ARTICLES ON PREVENTION OF TRANSBOUNDARY HARM FROM HAZARDOUS ACTIVITIES

By Mr. Sreenivasa Rao Pemmaraju
Visiting Professor and Director, Justice Jeevan Reddy Center for International Trade and Business, NALSAR University of Law, Hyderabad, India
Special Rapporteur of the International Law Commission on the topic of International Liability (1997-2006)

Introduction

It may be recalled that the United Nations General Assembly (hereinafter "the UNGA") took note of the *Draft Articles on Prevention of Transboundary Harm from Hazardous Activities* finalized by the International Law Commission (hereinafter "the ILC") in 2001[1]. Similarly, it took note of the *Draft Principles on the Allocation of Loss in the Case of Transboundary Harm from Hazardous Activities* finalized by the ILC in 2006[2]. With the adoption of these draft articles and principles, the ILC finally discharged its mandate in respect of "international liability for injurious consequences arising out of acts not prohibited by international law", an item it inscribed on its agenda in 1978.

Prior to 1978, the ILC had been working since 1955 on the topic of State responsibility which was concerned with the responsibility of States for internationally wrongful acts[3]. As Robert Rosenstock noted, treating State responsibility as the consequence of wrongful conduct does not cover, within its scope, "the question of acts that are not wrongful and are conducted with due care but result in significant harm to areas outside the jurisdiction of the acting states"[4]. It was clear, he added, that the construction of Roberto Ago, the Special Rapporteur on State Responsibility, "did not offer the ILC satisfactory tools to address the multiple problems posed by such conduct"[5]. The category of issues to be dealt with in the context of liability, as Roberto Ago himself noted, related to "responsibility arising out of performance of certain lawful activities-such as spatial and nuclear activities", merits an examination as a distinct topic different from the topic of State responsibility, owing "to the entirely different basis of the so-called responsibility for risk, the different nature of the rules governing it, its content and the forms it may assume"[6].

Accordingly, the ILC decided in 1978 to inscribe a new agenda item--international liability for injurious consequences arising out of acts not prohibited by international law--and appointed Robert Quentin Quentin-Baxter as the Special Rapporteur. The focus of the topic of international liability for "acts not prohibited by international law", as the Special Rapporteur noted, was "to promote the construction of regimes to regulate without recourse to prohibition, the conduct of any particular activity which is perceived to entail actual or potential dangers of a substantial nature and to have transnational effects" [7]. He added further, that "it is a secondary consideration, though still an important one, that the draft articles should help to establish the incidence of liability in cases in which there is no applicable special regime and injurious consequences have occurred"[8]. In addition, and independently the topic of liability is welcomed by States and scholars for the potential it exhibited, as the Special Rapporteur Quentin-Baxter noted in his second report, "in those situations in which rules as to wrongfulness are either in course of

---

[1] For the text of the draft articles, see *Yearbook of the International Law Commission 2001*, vol. II, Part Two, para. 97.
[2] For the text of the draft principles, see *Yearbook of the International Law Commission 2006*, vol. II, Part Two, para. 66.
[3] For a review of the work of the ILC on State responsibility, see James Crawford, *The International Law Commission's Articles on State Responsibility: Introduction, Text and Commentaries*, Cambridge: Cambridge University Press, 2002.
[4] Robert Rosenstock, "The ILC and State Responsibility", *American Journal of International Law*, vol. 96, 2002, p. 795.
[5] *Ibid*.
[6] "Second report on State responsibility, by Mr. Roberto Ago, Special Rapporteur" (A/CN.4/233), para. 6, in *Yearbook of the International Law Commission 1970*, vol. II.
[7] "Preliminary report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Robert Q. Quentin Baxter, Special Rapporteur" (A/CN.4/334 and Add.1 and 2), para. 9, in *Yearbook of International Law Commission 1980*, vol. II, Part One.
[8] *Ibid*.

formation or embody such complex tests that their application in disputed cases is not easily determined"[9]. The Special Rapporteur was referring, with some foresight, to State and human activities in outer space to deep oceans, development of weapons of mass destruction, and ever-growing environmental concerns, thanks to the limits to growth, unbridled use of fossil fuels and globalization of trade, commerce and financial markets.

The context for identifying issues of international liability, distinct and separate from State responsibility and focusing on acts not prohibited by international law but could be of concern to the international community, was well set. These concerns for the first time were addressed when the 1972 Stockholm Declaration of the United Nations Conference on Human Environment[10] was adopted. A new era in the field of international law focusing on the common concern for the protection of the environment emerged. They were further consolidated with the 1982 United Nations Convention on the Law of the Sea (hereinafter "the UNCLOS" or "the Convention") and the adoption of the 1992 Rio Declaration on Environment and Development. Both these initiatives are noteworthy because of their attempt to integrate policies concerning the protection of the environment, including the marine environment with the urgent needs of scores of developing countries to eradicate poverty. They emphasized the importance of sustainable development.

The 1992 Rio Declaration reiterated Principles 21, 22 and 23 of the 1972 Stockholm Declaration. It developed other principles relevant to sustainable development: the "common but differentiated responsibilities" (Principle 7), action needed to regulate the dumping of hazardous wastes causing harm to human health and environment (Principle 14), the "principle of precaution" (Principle 15) and the "polluter pays principle" (Principle 16), apart from the need to develop national law regarding liability and compensation for victims of pollution and other environmental damage (Principle 13). At the operation level, the Rio Declaration noted the obligation of States to enact effective environmental legislation (Principle 11) and adopt environmental impact assessment (hereinafter "EIA"), as a national instrument for the proposed activities that are likely to cause significant adverse impacts on the environment (Principle 17). In addition, following the Chernobyl nuclear accident and the two Conventions concluded under the auspices of the International Atomic Energy Agency dealing with early notification and mutual assistance[11], the Rio Declaration emphasized the duty of States to "provide prior and timely notification and relevant information to potentially affected States on activities that may have significant adverse transboundary environmental effect and consult with those States at an early stage and in good faith" (Principle 19).

