paras. 22-25.

[12] Ibid., annex. See also p. 91, para. 29.

port. It should thus be referred at this session to the Drafting Committee, so that it can conclude its review of the governing principles proposed to date for inclusion in chapter II.

2. The remaining articles

8. Next comes a set of articles numbered 11 to 33,[13] grouped into various chapters: chapter III develops the principle of prevention; chapter IV that of State liability; and chapter V that of civil liability. All these chapters are, as stated earlier, merely exploratory, and the newly-constituted Commission should forget them for the moment. As it proceeds with the topic, these or other more definitive texts will be proposed in the light of the debates in the Commission and in the General Assembly. In this report, for instance, having waited to draw on the conclusions of the latest, decisive debate, it has been possible to submit draft articles on the development of the principle of prevention that are already more concrete (see chap. II below). In addition, some of the definitions set forth in article 2 are reconsidered in an appendix to this report. These definitions have been put in an appendix in order to emphasize that article 2 has already been referred to the Drafting Committee, and that the debate is simply a continuation of the one that has already taken place.

[13] Ibid., annex.

Chapter I

Development of the principle of prevention

A. Obligations of prevention

9. In the discussions on obligations of prevention, the Commission asked two basic questions: (*a*) should there be, in connection with the activities covered by article 1, obligations of prevention in addition to obligations of reparation? (*b*) if so, should activities involving risk and activities with harmful effects be addressed jointly or separately? On the first question, a substantial body of opinion favoured a separate, recommendatory instrument on obligations of prevention that were simply procedural, such as those set forth in draft articles 11 to 15 in the version contained in the sixth report. The opinion of those who wanted procedural obligations eliminated, purely and simply, must also be taken into account. The conclusion, then, is that a decisive majority was against the retention of procedural obligations. Accordingly, it is now proposed that such procedural obligations be included in an annex as a mere recommendation.

10. There were some, however, who argued that unilateral preventive measures, such as those envisaged in article 16 of the text contained in the sixth report,[14] should be obligations binding on the State.[15] A clarification is called for in this connection: time and again, the Commission and the Sixth Committee have heard comments associating risk with prevention, and harm with reparation. Thus, prevention would be related solely to what are termed "activities involving risk", that is to say, activities likely to be a source of significant transboundary harm. There is, however, one fact that speaks volumes and should give pause for thought on that first impulse which leads to acceptance of the idea that "prevention is better than cure", and that has led to one of the thorniest problems facing this draft. That fact is that international instruments governing specific activities "involving risk" include no provisions on prevention, if "prevention" is to mean avoiding the occurrence of accidents. They are instruments that establish the civil liability of certain private individuals for harm caused by activities considered dangerous, as with nuclear energy, maritime carriage of oil, aviation and the like.[16] In those conventions which do not establish State responsibility, or in which it is subsidiary to civil liability, such as the Convention on Third Party Liability in the Field of Nuclear Energy and the Vienna Convention on Civil Liability for Nuclear Damage, it is impossible to attach *to the same subject* (the operator responsible) *and for the same event* both the responsibility for the breach of obligations of prevention—for a wrongful act—and strict liability (*sine delicto*). The reason is that, in regard to responsibility, wrongfulness is precluded if the subject of the obligation exercised due diligence, and, in regard to strict liability, the subject must provide compensation, irrespective of any measures taken in the attempt to prevent the event. Reference may be made here to articles 21 and 23 of part 1 of the draft articles on State responsibility.[17] Moreover, strict liability is usually a suf-

[14] Ibid. These obligations, along the lines of obligations of due diligence, would rest with the State of origin. This would mean that legislative, administrative and enforcement action would be needed to ensure that the individuals conducting the activity took substantive measures. Suggestions for improving the wording of article 16 were made. For example, it was said that the reference to insurance belonged in the domain of liability, rather than prevention; and the final sentence concerning the handling of imminent and grave risk might more appropriately be placed in articles regarding an emergency procedure.

[15] In earlier reports, the adjective "hard" was used to describe this type of obligation. These will simply be referred to as "obligations" in future, on the understanding that there are really no "soft obligations". Rather than "soft obligations", the term "recommendations" will be used.

[16] The only convention to establish State responsibility/liability is the Convention on International Liability for Damage Caused by Space Objects, but it does not contain obligations of prevention. To some extent, the Convention on the Regulation of Antarctic Mineral Resource Activities establishes State responsibility/liability, but for wrongful acts.

[17] For text, see *Yearbook ... 1980*, vol. II (Part Two), p. 32. For this very reason, the Convention on International Liability for Damage Caused by Space Objects contains no provisions on prevention: all the

ficient incentive for those in authority to take adequate preventive measures, inasmuch as compensation would have to be provided after any accident. The only way to include both forms of responsibility in the same legal instrument is to attach responsibility to different acts or to different subjects (for example, responsibility of the State for prevention, and civil liability for reparation).

11. Such being the case, it might be more practical to consign all the obligations of prevention (both the procedural obligations and those that have been described as "unilateral" or as obligations of due diligence) to an annex consisting of purely recommendatory provisions to guide States in better complying with the articles in the main text. The reasons are as follows:

(*a*) As already stated, the existing conventions on responsibility and liability tend not to address prevention[18] as defined earlier;

(*b*) These would be obligations resting with the State,[19] and any breach would entail State responsibility. While it is true that there are two different subjects here (the State and private operators), the same incident (namely the same episode of transboundary harm), may involve responsibility on the part of the State for a wrongful act, as well as strict liability or liability for risk, on the part of private operators. Although it may be argued that the Conventions on nuclear damage (see para. 10 above) establish some responsibility on the part of the State, such responsibility is not for wrongful acts, but is merely subsidiary to the strict liability of private individuals and is intended to cover damage for which they do not provide compensation. There is no need to choose between two options—one leading to State responsibility, the other leading to civil liability—which would not be very easy to reconcile, not to mention the fact that States have been extremely reluctant to assume responsibility/liability in existing conventions, or draft conventions, regulating certain activities involving risk.[20] Likewise, in the only draft dealing *in general* with activities that are dangerous to the environment, the Council of Europe's draft Convention on civil liability for damage resulting from activities dangerous to the environment,[21] there are no provisions on State responsibility;

(*c*) As has been said time and again, the imposition of primary obligations of prevention would make any breach a wrongful and therefore prohibited act. This leads to what is by now the standard objection: that the Commission would be dealing with prohibited acts, whereas its mandate from the General Assembly is to examine the question of liability for acts *not* prohibited by international law. Although in the opinion of the present writer and of many other members of the Commission, this is not a fundamental objection,[22] it is always wise to preserve methodological purity. Defining the relationship between State responsibility for wrongful acts and the liability of private individuals *sine delicto* is not easy, especially in connection with an item that is in itself complicated; and

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obligations rest with the State, and as the responsibility/liability of the State is absolute, there is no point in requesting it to take certain preventive action. It would be almost like wanting to punish attempted suicide with the death penalty.

[18] As will be seen, in such conventions prevention is viewed solely in terms of action aimed at containing or minimizing the harmful effects of an incident *that has already occurred*, that is to say, at *preventing* such effects from realizing their full potential for causing transboundary harm. It is generally considered to be a cost that might be incurred by any party—the affected State or private individuals—and that party must be compensated by the State of origin. It is one component of damage.