International liability for harm arising from lawful activities as a separate agenda of the ILC since 1978: schematic outline

The third (1982)[12] and fourth (1983)[13] reports submitted by the Special Rapporteur took note of the overall context noted above and developed a schematic outline identifying some broad principles governing duties of care and due diligence and remedies in case of harm despite the discharge of duties associated with such care. It was noted that the topic of international liability and the duty of prevention that it embodied involved admitting the

[9] "Second report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Robert Q. Quentin-Baxter, Special Rapporteur" (A/CN.4/346 and Add.1 and 2), para. 10, in *Yearbook of the International Law Commission 1981*, vol. II, Part One.

[10] Declaration of the United Nations Conference on the Human Environment, see "Report of the United Nations Conference on the Hunan Environment", Stockholm, June 5-16, 1972 (A/Conf.48/14/REV.1).

[11] Following the Chernobyl incident two Conventions were adopted: the 1986 Convention on Early Notification of a Nuclear Accident; and the 1986 Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency. For a short note on these two Conventions, see P. Bernie and A. Boyle, *International Law & the Environment* (Second Edition), Oxford: Oxford University Press, 2002, pp. 471-472.

[12] For the "Third report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Robert Q. Quentin-Baxter, Special Rapporteur" (A/CN.4/360 and Corr.1), see *Yearbook of the International Law Commission 1982*, vol. II, Part One.

[13] For the "Fourth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Robert Q. Quentin-Baxter, Special Rapporteur" (A/CN.4/373, Corr.1 and Corr.2), see *Yearbook of the International Law Commission 1983*, vol. II, Part One.

existence and balancing of "legitimate interests and multiple factors"[14]. As noted by the Special Rapporteur in his third report (1983), in fashioning a regime governing the duty of prevention and liability for transboundary harm would have to meet the test of balance of interests as noted in Principle 21 of the Stockholm Declaration, that is, a balance between the freedom to act and the duty not to injure. But the balance of interests so involved would have to be so cast as to ensure that the " guiding principles are flexible enough to be just to everybody, including developing countries whose special needs were stressed in Principle 23 of the Stockholm Declaration"[15]. The basic thrust of the schematic outline was succinctly explained by the Special Rapporteur in his fourth report (1983) when he noted that:

> The schematic outline of the present topic reflects—but perhaps does not fully reflect—the flexible procedures and unlimited range of options of which States make use in constructing regimes to avoid, minimize and provide reparation for various kinds of transboundary loss or injury. Indeed, some have asserted that no rule emerges from the diversity of State practice. Certainly, there is no simple formula to reconcile one State's right to freedom of action with another State's right to freedom from adverse transboundary effects. As in other negotiations, States seek a balance of advantage, sometimes with a willingness to pursue their interests by a sacrifice of what they believe to be their rights, but more often by simply setting aside the vexed question of determining their respective rights and obligations in customary law. Yet, in all these shifting perspectives, there is one constant. The whole of State practice bears witness that a State in whose territory or under whose control a danger arises owes other States a duty to contain that danger, if possible, on terms agreed with other States affected by the danger[16].

With respect to the obligation of prevention, section 2(1) of the schematic outline provided for the duty to inform and section 2(5) for the duty to cooperate in good faith to reach an agreement, if necessary, upon the establishment of a non-binding fact-finding procedure. Further, section 6 dealt with various factors important for States to achieve mutual accommodation and balancing of interests[17].

Development of draft articles on international liability (1985-1996): some unresolved issues

Following the untimely death of Quentin-Baxter, the ILC appointed Julio Barbosa as the next Special Rapporteur in 1985. During his term, between 1985 and 1996, he submitted 12 reports. Based on the schematic outline, Barbosa presented the first set of draft articles in 1990 as part of his sixth report. Various issues, however, remained unresolved, even as the ILC made steady progress on the principle of prevention. The scope of articles, the nature of harm to be covered, including harm to global commons, and the manner of addressing issues of reparation or compensation were at issue. To help further progress, the ILC decided in 1992 to separate issues of prevention from remedial and compensation measures. In addition, it decided first to finalize its work on the prevention of transboundary harm, keeping its options open on the other part of the topic. Articles adopted in 1994 made significant progress in formulating the duty of due diligence providing for duties of prior authorization (art. 11), risk assessment (art. 12), adoption of legislative, administrative and other actions by States (art. 14), as well as duties to notify and inform (art. 15), exchange information (art. 16), information to the public (art. 16 bis), consultations (art. 18), rights of States likely to be affected (art. 19), and factors relevant for achieving an equitable balance of interests (art. 20).

However, the lack of agreement on some policy questions delayed the finalization of these draft articles. One such question was about the legal consequences in case the State of origin does not comply with its duty of due diligence. Quentin-Baxter proposed no right of action in this regard. Accordingly, the first sentence of sections 2(8) and 3(4) of the schematic outline read: "[F]ailure to take any step required by the rules contained in this section shall

---

[14] For an analysis of this concept of "legitimate interests and multiple factors", see the preliminary report by Mr. Robert Q. Quentin Baxter, Special Rapporteur (see footnote 7), Chapter III, part B.
[15] The third report by Mr. Robert Q. Quentin Baxter, Special Rapporteur (see footnote 12), para. 22. For more information, see *ibid*., para. 23.
[16] The fourth report by Mr. Robert Q. Quentin-Baxter, Special see Rapporteur (see footnote 13), para. 9.
[17] For the complete text of the schematic outline, see *ibid*., Annex: Schematic outline.

not in itself give rise to any right of action"[18], leaving up to the State of origin to continue to review the activity, take such measures as it deemed best, and provide information to State or States likely to be exposed to the risk of transboundary harm[19]. Responding to concerns expressed in this regard both within and outside the Commission, Barbosa proposed the deletion of the first sentence of sections 2(8) and 3(4) of the schematic outline noted above. However, he also made it clear that the affected State will be entitled to seek necessary redress only if harm arises as a consequence of the failure of the State of origin to comply with any one or more of the various components of the duty of due diligence. As provisionally agreed by the ILC in 1994-95, the duty of due diligence would include the duty to notify States likely to be affected in case of a risk of transboundary harm, the duty to cooperate and, to reach an agreement in good faith with the State or States likely to be affected.