[19] As the text of the recommendation suggested below will show, it will be for the State to take the necessary legislative, administrative and enforcement measures to ensure that those responsible for the activities covered by the draft articles take *substantive* preventive measures.

[20] See G. Doeker and T. Gehring, "Private or international liability for transnational environmental damage—The precedent of conventional liability regimes", *Journal of Environmental Law* (Oxford), vol. 2, No. 1 (1990), in which the authors consider several treaty-based liability regimes. They find that to date only the Convention on International Liability for Damage Caused by Space Objects provides for *strict* liability on the part of the State; all the others rely on civil liability.

> "Regarding space activities, military and civil components were at the time of regime creation, and are still today, heavily intertwined. Military and global-political considerations have always been a domain of governmental interest. At the time of negotiations on liability for space activities, this interest obviously prevailed." (Ibid., pp. 14-15.)

The authors make a distinction between, on the one hand, such cases and, on the other, the *civilian* use of nuclear energy and the transport of dangerous substances, where the activity is of a purely commercial nature. Furthermore, in differentiating between solutions with regard to civilian nuclear activities and the transport of dangerous substances, they argue that there is subsidiary State involvement in the first instance, but none in the second instance. They quote the statement made by the United States representative at the 1969 Brussels Conference, to the effect that State participation

> "should only be considered if it could be shown that incremental insurance costs resulting from a traditional type though high limit maritime law solution were so huge as to make it uneconomic for vessel owners to continue in business. In other words, *States were not prepared to engage in subsidiary liability as long as the industry in question itself is able to bear the burden of increased liability**." (Ibid., p. 15.)

If that reasoning is correct, there is even more justification for applying it to the case of State responsibility for wrongful acts in draft articles intended to become a framework convention governing any activity that causes, or creates a risk of causing, significant transboundary harm. Along the same lines, Alfred Rest states:

> "Altogether the Code favours the *civil liability approach* and does not demonstrate the possibilities of a State responsibility/liability concept, which should be combined with the civil liability concept. It is worth mentioning that, for instance, in the precedent draft Code of February 1988, prepared by the ECE secretariat, 'the development of international law regarding international responsibility, liability and compensation' was still explicitly ruled. The deletion of this phrase illustrates again in a very impressive manner that States refuse or are very reluctant to bind themselves by compulsory State liability regulations." ("New tendencies in environmental responsibility/liability law—The work of the UN/ECE Task Force on Responsibility and Liability regarding Transboundary Water Pollution", *Environmental Policy and Law*, vol. 21, Nos. 3/4 (July 1991), p. 136.)

[21] See footnote 8 above.

[22] The question was considered at great length in earlier debates, and it was suggested that the title should refer to *activities*, not to acts (see, in particular, *Yearbook ... 1986*, vol. II (Part Two), para. 216, and *Yearbook ... 1992*, vol. II (Part Two), para. 348). It would be in keeping with the Commission's mandate to settle all matters relating to the activities concerned, including responsibility (in the sense of a whole range of primary obligations) for *wrongful acts* committed in the conduct of such activities.

That being the case, the English title should be amended to reflect the fact that the articles deal with *responsibility and liability for injurious consequences of activities not prohibited by international law.* See the seventh report, quoting Quentin-Baxter and referring to the "Informal Composite Negotiating Text/Revision 2" of the Third United Nations Conference on the Law of the Sea, which examines the meaning of the terms "responsibility" and "liability" (*Yearbook ... 1991*, vol. II (Part One) (footnote 1 above), para. 6, footnote 5).

(*d*) If an element of prevention is included that is as important as the one covered in this article, the same will have to be done at least with regard to one procedural obligation resting with the State of origin, namely the obligation to consult any States that may be affected before authorizing an activity with *harmful effects*, as will be seen shortly. That would be contrary to the almost unanimous desire not to introduce procedural obligations into the body of the instrument. It would have to be included because, as will be seen, consultation regarding a regime legalizing activities with harmful effects is practically the only useful aspect of any draft.

12. The annex should have a *chapeau* which, in addition to declaring that the provisions are purely recommendatory and that they would make for fuller compliance with the objectives and principles of the articles in the main body of the text, would rely on international law as the basis for the responsibility/liability that might come into play if non-compliance with any of those provisions also constituted a breach of an international obligation. In other words, adopting some provisions as recommendations would have the effect of facilitating implementation of the draft; failure to follow the recommendations would not entail consequences *within the regime of the draft articles*, but no position is taken concerning consequences that might arise in the area of general international law or under other agreements. Reference may be made in this connection to articles 4 (Relationship between the present articles and other international agreements) and 5 (Absence of effect upon other rules of international law).[23]

B. An alternative

13. The prevailing opinion is that the procedural articles should be moved to the annex but that the unilateral obligations of prevention should remain, even if that would complicate the part dealing with responsibility/liability, and there would be the obstacle posed by the reluctance of States to assume obligations of prevention: article I[24] of the annex could be placed in the main text, with the mood of the verbs being changed. In that event, the text should at least include the obligation to consult with regard to activities with harmful effects.

C. Joint treatment of unilateral preventive measures

14. The question now is whether an article of this nature, wherever it may be placed in the draft, would apply to both types of activities mentioned in article 1, namely activities involving risk and activities with harmful effects. To answer this question, it is necessary to consider once again the nature of the preventive role attributed to the State in each case. It has already been seen that the preventive measures to be taken by the State would be very different from those to be taken by individual operators: the State would have to set forth a prudent and comprehensive set of rules (including legislation and administrative regulations) in respect of prevention, and would have to monitor compliance using the legal means at its disposal. Individual operators would be obliged to adopt whatever substantive measures the State required of them.

15. It is with regard to substantive measures that the role of prevention differs, depending on whether the activity is one that involves risk or one that has harmful effects. In the former case, the result of prevention is uncertain since, by definition, incidents may occur in spite of the precautions that have been taken, while, in the latter, prevention is either entirely effective and prevents the harmful consequences from occurring (or from reaching the threshold of "significant" harm) or it is wholly or partly ineffective, in which case it fails to prevent the significant harm from occurring.[25]

16. But so far as the State is concerned, its role is the same no matter what the activity being regulated: in other words, it must adopt certain legislative, administrative and enforcement measures in order either to minimize the risk of accidents or to prevent the transboundary harm from exceeding the tolerable threshold and becoming *significant*. These will still be legislative, administrative or enforcement measures, in other words identical in nature, within the context of the concept of "due diligence". So far as prevention is concerned, the State would have to legislate and monitor.

17. In order to be able to adopt such measures, the State must place under a special regime all activities under its jurisdiction or control which may *prima facie* cause or risk causing transboundary harm. This is assumed to be what the majority of countries already do at present to protect their own population. What criteria must a Government apply in recognizing such activities? The first is the general definition of such activities given in article 2. As has already been suggested, this article could be accompanied by an annex, giving an indicative list of dangerous substances and possibly also of dangerous activities; since the list would be merely indicative, the drawbacks (of which so much has been heard) of an exhaustive and mandatory list would not apply. If such an approach is taken to prevention, there should be no serious problems, since the activities which involve risk, such as those set forth in article 2, may already require prior authorization in most States. So far as the draft articles are concerned, when assessing the impact of a particular activity on the environment, health or property of their own population, Governments would also have to take into account the possible transboundary effects. They would undoubtedly delegate this task to the private operators under their jurisdiction or control, and require the latter to provide, at their own cost, the data necessary to make the assessment.

[23] For text, see *Yearbook ... 1990*, vol. II (Part One) (footnote 7 above), annex.

[24] Roman numerals have been used to differentiate the draft articles proposed for possible inclusion in an annex from those forming the main body of the instrument.

[25] If such significant harm is inevitably related to the activity, it would be worth giving serious consideration to the possibility that, prior to authorizing the activity, the State of origin might require the operator to propose alternatives that do not produce that harm, as will be seen.

D. The need to consult: differences according to the activity

18. As to the need to consult at the start of the activity, it is worth analysing how activities involving risk differ from activities with harmful effects. The former create a risk of transboundary harm, whereas the latter cause harm directly, because they are activities which by definition cause harm in the course of their normal operation. There is already a considerable body of international theory and practice to support the view that transboundary harm caused by these activities, when significant, is, in principle, prohibited under general international law. That being so, an activity of this type could be conducted only if the affected States gave prior consent in some form. This principle is rendered somewhat less hard and fast by the fact that the harmful transboundary effects of certain activities are cumulative, gradually exceeding the threshold of tolerance to reach the level of "significant harm". An example is the air pollution which produces acid rain in Europe and in North America. Although it has proved impossible to prohibit such harmful activities, there is no doubt that international cooperation has been mobilized in an effort to eliminate their most harmful features. The Convention on Long-range Transboundary Air Pollution is one example, although it does not contain any clauses relating to liability. By cooperating in this way, States concede that the situation has, for important reasons, to be tolerated in the short term, but that it will eventually have to be eradicated. In addition, owing to the difficulty of proving the cause-and-effect relationship between the various sources and the harm, it is clear that everything that has to do with compensation becomes secondary. What emerges from all this is that, in practice, the major, or even sole, interest in respect of activities of this type is prevention through consultation, either to work out an acceptable regime that will allow the start-up of the activity or, where the activity is already under way—as in the case of the burning of fossil fuels that causes long-range air pollution—a regime that will make the activity tolerable and ultimately provide an alternative to significant transboundary harm.

19. In its "Elements for a draft convention on environmental protection and sustainable development", the Experts Group on Environmental Law of the World Commission on Environment and Development, proposes that the issue of lawfulness or unlawfulness of risk and harm should be dealt with by means of one principle and two exceptions. In its proposed article 10 it states a principle that reflects the general prohibition on causing, or creating the risk of causing, transboundary harm, as follows:

> States shall, without prejudice to the principles laid down in articles 11 and 12, prevent or abate any transboundary environmental interference or a significant risk thereof which causes substantial harm—i.e., harm which is not minor or insignificant.[26]

The comment states that:

> ... article 10 *lays down the well-established basic principle governing transboundary environmental interferences**, viz. that States shall prevent or abate any such interference which causes, or entails a significant risk of causing, substantial harm in an area under national jurisdiction of another State or in an area beyond the limits of national jurisdiction.[27]

This principle would amount to a blanket prohibition on causing "substantial" transboundary harm—to use the words of that draft article—and would correspond to the principle of inviolability of the territorial sovereignty of the affected State. Reuter used to ask:

> Do not the rules of territorial sovereignty lay down the principle of the prohibition of any physical activity that affects the territory of a State from a source located in the territory of another State (physical interference)?[28]

It is also interesting to see what the ECE Task Force[29] has to say, with regard to transboundary water pollution.

20. With respect to activities involving risk, article 11, paragraph 1, as proposed by the Experts Group, sets forth the first exception, based on the balance-of-interests concept.

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[26] *Environmental Protection and Sustainable Development: Legal Principles and Recommendations* (adopted by the Experts Group on Environmental Law of the World Commission on Environment and Development) (London/Dordrecht/Boston, Graham & Trotman/Martinus Nijhoff, 1987), p. 75.

[27] Ibid. In support of this position, the Experts Group quotes the classic statement in the arbitral award of the *Trail Smelter* case (*United States* v. *Canada*), which reads:

> "... under the principles of international law, as well as of 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 the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence." (United Nations, *Reports of International Arbitral Awards*, vol. III (Sales No. 1949.V.2), p. 1965.)

It is obvious from the above that only harm which is not minor or insignificant is relevant for purposes of international law.

It also quotes article 192, paragraph 2, of the United Nations Convention on the Law of the Sea, and refers to the acceptance of the concept, implicitly or explicitly, in numerous international instruments, including Principle 21 of the Stockholm Declaration (see United Nations, *Report of the United Nations Conference on the Human Environment, Stockholm, 5-16 June 1972* (Sales No. E.73.II.A.14 and corrigendum), part one, chap. I); General Assembly resolutions 2995 (XXVII) on cooperation between States in the field of the environment (para. 1); 3129 (XXVIII) on cooperation in the field of the environment concerning natural resources shared by two or more States; and 3281 (XXIX), adopting the Charter of Economic Rights and Duties of States (arts. 2 and 30). It points out that the judgement of 16 December 1983 of the District Court of Rotterdam, in the case of *Mines domaniales de Potasse d'Alsace* (see *Netherlands Yearbook of International Law*, vol. XV (1984), judicial decisions No. 9.924), also sets forth the same principle and agrees with the foregoing (*Environmental Protection* ... (see footnote 26 above), pp. 77-78).

Furthermore, the now traditional references, namely the *Corfu Channel* case (*I.C.J. Reports 1949*, p. 4), the *Lake Lanoux* case (United Nations, *Reports of International Arbitral Awards*, vol. XII (Sales No. 63.V.3), p. 281 (partial translations in *International Law Reports, 1957* (London), vol. 24 (1961), p. 101; and *Yearbook ... 1974*, vol. II (Part Two), pp. 194 *et seq.*, document A/5409, paras. 1055-1068), the *Gut Dam Claims* case (*International Legal Materials* (Washington, D.C.), vol. VIII (1969), p. 118), and others which illustrate the basis of liability for transboundary harm, such as the *Island of Palmas* case (United Nations, *Reports of International Arbitral Awards*, vol. II (Sales No. 1949.V.1), p. 838), have been cited repeatedly in the course of the Commission's debates. All these judicial precedents have been reviewed time and again and there is no point in dwelling upon them here.

[28] "Principes de droit international public", *Recueil des cours ..., 1961-II* (Leiden, Sijthof, 1962), vol. 103, quoted in Quentin-Baxter's second report (*Yearbook ... 1981*, vol. II (Part One), p. 116, document A/CN.4/346 and Add.1-2, footnote 95).

[29] See footnote 20 above.