Another question that divided both States and members of the Commission was the role to be assigned to the State of origin in addressing issues concerning remedial and compensation measures in case of transboundary harm. Barbosa initially relied on State and strict liability, noting that there existed no "agreed regime for assigning direct responsibility to individuals in certain cases"[20]. This was opposed on the ground that the activities involved were *per se* lawful or otherwise not prohibited. This prompted Barbosa to propose in his tenth (1994) and twelfth (1996) reports assignment of liability to the State of origin for failure to comply with its duty of due diligence and liability *sine delicto* to the operator for transboundary harm[21].

However, another issue that required resolution was about conditions under which the State of origin should be held responsible for harm arising from activities conducted within its jurisdiction and control. In this connection, the issue was whether the State of origin could be held accountable even if it did not have any real or effective control over the management of the risks associated with the activity. Developing countries, in addition, also did not have any knowledge or means to ascertain the risks associated with the activities conducted essentially under the control and supervision of a multinational corporation registered in another country. The case at hand was the Bhopal Gas tragedy suffered by India on account of a chemical plant controlled and managed by Union Carbide with headquarters in the United States of America. Keeping these concerns in view, Barbosa proposed in 1989, draft art. 3[22], according to which the State of origin would be accountable only if "it knew or had means of knowing" that the activity permitted within its territory or control carried or could carry "an appreciable risk of causing, transboundary harm throughout the process"[23]. But this proposal was later revised to read that unless there was evidence to the contrary, "it shall be presumed that the State of origin has the knowledge or the means of knowing" the risks or risks likely to arise in respect of activities conducted within its jurisdiction or control[24]. This proposal and the presumption it involved did not meet the legitimate concerns of a wide group of developing countries

---

[18] *Iibd.*, Annex: Schematic outline, Section 2(8).

[19] According to Section 2(8) of the schematic outline, unless otherwise agreed "the acting State has a continuing duty to keep under review the activity that gives or may give rise to loss or injury; to take whatever remedial measures it considers necessary and feasible to safeguard the interests of the affected State; and, as far as possible, to provide information to the affected State about the action it is taking". Section 3(4) of the schematic outline was to the same effect. See *ibid.*, Annex: Schematic outline, Section 2(8) and 3(4).

[20] Barbosa proposed under art. 1 that a State be held liable when physical consequences of activities carried on in its territory or in other places under its jurisdiction or control caused or created an "appreciable" risk of causing transboundary harm. See the "Second report on international liability for injurious consequences arising out of acts not prohibited by international law, by Julio Barbosa, the Special Rapporteur" (A/CN.4/402), para. 5, in *Yearbook of the International Law Commission 1986*, vol. II, Part One.

[21] For a review of the debate on this matter and the rationale behind the proposals made in his tenth (1994) and twelfth (1996) reports, see the statement of Barbosa while introducing his twelfth report (A/CN.4/475 and Add.1) at the 2450th meeting of the ILC, see summary records of the meeting, paras. 11, 14, 15, 17-18, 20, in *Yearbook of the International Law Commission 1996*, vol. I.

[22] Draft article 3 reads: "The State of origin shall have the obligations established by the present articles provided that it knew or had means of knowing that an activity referred to in article 1 was being, or was about to be, carried on in its territory or in other places under its jurisdiction or control." See the "Fifth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barbosa, Special Rapporteur" (A/CN.4/423), para. 16, in *Yearbook of the International Law Commission 1989*, vol. II, Part One.

[23] Draft article 1, see *ibid.*

[24] Draft article 3, see *ibid.*

undergoing rapid economic growth in collaboration with multinational corporations registered outside their jurisdictions.

The question of whether prevention *ex-post* should be regarded as a component of the duty of prevention also gave rise to different views. Prevention *ex post* refers to measures taken or to be taken by the State of origin, such as restoration or rehabilitation of the situation after the accident occurred, aiming at containing or minimizing harm and preventing the same from resulting in transboundary harm. Draft art. 14 proposed by Barbosa dealt with prevention *ex post* which obliged the State of origin to impose duties on the operator of a risk-bearing activity to contain or minimize the harm arising from an accident. The Commission did not approve the draft art. 14 in 1994 but did so upon further consideration in 1995.

However, in 1996, a Working Group of the ILC, in response to a call from the UNGA in 1995, prepared a complete set of draft articles, with commentaries "to see if provisional solutions to some unresolved questions could be arrived"[25]. These draft articles dealt with prevention and remedial measures, including the distribution of losses arising from transboundary harm. They followed the lead set by the work of the ILC on the law of non-navigational uses of international watercourses finalized in 1994[26].

As part of the exercise in 1996, Barbosa considered extending the scope of the topic to activities that caused harm to global commons *per se.* A review of State practice indicated that the subject matter was dealt with either by identifying certain harmful substances, prohibiting their use, or banning activities in areas or parts of areas considered as global commons[27]. It was understood that prohibitions thus negotiated and agreed would come under the law of State responsibility, if violated. On the other hand, it was observed that harm caused to global commons or the environment *per se* without incidental detrimental, quantifiable and physical effects on persons or property or natural resources within the territory or in areas under the jurisdiction or control of one State could not readily be brought within the scope of international liability topic[28].