1. If one or more activities create a significant risk of substantial harm as a result of a transboundary environmental interference, *and if the overall technical and socio-economic cost or loss of benefits involved in preventing or reducing such risk far exceeds in the long run the advantage which such prevention or reduction would entail**, the State which carried out or permitted the activities shall ensure that compensation is provided should substantial harm occur in an area under national jurisdiction of another State or in an area beyond the limits of national jurisdiction.[30]

21. It is also important to point out that the jurists of the World Commission on Environment and Development do not envisage the possibility of submitting the activity in question to prior authorization or consultation at the international level, provided that the balance-of-interests test cited above is met. The conclusion to be drawn is that, if the opposing interests present themselves in the proportions indicated, a principle of law exists here that authorizes the activity in question to be undertaken or to continue without prior consultation or authorization at the international level.

22. This seems to be confirmed by current practice. Dangerous activities have been conducted that have caused, or threatened to cause, harm to third States. After a while, States have sought legal regimes for such activities to establish the principle of balance of interests, generally by transferring liability to the individual operators. Examples include nuclear activity, on which there are several conventions, the maritime carriage of oil, aviation, and accidental and non-accidental transboundary pollution of inland waters.[31] On those occasions when it has been impossible to establish such a balance, the activity has been prohibited by treaty, as in the case of the Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water, the Convention on the Prohibition of Military or any other Hostile Uses of Environmental Modification Techniques and the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-Bed and the Ocean Floor and in the Subsoil Thereof.

23. Starting from the basis of the prohibition, in principle, of all substantial transboundary harm, any activity under the jurisdiction or control of a State that inevitably caused such harm (such as activities with harmful effects) would, in principle, be internationally wrongful. But here too, balance of interests can play an important role. Returning to the discussion of the issue by the Experts Group of the World Commission on Environment and Development, article 12 of the principles adopted by the Group states:

1. If a State is planning to carry out or permit an activity which will entail a transboundary environmental interference causing *harm which is substantial but far less than the overall technical and socio-economic cost or loss of benefits involved in preventing or reducing such interference**, such State shall enter into negotiations with the affected State on the equitable conditions, both technical and financial, under which the activity could be carried out.

2. In the event of a failure to reach a solution on the basis of equitable principles within a period of 18 months after the beginning of the negotiations or within any other period of time agreed upon by the States concerned, the dispute shall at the request of any of the States concerned, and under the conditions set forth in paragraphs 3 and 4 of article 22, be submitted to conciliation or thereafter to arbitration or judicial settlement in order to reach a solution on the basis of equitable principles.[32]

24. There is a common basis for the two types of activity: the transboundary harm caused must, in the long run, be less than the cost (overall technical and socio-economic cost or loss of benefits) involved in preventing or reducing such harm or risk. Otherwise, if the cost of preventing the harm or risk is, in the long run, much lower than that of the harm caused, the activity will clearly be unlawful, the difference in cost perhaps being the measure of the negligence of the State of origin.

25. On the other hand, if the balance of interests tilts in the direction indicated by the above-mentioned texts, then there are two separate consequences, depending on the type of activity involved: (*a*) activities involving risk would be lawful provided that the State of origin accepts strict liability for the harm caused (the balance being righted by payment of appropriate compensation plus costs of preventive measures;[33] and (*b*) activities with harmful effects *would not be regarded either as clearly lawful or as clearly unlawful* (consequently, they would not be prohibited), pending substantiation of the obligation to negotiate or the settlement of the relevant dispute, as the case may be.[34]

26. Although it is not the intention to follow the proposal of the Experts Group literally, the legal analysis which the experts carried out seems basically correct, in that States of origin may undertake activities involving risk, provided they ensure that appropriate compensation will be paid in the event that transboundary harm does, in fact, occur. It is felt that it would not be practical to require proof that the overall technical and socio-economic costs or loss of benefits in the long run exceed

[30] *Environmental Protection* ... (see footnote 26 above), p. 80.

[31] In the work cited (ibid., p. 82), reference is made to the Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface (art. 1); the Convention on Third Party Liability in the Field of Nuclear Energy, amended by the 1964 Additional Protocol and by the 1963 Brussels Convention Supplementary to the 1960 Paris Convention; the Vienna Convention on Civil Liability for Nuclear Damage; the Convention on the Liability of Operators of Nuclear Ships; the International Convention on Civil Liability for Oil Pollution Damage; and the Convention on Civil Liability for Oil Pollution Damage Resulting from Exploration for and Exploitation of Seabed Mineral Resources. It also cites conclusion 35 of the 1981 UNEP Study on the Legal Aspects concerning the Environment related to Offshore Mining and Drilling within the Limits of National Jurisdiction (UNEP, *Environmental Law, Guidelines and Principles (No. 4), Offshore Mining and Drilling* (UNEP (092)/E5), p. 10).

Reference is also made to the acceptance by many major countries—Egypt, Ethiopia, France, Germany, India, Iraq, Japan, Jordan, Kuwait, Lebanon, Libyan Arab Jamahiriya, Madagascar, Mexico, Senegal, the former Soviet Union, Syrian Arab Republic, Thailand, Turkey, United Kingdom of Great Britain and Northern Ireland, United States of America, and Venezuela—of the principle of strict liability under national law. Based on that widespread acceptance, it concludes that:

"The increasing acceptance of strict liability for ultrahazardous activities at the national level is evidence of an emerging principle of [national] law recognized by civilized nations. As known, according to Article 38, paragraph 1 (*c*), of the Statute of the International Court of Justice, such a principle may also govern the relationship between sovereign States when there is no treaty or rule of customary international law calling for the application of a different principle or rule." (*Environmental Protection* ... (see footnote 26 above), p. 84).

[32] Ibid., pp. 85 and 86.

[33] Here "prevention" means measures taken after the incident to contain or minimize the harm. Strict liability with compensation is perhaps a good incentive for adopting reasonable preventive measures to avert an incident so that the activity may continue with all possible precautions.

[34] See *Environmental Protection* ... (footnote 26 above), p. 87.

the harm, or vice versa, as a precondition for initiation of the activity. On the contrary, an activity involving risk may start up just as long as the condition mentioned above is met. However, the State of origin would nevertheless have to consult with those States which might subsequently be affected, to consider whether the preventive measures imposed on individual operators were acceptable, bearing in mind the factors set forth in former article 17, which is now article IX of the annex.

27. With regard to activities with harmful effects, which, by definition, cause harm in the course of their normal operation, it is recommended that the initiation of such activities should be made conditional upon prior consultation with the affected States, with a view to working out an agreement on the regime under which the activities would be permitted. The procedure would have to be supplemented by a mechanism for the settlement of disputes. This, of course, would be without prejudice to any action to which victims might have recourse under international law in respect of harm already caused and in relation to the State's obligations in terms of its responsibility for wrongful acts (due diligence), or possibly in relation to the strict liability of private operators.

28. If the consultations referred to in paragraph 27 above were to indicate that there is no effective means of preventing the significant transboundary harm, or if the affected State can demonstrate that there is no satisfactory way of compensating the victims, the State of origin would not authorize the activity unless the operator proposed alternatives which would not entail "significant" harm.

E. Notification, information and warning by the affected State

29. It is advisable to read the fifth and sixth reports of the Special Rapporteur on this point. The first of these shows that consultation is closely linked with *notification* of the situation that gives rise to it and with prior *information* on the nature of such a situation (para. 74), to the point that if no reference was made to notification and information they would be implicit. The fifth report[35] also states that the general obligation to cooperate is one of the bases for notification (para. 76), "because in some cases there is a need for joint action by both the State of origin and the affected State if prevention is to be effective" (para. 77); and that the other basic principle of notification is the duty of a State to refrain from the conscious use of its territory to cause harm (para. 78). A commentary on the international practice in the matter is to be found in paragraphs 79 to 95.

30. The procedure suggested in the fifth report was simplified and somewhat modified in the sixth[36]; and in the present report, it is further simplified. Article 12 (Participation by the international organization), has been deleted because in fact the States concerned can always consult with such organizations on a voluntary basis, depending on the extent to which the organization in question is permitted by its statutes to participate if so requested by States. On the other hand, reference to the recommended recourse to an international organization to determine which States would be affected as a result of an activity with very widespread effects or a long-distance impact is being retained, bearing in mind that some international organizations have agreements and means for assessing the impact of certain occurrences or activities. For example, UNEP has organized a Global Environmental Monitoring System based on national systems. This is a good instance of the kind of assistance an international organization can provide.

[35] *Yearbook ... 1989*, vol. II (Part One) (see footnote 5 above), pp. 142 *et seq.*, paras. 72 *et seq.*

[36] *Yearbook ... 1990*, vol. II (Part One) (see footnote 7 above), pp. 91-94, paras. 31-42.

CHAPTER II

Recommendatory provisions on prevention (arts. I-IX)

31. On the basis of the draft articles on prevention and the comments and observations made during the debate on the question, the articles hereunder are proposed for inclusion in an annex. They are accompanied by commentaries on the drafting.[37]

ANNEX

In respect of the activities referred to in draft article 1, and in the interest of fuller compliance with its objectives and principles, the following provisions are in the nature of recommendations, without prejudice to any corresponding responsibilities arising under international law.

Article I. Preventive measures

The activities referred to in article 1 of the main text should require the prior authorization of the State under whose jurisdiction or control they are to be carried out. Before authorizing or undertaking any such activity, the State should arrange for an assessment of any transboundary harm it might cause, and should ensure, by adopting legislative, administrative and enforcement measures, that the persons respon-

[37] The commentaries are confined to such matters as explaining the reasons why certain drafting changes were made other than those proposed in the sixth report, or similar matters.

sible for conducting the activity apply the best available technology to prevent or to minimize the risk of significant transboundary harm, as appropriate.

Commentary

(1) This article refers to what in former article 16 were called "unilateral preventive measures", that is to say, measures that a State adopts of its own accord, without prior consultation with any other, and as a first precaution. It is considered preferable to change the order established in the sixth report and place this article at the beginning, in order to emphasize the need for prior authorization by the State of origin and make that contingent upon an assessment of the transboundary impact. The text sets out the first duty of a Government in respect of activities that appear to come under article 1. The assessment of potential transboundary effects was a provision of article 11 (Assessment, notification and information)[38] as proposed in the sixth report. If a State discovers that an activity that appears to come under article 1 is already being conducted without its authorization, it will no doubt review it and, if necessary, insist on the need for prior authorization. Such authorization is called for with respect to both types of activities referred to in this article; but, in the case of activities involving risk, only if the State's authorization is not contingent upon any prior international procedure. In the case of such activities, the purpose of the recommended consultation (if it is indeed called for by the special nature of the activity) is merely to make the necessary adjustments to the regime established by the State of origin for the conduct of the activity—for example, to reach an agreement on coordinated precautionary measures such as contingency plans—with the proviso that the compensatory regime must be the one established in the main text, which will in principle be a regime of strict liability.

(2) Furthermore, if international criteria come into play, the present articles will in no way affect their validity or their character: if they are compulsory by reason of some international or regional agreement or custom, the fact that under the provisions of this article the choice of the means to be used is left to the State of origin in no way erodes the binding nature of the other instrument or custom. The phrase "best available technology" has been taken from the Code of Conduct on Accidental Pollution of Transboundary Inland Waters.[39]

Article II. Notification and information

If the assessment referred to in the preceding article indicates the certainty or the probability of significant transboundary harm, the State of origin should notify the States presumed to be affected regarding this situation and should transmit to them the available technical information in support of its assessment. If the transboundary effect may extend to more than one State, or if the State of origin is unable to determine precisely which States will be affected, the State of origin should seek the assistance of an international organization with competence in that area in identifying the affected States.

Commentary

As has been said, information is closely linked to notification and consultation: hence the need to provide information on the outcome of the assessment of the transboundary impact. Information does not entail an additional effort to investigate beyond what has already been done; the word "available" was therefore used to convey that idea. The State of origin gives what it has; it is not under an obligation to make further or more extensive inquiries than it has already conducted. If it proves difficult to discern the extent of the probable effects of the activity, the State of origin shall try to avail itself of the services of an international organization with competence in the area.

Article III. National security and industrial secrets

Data and information vital to the national security of the State of origin or to the protection of industrial secrets may be withheld, but the State of origin should cooperate in good faith with the other States concerned in providing any information that it is able to provide, depending on the circumstances.

Commentary

This article simplifies and incorporates parts of former articles 11 (Assessment, notification and information) and 15 (Protection of national security or industrial secrets) as proposed in the sixth report.[40] Unlike the former article 11, it does not include the option of also providing information on precautionary measures the State is attempting to take, because a description of such measures would be a normal part of the information that has to be transmitted to the affected State or States, given the very nature of the consultations, which would surely centre on the regime to be applied.

Article IV. Activities with harmful effects: prior consultation

Before undertaking or authorizing an activity with harmful effects, the State of origin should consult with the affected States with a view to establishing a legal regime for the activity in question that is acceptable to all the parties concerned.

Commentary

This article reflects a norm that is not found in the sixth report, and it follows the thinking that, to the extent that an activity causes transboundary harm in the normal course of its operation, it must become suspect as a

[38] For text, see *Yearbook ... 1990*, vol. II (Part One) (footnote 7 above), annex.

[39] ECE, *Code of Conduct on Accidental Pollution of Transboundary Inland Waters* (United Nations publication, Sales No. E.90.II.E.28), sect. II, art. 1.

[40] See footnote 38 above.

wrongful activity: either such harm is avoidable, in which case the State of origin is obliged to require the applicant for authorization to take the necessary preventive measures, or else it is unavoidable, and no further steps can be taken without some kind of consultation with the affected States in the course of which they will have an opportunity to make counterproposals regarding the conduct of the activity, if they so wish.

Article V. Alternatives to an activity with harmful effects

If such consultations show that transboundary harm is unavoidable under the conditions proposed for the activity, or that such harm cannot be adequately compensated, the affected State may ask the State of origin to request the party requesting authorization to put forward alternatives which may make the activity acceptable.

Commentary

The wording of this article is similar to that of article 20 (Prohibition of the activity) as proposed in the sixth report.[41]

Article VI. Activities involving risk: consultations on a regime

In the case of activities involving risk, the States concerned should enter into consultations, if necessary, in order to determine the risk and amount of potential transboundary harm, with the aim of arriving at an arrangement with regard to such adjustments and modifications of the planned activity, preventive measures and contingency plans as will give the affected States satisfaction, on the understanding that liability for the harm caused will be subject to the provisions of the corresponding articles of the main text.[42]

Commentary

The reasons for this provision, which takes a different approach from that taken in the sixth report, have already been stated above. It is important to point out that the fact that the State has no obligation of due diligence does not make any applicable international criteria which may exist in this connection less valid.