With respect to the broad approach, the 1996 draft articles were based on the policy that States should have the choice to select a regime that was mutually agreeable reflecting their multiple and legitimate interests. A principal objective of such regimes should be, it was stressed, to facilitate and not prohibit activities which were predominantly beneficial to society despite their adverse effects. The draft articles also indicated the duty to cooperate, highlighting the desirability of negotiated agreements between the State of origin and the State(s) exposed to the risk of transboundary harm, addressing, among others, the kind of harm (whether foreseeable or not[29]), the type of harm (at what level of threshold, significant or substantial), and quantum of reparation,

---

[25] "Report of the International Law Commission on the work of its forty-eighth session (6 May - 26 July 1996) ", *Official Records of the General Assembly, Fifty-first session, Supplement No.10* (A/51/10), Annex I, para. 1. For the text of the draft articles, see *ibid*., Annex I(B).

[26] For the ILC's work on the law of non-navigational uses of international watercourses, see https://legal.un.org/ilc/guide/8_3.shtml.

[27] See examples cited in the "Sixth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barbosa, Special Rapporteur" (A/CN.4/428 & Corr.1-4 and Add.1), fn. 105, in *Yearbook of the International Law Commission 1990*, vol. II, Part One. Other examples include the 1954 International Convention for the Prevention of Pollution of the Sea by Oil (United Nations, *Treaty Series*, vol. 327, p. 3), and the 1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water (United Nations, *Treaty Series*, vol. 480, p. 45).

[28] For more information in this regard, see the sixth report by Mr. Julio Barbosa, Special Rapporteur (see footnote 27), para. 77. On issues relating to harm to global commons and compensation paid in some specific cases, even prior to the present ecological era, and its treatment as part of the work of the UN Compensation Commission established by the Security Council to deal with the responsibility of Iraq, see also Alexandre Kiss and Dinah Shelton, *International Environmental Law* (Third Edition), Transnational Publishers Inc, Ardsley, New York, 2004, pp. 325-330.

[29] Special Rapporteur Mr. Robert Q. Quentin Baxter and Special Rapporteur Mr. Julio Barbosa both expressed their views on this point in their reports. As for the views of the former, see para. 28 of the fourth report by Mr. Robert Q. Quentin-Baxter (see footnote 13) and the text of art. 2(1) of the schematic outline (see footnote 17). As for the views of the latter, see the "Third Report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur" (A/CN.4/405), para. 14, in *Yearbook of the International Law Commission 1987*, vol. II, Part One; art. 16 of the Annex in his "Sixth report" (see footnote 27); art. 1 of the Annex in the "Eighth Report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur"

considering any change in circumstances affecting the occurrence of harm, including the question of sharing of costs. In addition, such agreed arrangements could settle applicable standards and establish joint councils or institutions, keeping in view their legitimate expectations and multiple interests and reconciling them in common interest[30].

International liability for transboundary harm: duty to prevent and allocation of loss in case of harm

At the beginning of a new quinquennium of the ILC in 1997, the Commission appointed Pemmaraju Sreenivasa Rao as the Special Rapporteur for the topic. A Working Group chaired by Chusei Yamada reviewed the work of the ILC as of 1996. It recommended that the Commission should divide the topic into two parts, one on prevention and the other on liability, assigning priority to the work on prevention, as it found considerable progress on that aspect. However, regarding the work concerning liability (or allocation of loss) in case of harm, it observed that while a majority of States favored[31] completion of the work at hand, a few others preferred abandonment of work on that aspect altogether[32]. The Commission decided to postpone any decision on the allocation of loss in case of harm until the completion of the project on prevention.

Accordingly, based on the proposals made by the Special Rapporteur[33], the Commission gave priority to the work on prevention in 1998 and finalized a set of draft articles in its first reading[34]. The scope of the 1998 draft articles is confined to activities that cause "significant transboundary harm through their physical consequences"[35]. "Harm" was defined as "harm caused to persons, property or the environment"[36]. The definition of "Affected State" is suitably modified to define "State likely to be affected"[37]. States were obliged to take "all appropriate measures to prevent, or to minimize the risk of, significant transboundary harm"[38].

In brief, the proposals the ILC adopted in 1998 first retained the scope of the draft articles as recommended by its Working Group in 1996. An effort, however, was made to provide greater specificity to the principle of due diligence in draft art. 3 (corresponding to art. 4 of the 1996 draft articles), weaving it around the principles of prior authorization, notification, and international cooperation, identified originally under the Schematic outline, aimed at

---

(A/CN.4/443), in *Yearbook of the International Law Commission 1992*, vol. II, Part One; and the "Ninth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur" (A/CN.4/450), para. 25, in *Yearbook of the International Law Commission 1993*, vol. II, Part One.

[30] Draft article 19 of the 1996 draft articles corresponds to article 12 of the 1998 draft articles finalized by the Commission in its first reading which noted some factors that the concerned States could keep in view while negotiating mutually agreeable arrangements to regulate hazardous activities based on common interests. For the 1996 draft articles, see Annex I of the ILC report 1996 (see footnote 25); for the 1998 draft articles, see "Report of the International Law Commission on the work of its fiftieth session (20 April - 12 June and 27 July - 14 August 1998) ", *Official Records of the General Assembly, Fifty-third session, Supplement No.10* (A/53/10), para. 55.

[31] See the statements of Mexico (A/C.6/52/SR.17, para. 27), Italy (A/C.6/52/SR.23, para. 12), New Zealand (A/C.6/52/SR. 23, para. 28), Portugal (A/C.6/52/SR.24, paras. 62-63), Brazil (A/C.6/52/SR.25, para. 16), Republic of Korea (A/C.6/52/SR.25, para. 38), Argentina (A/C.6/52/SR.25, para. 43) and China (A/C.6/52/SR.23, para. 6).