Article VII. Initiative by the affected States

If a State has reason to believe that an activity under the jurisdiction or control of another State is causing it significant harm or creating a risk of causing it such harm, it may ask that State to comply with the provisions of article II of this Annex. The request should be accompanied by a technical explanation setting forth the reasons for such belief. If the activity is found to be one of those referred to in article 1 of the main text, the State of origin should pay compensation for the cost of the study.

Commentary

This text is based on article 13 (Initiative by the presumed affected State) as proposed in the sixth report.[43]

Article VIII. Settlement of disputes

If the consultations held under articles IV and VI above do not lead to an agreement, the parties should submit their differences for consideration under the procedures for the settlement of disputes set out in Annex...

Commentary

It is clear that an expeditious procedure for the settlement of disputes is altogether necessary in order to settle any differences, regarding either the need for a given regime in the case of activities involving risk, or authorization to carry out an activity with harmful effects; otherwise a point would be reached where there would be instances of real vetoes by affected States.

Article IX. Factors involved in a balance of interests

In the case of the consultations referred to above and in order to achieve an equitable balance of interests among the States concerned in relation to the activity in question, these States may take into account the following factors:

(*a*) Degree of probability of transboundary harm and its possible gravity and extent, and likely incidence of cumulative effects of the activity in the affected States;

(*b*) The existence of means of preventing such harm, taking into account the highest technical standards for engaging in the activity;

(*c*) Possibility of carrying out the activity in other places or with other means, or availability of other alternative activities;

(*d*) Importance of the activity for the State of origin, taking into account economic, social, safety, health and other similar factors;

(*e*) Economic viability of the activity in relation to possible means of prevention;

(*f*) Physical and technological possibilities of the State of origin in relation to its capacity to take preventive measures, to restore pre-existing environmental conditions, to compensate for the harm caused or to undertake alternative activities;

[41] Ibid.

[42] The text of this article is based on that of sect. VII, art. 7 of the ECE Code of Conduct... (see footnote 39 above).

[43] See footnote 38 above.

(g) Standards of protection which the affected State applies to the same or comparable activities, and standards applied in regional or international practice;

(h) Benefits which the State of origin or the affected State derive from the activity;

(i) Extent to which the harmful effects stem from a natural resource or affect the use of a shared resource;

(j) Willingness of the affected State to contribute to the costs of prevention or reparation of the harm;

(k) Extent to which the interests of the State of origin and the affected States are compatible with the general interests of the community as a whole;

(l) Extent to which assistance from international organizations is available to the State of origin;

(m) Applicability of relevant principles and norms of international law.

Commentary

In the sixth report of the Special Rapporteur, it was indicated that the concepts contained in what was then article 17 (Balance of interests) were "recommendations or guidelines for conduct" rather than "genuine legal norms".[44] Those desiring a somewhat fuller discussion of the reasons for including these recommendations in an annex are referred to the relevant discussion in the sixth report.[45] However, enough has been said to indicate that the appropriate place for this article is precisely in an annex containing non-binding provisions, and, to be more exact, in the part on consultations; it is at the time when consultations are being held that the criteria listed in article IX are useful—namely at a time when the respective interests of the parties are being compared in order to decide whether an activity involving risk or having some harmful effect is admissible.

[44] *Yearbook ... 1990*, vol. II (Part One) (footnote 7 above), para. 39.

[45] Ibid.

APPENDIX

Development of some concepts in draft article 2 appearing in previous reports

A. *General comments*

1. As was pointed out earlier (para. 6 above), article 2 is "open" in nature, and some of the definitions it contains appear to require further thought. This fact, together with the recent appearance of certain drafts and studies on liability for activities not prohibited by international law, points to the desirability of bringing the following ideas to the attention of the Commission, in the hope that the ensuing debate will provide guidance for the Drafting Committee, which is already working on this article.

B. *The concept of risk*

2. Risk was defined in the fourth report as

> ... the risk occasioned by the use of substances whose physical properties, considered either intrinsically or in relation to the place, environment or way in which they are used, make them highly likely to cause transboundary injury throughout the process (art. 2 (*a*) (i))

and "appreciable risk" as

> ... the risk which may be identified through a simple examination of the activity and the substances involved (art. 2 (*a*) (ii)).[a]

In other words, an attempt was made to define an activity involving risk in terms of the substances used, and "appreciable risk" by the possibility of the risk being identifiable; there had to be a perceptible risk, not a hidden risk that only became evident after a thorough examination. It was also required to be of not insignificant magnitude. Thus the concept "appreciable" introduced a duality of meanings.

3. In the sixth report, on the other hand, "*activities* involving risk" are defined as those involving dangerous substances, technologies or genetically altered organisms and micro-organisms (art. 2 (*a*)).[b] Having defined the activities dealt with in the draft in this way, there was no need for a general definition of risk. The concept of "*appreciable* risk", or "*significant* risk", whichever of the terms the Commission decides to use, was however an issue, as it involved a concept which was to be dealt with in the draft. The sixth report included the relevant definition in article 2 (*e*).[c]

4. Now that the idea of dangerous substances has been discarded as a result of the preference expressed both in the Commission and in the General Assembly,[d] the definition of risk needs to be re-examined. This is important in order to define clearly the scope of the articles, so that Governments will know in respect of which activities they will have to adjust their domestic legislation in order to assign liability to those they consider should be responsible for the corresponding compensation payments, and make the necessary provision to secure such payments. Models are not abundant, because the conventions on specific activities do not need to deal with the concept of risk in order to define their scope; the activities covered under such agreements are presumed to involve appreciable or significant risk. The only *general* instrument is the Council of Europe's draft Convention on civil liability for damage resulting from activities dangerous to the environment, to which reference has already been made (see paras. 5 and 11 above). As has already been seen, a considerable number of Commission members and representatives to the Sixth Committee did not find its approach adequate (see para. 5 above).

5. A definition of risk exists in relation to the accidental pollution of transboundary inland waters. The ECE Code of Conduct on this subject, defines, *inter alia*, three closely related concepts:

[a] *Yearbook ... 1988*, vol. II (Part One) (see footnote 2 above), p. 254, para. 17.

[b] *Yearbook ... 1990*, vol. II (Part One) (see footnote 7 above), p. 106.

[c] Ibid.

[d] See the seventh report (*Yearbook ... 1991*, vol. II (Part One) (footnote 1 above)), paras. 25-29.

...

(*f*) "*Risk*" means the combined effect of the probability of occurrence of an undesirable event and its magnitude;

(*g*) "*Hazardous activity*" means any activity which by its nature involves a significant risk of accidental pollution of transboundary inland waters; and

(*h*) "*Hazardous substance*" means any substance or energy involving a significant risk of accidental pollution of transboundary inland waters, including toxic, persistent and bio-accumulative substances and harmful micro-organisms;

...[e]

The Convention on Civil Liability for Damage Caused During Carriage of Dangerous Goods by Road, Rail and Inland Navigation Vessels (CRTD) does not define risk, but only dangerous goods (art. 1, para. 9), and does so simply by reference to certain lists contained in a European agreement. The ECE draft framework agreement on environmental impact assessment in a transboundary context[f] establishes the need for such assessment in respect of certain activities, but also does so by means of lists. Article 1 (*v*), defines a "*proposed* activity" which should be assessed in terms of its transboundary impact, as

... any activity or any major change to an activity subject to a decision in accordance with an applicable national procedure.

Appendix I cites as planned activities likely to have a transboundary impact such works as, for example, crude-oil refineries and installations for the gasification or liquefaction of coal, thermal power stations and other combustion installations, nuclear installations and the like. Appendix III establishes general criteria to assist in the determination of the environmental significance of activities not listed in appendix I, although their application in specific cases would be subject to the consent of the States concerned (art. 2, para. 5). These criteria are:

1. ...

(*a*) *Size*: proposed activities that are large for the type of the activity;

(*b*) *Location*: proposed activities which are located in or close to an area of special environmental sensitivity or importance (such as wetlands designated under the Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, national parks, nature reserves, sites of special scientific interest or sites of archaeological, cultural or historical importance); also activities in locations where the characteristics of proposed development would be likely to have significant effects on the population;

(*c*) *Effects*: proposed activities with particularly complex and potentially adverse effects on humans or on valued species or organisms, those which threaten the existing or potential use of an affected area and those causing additional loading which cannot be sustained by the carrying capacity of the environment.

2. The concerned Parties shall consider for this purpose proposed activities located close to an international frontier, as well as more remote proposed activities which could give rise to significant transboundary effects far removed from the site of development.

6. To sum up, it is apparent from the above review that there are various elements associated with risk: (*a*) the activities themselves, in terms of their size and their foreseeable likely transboundary effects; (*b*) the location of the activity in relation to the international frontier or to sensitive areas in neighbouring States that might be particularly affected; (*c*) the objects of the activity or those with which they deal, objects being taken to mean a variety of things, such as certain technologies, substances, and dangerous genetically modified organisms or dangerous micro-organisms. Moreover, the definition involving the combination of the probability of an accident occurring and its magnitude appears to fit the description of *appreciable*, *significant* or *substantial* risk, depending on where the minimum level or threshold of risk is to be set.

7. The attempt at a definition in the fourth report, as already pointed out (para. 33 above), covered only activities involving dangerous substances. However, some of the concepts it contains, applied to the activities themselves and not to the substances involved, figure in the foregoing summary. Dangerous substances are either intrinsically dangerous, or become so in relation to the place, environment or way in which they are used. For example, explosives, and radioactive, toxic or inflammable materials, are intrinsically dangerous. Dangerous substances when used in activities conducted close to an international frontier or to a particularly sensitive ecological region, or where their effects are wind-borne until they become transboundary, are dangerous in relation to their location. When the substances in question have a particular effect on water or air they are dangerous in relation to the environment in which they are used. Substances used in space activities or aviation, or wherever adequate arrangements for their storage are lacking, or substances accumulated in large quantities, such as oil, which is harmless in small quantities and becomes dangerous when 200,000 tons of it are transported by ship, become dangerous in relation to the way in which they are used. Likewise, an activity such as the construction of a dam which retains in its impoundment a quantity of water sufficient to cause damage of various kinds (environmental or accidental, leading to the flooding of neighbouring countries or a change in the flow rate of their rivers, etc.) may become dangerous in relation to location or environment.

8. An attempt at a definition should begin with the activities themselves, employing criteria such as those used in the ECE draft framework agreement: magnitude, location and effects. The paragraph in question might be drafted as follows:

> " 'Risk' means the combined effect of the probability of occurrence of an accident and the magnitude of the harm threatened. 'Activities involving risk', for purposes of the present articles, are activities in which the result of the above combination is significant. This situation may arise when the effects of the activity are threatening, as when dangerous technologies, substances, genetically modified organisms or micro-organisms are used, or when major works are undertaken, or when their effects are accentuated by the location of the sites at which they are carried out, or by the conditions, ways or media in which they are conducted."

9. The above text could be divided so that the first two sentences would form a paragraph of article 2 and the remainder could be included in the commentary to the article. In addition, lists of dangerous substances and perhaps also examples of activities involving risk, along the lines of appendix I to the ECE draft framework agreement, could be placed in an annex which would be purely indicative in nature. Naturally, this general definition, or any other that might be attempted, including the

[e] See footnote 39 above, sect. I.

[f] This subsequently became the Convention on Environmental Impact Assessment in a Transboundary Context, adopted at Espoo (Finland) on 25 February 1991. References in this report are to the final text of the Convention.

provision of examples in the annexes, will not guarantee that all activities involving risk will *a priori* be included in the draft. However, something along these lines could provide guidance to Governments as to how the articles will operate.

C. *The concept of harm*

10. The Guidelines drawn up by the ECE Task Force on Responsibility and Liability regarding Transboundary Water Pollution[g] attempt what Rest describes as a "*definition of damage* as the basic indication for the amount of reparation or compensation due in case of responsibility",[h] which reads as follows:

(*m*) "*Damage*" means:

— Any loss of life, impairment of health or any personal injury;

— Any loss or damage to property or loss of profit;

— Detrimental changes in ecosystems including:

(i) The equivalent costs of reasonable measures or reinstatement actually undertaken or to be undertaken and

(ii) Further damages exceeding those referred to under (i) such as the equivalent costs of measures for replacement of habitats of particular conservation concern;

— The cost of preventive measures and further loss caused by preventive measures;

which arise from transboundary water pollution ...

Rest describes the third item as "progressive and innovative", because it opens the door for compensation of *ecological damage*, and he adds:

New is the regulation on the *content and amount of the compensation*. Not only the costs of reasonable preventive measures or measures of reinstatement actually undertaken are to be paid. Even in the case where a measure of reinstatement is impossible because of the factual situation, with the consequence that no costs arise, the polluter now has to grant compensation, not in the form of paying money, but by *replacing habitats of particular conservation concern.* ... the Guidelines follow the new concept of [debt for] nature swap system. But it must be admitted that the word "reasonable" measure still can hinder the implementation of this system. The Working Group of the Task Force had a very controversial discussion on the insertion of this word, which in the end came into the text for reasons of political opportunity. The still existing, unsatisfying situation can be illustrated by the example of the "Exxon Valdez Case". As in this case it was impossible to clean up the oil-polluted seabed of the Gulf of Alaska because of the factual situation, the Exxon Corporation ... saved the clean-up costs. This seems to be unjust. According to the Guidelines, the polluter could perhaps be obliged to grant *equivalent compensation*, for instance, by replacing fish or by establishing a nature park. Certainly, the very complex problem of evaluating and stating the amount of the ecological damage still raises a lot of unanswered questions. But in general, the purpose of the "damage definition" is to be welcomed and should be supported.[i]

The article goes on to quote the Council of Europe definition of *measures of reinstatement* (see paragraph 11 below).

11. The Council of Europe's draft Convention on civil liability for damage resulting from activities dangerous to the environment,[j] defines damage in article 2, paragraph 8, with the exception of subparagraphs (*a*) and (*b*), which are substantially similar to those in the Guidelines,[k] as:

(*a*) ...

(*b*) ...