[32] See the statement of the delegation of the Czech Republic (A/C.6/52/SR.23, para. 66), Japan (A/C.6/52/SR.24, para. 3) and the United Kingdom (A/C.6/52/SR.19, para. 48).

[33] Departing from the 1996 draft proposals, the 1998 draft proposals essentially confined the scope and language of draft articles only to deal with activities that carry a risk of causing "significant" transboundary harm and decided not to extend the same to include reference to harm occurring or occurred because of activities. For a statement of the Special Rapporteur on the proposals he made in 1998, departing from the draft proposals made in 1996, see summary records of the 2542nd meeting of the ILC, paras. 43-59, in *Yearbook of the International Law Commission 1998*, vol. I. For a note on the work done from 1978- 1997, and recommendations made to advance the work towards its early conclusion, see the “First Report on international liability for injurious consequences arising out of acts not prohibited by international law”, by Mr. Pemmaraju Sreenivasa Rao, Special Rapporteur (A/CN.4/487 and Add.1), in *Yearbook of the International Law Commission 1998*, vol. II, Part One.

[34] Mostly, the proposals made by the Special Rapporteur in 1998 were approved by the ILC based on the recommendations of the Drafting Committee, with some useful additions/modifications, for example, in articles 5, 6 and 7. Article 8 was split into two articles, articles 8 (reflecting former art. 8, para. 1) and 9 (reflecting the content of former art. 8, para. 2). Art. 8 on impact assessment as revised does not expressly refer to persons, property or environment.

[35] Art. 1 of the 1998 draft articles (see footnote 30).

[36] *Ibid*., art. 2(b).

[37] *Ibid*., art. 2(e).

[38] *Ibid*., art. 3.

balancing "legitimate interests and multiple factors", including those that were concerned with environmental sustainability. The State of origin was entrusted with the duty of due diligence. These, in turn, obliged it to adopt suitable legislative and administrative procedures which, among others, required operators to seek prior authorization for undertaking hazardous activities within its territory or in areas under its control. The requirement of risk assessment, in addition, included the risk of transboundary harm and an EIA.

The nature of risk assessment could vary, among other things, from activity to activity, the type of activity, materials to be used, and its location. It was also clear that any assessment based on uncertain scientific evidence was bound to be subjective. Given the uncertainties thus involved, and the varying standards that are applicable in developing States as opposed to technologically and economically developed States, no uniform format or common procedure was considered possible to be suggested for adoption by States[39]. On the standard of care that ought to be employed by the State of origin, in compliance with its duty of due diligence, criteria varied from that of "good government"[40] to "vigilance consonant with a State's degree of development"[41]. But even in the latter case, a minimal degree of vigilance, employment of infrastructure, and monitoring of hazardous activities in the territory of the State, which is a natural attribute of any government, is expected[42]. Accordingly, the government concerned should possess, on a permanent basis, a legal system and material resources sufficient to ensure the fulfillment of its international obligations. To that end, the State must also establish and maintain an adequate administrative apparatus, including "suitable monitoring mechanisms"[43].

The requirement of impact assessment imposed on the operator as an essential part of seeking authorization for the conduct of a hazardous activity from the State of origin is projected more, as observed by a commentator, as "a progressive trend in international law"[44]. It is recommended that any such risk assessment should facilitate public participation, involving, as far as possible, even the public from the neighboring States likely to be affected. A potential problem associated with the implementation of the principle of public participation, including the participation of potential national and foreign "victims" on equal footing based on non-discrimination, lies in the fact that there are sometimes drastic differences between the substantive remedies provided under the laws of different States[45].

The draft articles of 1998 further obliged the State of origin to notify State or States likely to be affected if the impact assessment indicates a risk of significant transboundary harm with all the necessary information, including the results of any assessment made. This requirement is considered much more imperative in the case of shared natural resources. It is believed that such a notification could assist either a joint or separate but simultaneous effort on the part of all the States concerned to make necessary inputs for finalizing the EIA. In any case, States

---

[39] Mr. Quentin-Baxter and Mr. Barboza conceived the standard of due diligence applicable to the principle of prevention to be flexible, see footnotes 14, 15 and 16; and the ninth report by Mr. Julio Barboza, Special Rapporteur (see footnote 29), paras. 8, 76.

[40] See remarks by Mr. Simma at the 2528th meeting of the ILC, summary records of the meeting, para. 47, in *Yearbook of the International Law Commission 1998*, vol. I; Pierre Dupuy, "Due diligence in the international law of liability", in Organisation for Economic Co-operation and Development (OECD), *Legal Aspects of Transfrontier Pollution*, OECD, Paris, 1977, p. 373.

[41] Remarks by Mr. Shi at the 2065th meeting of the ILC, see the summary records of the meeting, para. 16, in *Yearbook of the International Law Commission 1988*, vol. I.

[42] Max Huber observed in the British claims in the Spanish Zone of Morocco case that a minimal degree of vigilance and employment of infrastructure and monitoring of activities in its territory was a natural attribute of any Government. See «Affaire des biens britanniques au Maroc espagnol (Espagne contre Royaume-Uni)», in United Nations, *Reports of International Arbitral Awards*, vol. II, p. 644.

[43] On the significance of the words "suitable monitoring mechanism" introduced by the Drafting Committee of the ILC in 1998, please see the remarks by Mr. Simma, Chair of the Drafting Committee, at the 2560th meeting of the ILC, summary records of the meeting, para. 67, in *Yearbook of the International Law Commission 1998*, vol. I.

[44] See the comment made with respect to such a requirement projected under the Antarctic Treaty System and general rules of environmental law by L. Pineschi, "The Antarctic Treaty System and the General Rules of International Environmental Law", in F. Francioni and T. Scovazzi (eds.), *International Law for Antarctica*, Giuffrè Editore, Milan, 1987, p. 187.

[45] See "Liability regimes relevant to the topic 'International liability for injurious consequences arising out of acts not prohibited by international law': survey prepared by the Secretariat" (A/CN.4/471), paras. 118-129, in *Yearbook of the International Law Commission 1995*, vol. II, Part One.

likely to be affected would have the right to seek such additional information as they feel necessary to safeguard their interests[46].

The duty to notify, consult and negotiate an agreement in good faith, however, as part of the duty to prevent, does not mean that the State of origin is under a duty to seek prior consent from the States likely to be affected, nor does it mean that those States have a right of veto over the proposed activity or plan of action which is under consideration of the State of origin for the necessary authorization.

This raises the question of settlement of disputes in case of lack of agreement between the State of origin and the States likely to be affected concerning the means and methods needed to prevent transboundary harm or, at any rate, mitigate the harm that could not be prevented. It is understood that the duty of due diligence, employed in different sectors, is regarded only as an obligation of conduct. They do not hence give rise to State responsibility in case of harm despite compliance by the State concerned with its duty of due diligence. Accordingly, a dispute between the concerned States is expected to be settled by peaceful means, apart from resorting to various techniques aimed at avoidance of the dispute. In this regard, many members of the ILC opposed any system of compulsory settlement of disputes. On the other hand, as disputes in such cases would inevitably center around questions of fact and evidence on the nature and magnitude of risk of harm, there was general agreement to include a draft article on compulsory fact-finding to facilitate avoidance of dispute, failing which, resolution of the dispute by choice of means to be freely chosen by the parties.

The discussion on the duty of due diligence and legal consequences attendant upon non-compliance lead to different views on the ways and means of dealing with them[47]. One strand of thought was centered around making the duty as specific as possible, attaching appropriate legal sanctions in case of failure to discharge the duty, and not leaving it as a mere negotiable duty with variable standards[48]. Others cautioned against any such attempt, apart from several States and scholars who took the view that the duty of due diligence was an abstract concept and could only be particularized in a given context and in respect of specific activities[49]. In this regard, it was suggested that the objective of implementation of international obligations would be better served by promoting the culture of compliance or voluntary enforcement of such obligations. It was noted that the effectiveness of compliance with or enforcement of due diligence obligations might depend upon several factors. Nevertheless, given the fact that States often were unable to comply with the duty of due diligence for lack of necessary scientific knowledge, technology and financial resources, strategies of compliance based on the sunshine approaches, and incentives to comply, using sanctions only as a last resort was recommended, citing their usefulness in the context of the implementation of environmental obligations[50].

In sum, the comments noted above-raised issues concerning the scope of the topic, specification of activities to be covered, and further clarification of the concept of "significant harm", the relationship between

---

[46] The observation of the Arbitral Tribunal in the Lac Lanoux case, noting that the State likely to be affected by a planned activity in another State is the sole judge of that and has the right to information on the proposals. See «Affaire du lac Lanoux», in United Nations, *Reports of International Arbitral Awards*, vol. XII, p. 314.

[47] For a summary of the views of States, see "Third Report on international liability for injurious consequences arising out of acts not prohibited by international law (prevention of transboundary damage from hazardous activities), by Mr. Pemmaraju Sreenivasa Rao, Special Rapporteur" (A/CN.4/510), paras. 7-13, in *Yearbook of the International Law Commission 2000*, vol. II, Part One; see also "Second Report on international liability for injurious consequences arising out of acts not prohibited by international law (prevention of transboundary damage from hazardous activities), by Mr. Pemmaraju Sreenivada Rao, Special Rapporteur" (A/CN.4/501), paras. 3-16, in *Yearbook of the International Law Commission 1999*, vol. II, Part One.

[48] On the need to make the duty of due diligence as specific and uniform as possible, see remarks by Mr. Crawford at the 2528th meeting of the ILC, summary records of the meeting, para. 40, in *Yearbook of the International Law Commission 1998*, vol. I; and remarks by Mr. Simma, *ibid*, para. 47.

[49] See the views of Russia, Greece, United Republic of Tanzania, Switzerland, Italy and Slovakia, see "Third report by Mr. Pemmaraju Sreenivasa Rao, Special Rapporteur" (A/CN.4/510, see footnote 47), fns. 27 and 28. See also the views of Mr. Sreenivasa Rao, summary record of the 2531st meeting of the ILC, para. 20, in *Yearbook of the International Law Commission 1998*, vol. I.

[50] For a discussion of these aspects, see the "Second Report by Mr. Pemmaraju Sreenivasa Rao, Special Rapporteur" (A/CN.4/501, see footnote 47), paras. 35-49.

prevention and liability, liability and responsibility, differentiated responsibilities based on considerations of equity and commonly applicable duties of due diligence and the specification of fixed time limits for exchange of information between the States concerned under arts. 10, 11 and 13.

The Special Rapporteur submitted a revised set of draft articles along with a preamble to the ILC in 2000. The Drafting Committee finalized a revised set of 19 draft articles in 2001 by way of a framework convention, which the ILC adopted along with commentaries recommending their adoption by the UNGA.

The 2001 draft articles and the development of the law concerning the prevention of transboundary harm

(i). The International Court of Justice and the 2001 draft articles on prevention: the Pulp Mills case (2010).