(*c*) loss or damage by impairment of the environment in so far as this is not considered to be damage within the meaning of subparagraphs (*a*) and (*b*) provided that compensation for impairment of the environment ... shall be limited to the costs of measures of reinstatement actually undertaken or to be undertaken;

(*d*) the costs of preventive measures and further loss or damage caused by preventive measures ...

In paragraph 9, "measures of reinstatement" are defined as

... any reasonable measures aiming to reinstate or restore damaged or destroyed components of the environment or to introduce, when reasonable, the equivalent of these components into the environment.

12. The Convention on the Regulation of Antarctic Mineral Resource Activities provides that an operator shall be strictly liable for

... damage to the Antarctic environment or dependent or associated ecosystems arising from its Antarctic mineral resource activities, including payment in the event that there has been no restoration to the *status quo ante* (art. 8, para. 2 (*a*))

and for

... reimbursement of reasonable costs by whomsoever incurred relating to necessary response action, including prevention, containment, clean-up and removal measures, and action taken to restore the *status quo ante* (ibid., para. 2 (*d*)).

13. The CRTD provides for:

(*a*) loss of life or personal injury ...

(*b*) loss of or damage to property ...

(*c*) loss or damage by contamination to the environment caused by the dangerous goods, provided that compensation for impairment of the environment other than for loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken;

(*d*) the costs of preventive measures and further loss or damage caused by preventive measures (art.1, para. 10).

14. Subparagraphs (*a*) and (*b*) present no problems, since they figure in any definition of harm. The concept of *harm to the environment*, which was welcomed by the Commission and the General Assembly when it was introduced in the fifth report,[l] has continued to evolve. The sixth report introduced an article 24 (Harm to the environment and resulting harm to persons and property). Liability for harm to the environment comprised

... the costs of any reasonable operation to restore, as far as possible, the conditions that existed prior to the occurrence of the harm. If it is impossible to restore these conditions in full, agreement may be reached on compensation, monetary or otherwise, by the State of origin for the deterioration suffered (para. 1).[m]

15. It had been pointed out during the debate on draft article 24 that conventions or drafts had up until that time not included the idea of making compensation which extended beyond reasonable operations to reinstate the conditions that existed before the harm,[n] and that accordingly an effort should be made to follow that trend. It appears that the Guidelines drawn up by the ECE Task Force, as well as the Council of Europe draft quoted respectively in paragraphs 10 and 11 above, open the door to an idea similar to that contained in the sixth

[g] See ENVWA/R.45, annex.

[h] Loc. cit. (see footnote 20 above), p. 137.

[i] Ibid.

[j] See footnote 8 above.

[k] See footnote g above.

[l] For summary of the discussions, see *Yearbook ... 1989*, vol. II (Part Two), paras. 335-350, and "Topical summary ..." (A/CN.4/L.431, sect. B).

[m] See footnote 7 above.

[n] See, for example, Graefrath (*Yearbook ... 1990*, vol. I, 2183rd meeting, para. 51).

report, though perhaps more practical by virtue of being less broad, in that it appears not to contemplate pecuniary compensation, which is very difficult to establish.

16. Initial consideration would indicate the desirability of combining in a single text, in article 2 which, as in almost all the instruments reviewed, related to the use of terms, the concepts of harm to persons, objects or the environment, each to be covered under a separate paragraph. Likewise, the definition should include not only the concept of harm, but that of *transboundary* harm, the only type of harm which gives rise to *international* liability. The first paragraph would then read:

" 'Damage' means:

"(*a*) any loss of life, impairment of health or any personal injury;

"(*b*) damage to property;

"(*c*) detrimental alteration of the environment, provided that the corresponding compensation would comprise, in addition to loss of profit, the cost of reasonable reinstatement or restorative measures actually taken or to be taken;

"(*d*) the cost of preventive measures and additional harm caused by such measures".

17. Paragraph (*l*) as proposed in the sixth report[o] would be replaced by the following:

" 'Restorative measures' means reasonable measures to reinstate or restore damaged or destroyed components of the environment, or to reintroduce, when reasonable, the equivalent of those components into the environment".

18. Paragraph (*m*)[p] would read as follows:

" 'Preventive measures' means reasonable measures taken by any person following the occurrence of an incident to prevent or minimize the damage referred to in paragraph . . . of this article".

In this respect, it should be pointed out that such measures have been defined in two ways: (*a*) those designed to prevent or avoid the occurrence of an incident (and with it the causing of the consequent harm), and (*b*) those designed to contain or minimize the harmful effects of an incident that has already occurred. In fact, conventions or drafts on *liability* take only the latter into account, generally as *costs additional* to the other compensation payable by the person liable. Frequently, these preventive measures are taken by the affected State, or by individuals within the affected State, to prevent the harm from spreading and reaching its full potential for damage. When such measures could be taken within the jurisdiction or control of the State of origin, they would also constitute an *obligation* on its part.

19. The concept of "transboundary harm" should be defined in a separate paragraph as "the harm which arises in the territory or other areas under the jurisdiction or control of a State as a physical consequence of an activity under article 1 which is conducted under the jurisdiction or control of another State".

20. The description of harm as "appreciable" or "significant", calls for two comments. First, the general view tends to favour "significant", because it appears to require a level somewhat higher than "appreciable", and, above all, because the latter word has the ambiguity of meanings already pointed out. Secondly, to date, the attempt made in the sixth report to define the threshold of harm (art. 2, para. (*h*))[q] has not met with approval. One possibility, therefore, is not to insist on trying to describe the harm, but to leave it to practice to determine when harm is "significant". Recently, the Guidelines drawn up by the ECE Task Force have put forward a definition which may perhaps be more successful than the previous attempt. It reads:

> The threshold of damage (as distinguished from mere harm) is that accepted by the States universally or by the concerned States. If no such level is agreed, damage occurs where an affected State is required, as the result of the activity on the territory of the State of origin, to take measures in the interest of the protection of the environment or population, or rehabilitation measures.[r]

True, the subjective element is not totally eliminated, because the State taking measures to protect the environment or the population may have a much greater sensitivity to environmental or public health concerns than that of the State of origin, in which case a difference in perception would arise whereby the State of origin would consider it unjust to have to bear the cost of measures which it deemed to be excessive.[s] However, this definition is at least more objective than such criteria as "harm that is not insignificant, or trivial, or a mere nuisance" that have been used in an attempt to describe the indefinable threshold. When a State takes measures, that is to say, incurs costs and so forth, it is reasonable to think that it is motivated by something other than a desire to spend money unnecessarily. It is also possible, for instance, to speak of levels that are regionally acceptable. In any event, if the definition reproduced above meets with a certain measure of acceptance, it could be included. At the same time, the commentary would mention all the criteria summarized above, in order to facilitate a quantification of magnitude that can only be established by broad international practice, particularly in a set of articles covering every possible activity that causes or may cause transboundary harm.

[o] See footnote 7 above.

[p] Ibid.

[q] Ibid.

[r] Para. 16.2 (see footnote g above).

[s] This is what happened, for example, regarding some of the actions taken by national Governments in Western Europe following the Chernobyl incident, which experts in other countries found to be excessive (destruction of agricultural produce supposedly exposed to radiation, slaughter of livestock, and so on).