The International Court of Justice (hereinafter " the Court" or "the ICJ") had an occasion in the Pulp Mills case (2010)[51] for the first time to deal with issues of due diligence and the duty of cooperation associated with the duty to prevent transboundary harm. The case involved the management of the River Uruguay, which constitutes the joint boundary between Argentina and Uruguay. Under a bilateral agreement, the Statute of the River Uruguay was concluded between the two States on 26 February 1975. The duty to cooperate in the present case, the Court noted[52], required Uruguay first to seek the preliminary assessment of the risk of transboundary harm from the joint administrative machinery that the parties established under the 1975 Statute. The dispute involved the authorization of pulp mills and the construction of a port terminal by Uruguay without informing and engaging Argentina as part of its duties of cooperation and other requirements under the 1975 Statute. The Court, in this connection, underlined the existence of a functional link, in regard to prevention, between the procedural obligations and the substantive obligations; responsibility in the event of breaches of either category; obligation to inform, notify and negotiate as an appropriate means of achieving the objective of optimum and rational utilization of the river as a shared resource, need for an environmental assessment; and notification of the EIA to the other party, through the binational Administrative Commission of the Uruguay River, before any decision on the environmental viability of the plan. This, in turn, entailed a duty on the part of Uruguay to notify Argentina and to enter into meaningful and good-faith negotiations with a view to preventing any harm or, in any case, mitigating or reducing its effects. The case also provided an occasion for the Court to clarify that the duty to negotiate in good faith, however, did not give rise to a right of veto on the part of Argentina, the State likely to be affected, and allowed Uruguay to proceed with the project if it considered it as essential at its own risk. The Court found that Uruguay failed to observe the procedural obligation that it was under a duty to honor but held that a declaratory judgment was enough by way of remedy in the absence of any violation of substantive obligations or injuries associated with them. Finally, the Court emphasized the continuing duties of Uruguay and Argentina to cooperate through the joint institutional mechanism they established.

(ii). The 2011 Advisory Opinion of the Chamber of the International Tribunal of the Law of the Sea and the 2001 draft articles on prevention.

The 2001 draft articles on prevention and the due diligence obligations it imposed on the State of origin to prevent transboundary harm came up for consideration in connection with activities in the international seabed area beyond national jurisdiction (hereinafter "the Area") as part of an advisory opinion sought by the International Seabed Authority (hereinafter "the ISA") established under the 1982 UNCLOS from the International Tribunal for the Law of the Sea.

It may be recalled that under the UNCLOS, the ISA is invested with the authority and control over the exploration and exploitation of seabed resources in the Area. States parties to the UNCLOS could engage either directly by themselves or through operators they sponsor to engage in such activities in the Area under a license from the Authority. The ISA adopted Regulations on the Prospecting and Exploration of Polymetallic Nodules in the

[51] International Court of Justice, *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010*, p. 14.
[52] See International Court of Justice, *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Summary 2010/1*, Summary of the Judgment of 20 April 2010, available at https://www.icj-cij.org/case/135/summaries.

Area on 13 July 2000 (updated and adopted on 25 July 2013); the Regulations on Prospecting and Exploration for Polymetallic Sulphides in the Area on 7 May 2010; and the Regulations on Prospecting and Exploration for Cobalt-Rich Crusts (on 27 July 2012). The complete set of these regulations constitutes the Mining Code, together with recommendations by ISA's Legal and Technical Commission for the guidance of contractors, including those on the assessment of the environmental impacts of exploration for polymetallic nodules.

The ISA sought clarification by way of an advisory opinion of the legal responsibilities and oblations of States Parties to the Convention with respect to the sponsorship of activities in the Area in accordance with the Convention, in particular Part XI and the 1994 Agreement relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982. In this connection, it sought advice on the extent of liability of a State Party for any failure to comply with the provisions of the Convention by an entity whom it has sponsored under art. 153 paragraph 2(b) of the Convention; and the necessary and appropriate measures that a sponsoring State must take in order to fulfill its responsibility under the Convention, in particular art. 139 and Annex Ill, and the 1994 Agreement.

The Advisory Opinion of the Seabed Chamber (hereinafter "the Chamber") rendered in 2011 endorsed the due diligence obligations of States and their sponsored contractors in respect of the exploration of activities undertaken in the Area.[53] On the question of liability for any damage, arising out of these activities, the Chamber made it clear that such a liability to be attached to the sponsoring State, there should be a "causal link" between the failure on the part of that State to comply with its due diligence obligations[54] and damage caused by the sponsored contractor. This causal link, as the Chamber made it clear, however, could not be presumed and must be established. It is clear, therefore, as the Chamber pointed out, that the Sponsored State "is absolved from liability if it has taken 'all necessary and appropriate measures to secure effective compliance' by the sponsored contractor with its obligations"[55].

As the Chamber opinion further noted:

> This exemption noted above however does not apply in certain cases and is limited otherwise This exemption from liability does not apply to the failure of the sponsoring State to carry out its direct obligations. The liability of the sponsoring State and that of the sponsored contractor exist in parallel and are not joint and several. The sponsoring State has no residual liability. Multiple sponsors incur joint and several liability, unless otherwise provided in the Regulations of the Authority. The liability of the sponsoring State shall be for the actual amount of the damage. Under the Nodules Regulations and the Sulphides Regulations, the contractor remains liable for damage even after the completion of the exploration phase. This is equally valid for the liability of the sponsoring State. The rules on liability set out in the Convention and related instruments are without prejudice to the rules of international law[56].

Further, according to the Chamber, "Where sponsoring State has met its obligations, damage caused by the sponsored contractor does not give rise to the sponsoring State's liability. If the sponsoring State has failed to fulfill its obligation, but no damage has occurred, the consequences of a such wrongful act are determined by customary international law"[57].

To cover the costs of reparation in such a case, the Chamber felt it useful to establish "a trust fund to cover the damage not covered under the Convention"[58].

---

[53] International Tribunal for the Law of the Sea, *Responsibilities and obligations of States with respect to activities in the Area, Advisory Opinion, 1 February 2011, ITLOS Reports 2011,* p. 10.
[54] *Ibid.*, para. 75.
[55] *Ibid.,* para. 76.
[56] *Ibid.*
[57] *Ibid.*, para. 77.
[58] *Ibid.*

It can be seen from the above that the Chamber of the ITLOS not only applied the well-established principles of due diligence as set out by the 2001 ILC draft articles on prevention and endorsed by the ICJ in the Pulp Mills case but, in the process, further clarified the nature and scope of the separate but parallel obligations of the sponsoring State and the sponsored contractors or operators. In addition, the Chamber took the opportunity to strengthen the role of and significance of the precautionary approach as an integral part of the general obligation of due diligence of sponsoring States. With respect to the status of the precautionary approach, the Chamber observed that having "established that under the Nodules Regulations and the Sulphides Regulations, both sponsoring States and the Authority are under an obligation to apply the precautionary approach in respect of activities in the Area, it is appropriate to point out that the precautionary approach is also an integral part of the general obligation of due diligence of sponsoring States, which is applicable even outside the scope of the Regulations"[59].

Accordingly, it noted that the "due diligence obligation of the sponsoring States requires them to take all appropriate measures to prevent damage that might result from the activities of contractors that they sponsor"[60]. This obligation, as the Chamber clarified, "applies in situations where scientific evidence concerning the scope and potential negative impact of the activity in question is insufficient but where there are plausible indications of potential risks"[61]. Under the circumstances, a "sponsoring State would not meet its obligation of due diligence if it disregarded those risks. Such disregard would amount to a failure to comply with the precautionary approach"[62].

(iii). The ICJ cases of 2015 and the 2001 draft articles on prevention.

Two other cases before the ICJ also raised issues concerning obligations of due diligence to prevent transboundary harm, including the protection of the environment. These came up for consideration by the ICJ in 2015 in *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua)* and *Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica).*[63] They involved two different categories of principles: first, general principles of international law including respect for territorial integrity, sovereignty and the prohibition against the use of force; and second, fundamental principles of environmental law, including the obligation to exercise due diligence in preventing significant transboundary harm, and the related requirements--conducting an EIA, and notification and consultation with States likely to be affected. On the first issue, the Court found that Nicaragua was responsible for the harm caused by its activities in breach of Costa Rica's territorial sovereignty[64].

On the second set of issues, while subscribing to the due diligence principles well established in this regard, the Parties disagreed on their application to the facts of the case at hand.

The Court found that neither Costa Rica nor Nicaragua proved significant transboundary harm on account of the actions of their neighbor. After clarifying the relevant principles governing the obligation to conduct an EIA, the Court reiterated the salient principles that "are inherent in the nature of an environmental impact assessment"[65]. In this respect, the Court held that Costa Rica was in breach of its obligation to carry out an EIA before embarking on the construction of the road along the San Juan River. However, in respect of the project for dredging of the San Juan River undertaken by Nicaragua, the Court found that "Nicaragua was not under an international obligation to

[59] *Ibid*., para. 131.
[60] *Ibid.*
[61] *Ibid*.
[62] *Ibid*.
[63] International Court of Justice, *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment, I.C.J. Reports 2015*, p. 665.
[64] *Ibid*., paras. 92-93.
[65] As well noted by Judge Ad Hoc John Dugard in his separate opinion. See International Court of Justice, *Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment of 16 December 2015, Separate opinion of Judge ad hoc Dugard*, para. 19, available at https://www.icj-cij.org/case/152/judgments.

carry out an environmental impact assessment in light of the absence of risk of significant transboundary harm…", and hence "it was not required to notify, or consult with, Costa Rica"[66].

(iv). Cross border cyberattacks, investments, human rights, and international crimes: principles governing the application of due diligence.

The principles governing the prevention of transboundary harm, articulated by the ILC, as noted above, have since been considered as part of customary international law, thanks to the judicial confirmation of its various components: the duty of due diligence (conduct that is appropriate and proportional to the degree of risk), the requirement of prior authorization based on an assessment of the risk of transboundary harm in respect of any activity or project bearing such a risk (with a causal link between the activity and harm), and the duty to cooperate with the State or States likely to be affected. The duty to cooperate, in turn, involves the duty to inform, consult and negotiate in good faith with State or States likely to be affected to arrive, as far as possible, at arrangements mutually agreed upon or joint management of the risk and the activity itself. These duties have since become a "standard of care" that apply in all matters relating to the protection and preservation of the international environment, including biodiversity, management of natural resources, and reasonable use and enjoyment of international rivers.

Some or more of the components of the "standard of care" thus noted may be considered applicable to other more recent concerns arising from cyberattacks. According to Akiko Takano, there are significant similarities between environment and cyber security in terms of concerns they raise: "[S]ignificant transboundary environmental harm may affect the physical or nonphysical, such as with financial loss and damage to natural resources, which states are expected to manage, whereas cyberattacks may result in serious risks to national infrastructure, financial loss, and nonphysical risks such as privacy, and possibly physical risks, as they 'endanger their health and lives'"[67].

In the latter case also, it is suggested that there is a good reason why the duty of cooperation[68] should be treated as essential. These duties in the case of preserving cybersecurity could result, according to the author, in the duty of cyber-diligence, prevention, information sharing and security.

As noted above, individuals or private entities acting within a state's jurisdiction are required to respect the laws of the State within the jurisdiction of which they operate. Where activities are conducted by a private person or enterprise, the State is obliged, as part of its duty of due diligence and good governance, to establish an appropriate regulatory framework and apply it. This obligation of a State to prevent their territories from being used by private persons or entities, violating the legal rights of other States is age-old and well-established under customary law[69]. Further, as Akakino asserted: "[D]ue diligence of transboundary harm in environmental law is a developing concept and can be adapted to the new digital age"[70].

---

[66] International Court of Justice, *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment, I.C.J. Reports 2015*, para. 108.

[67] See Oren Gross, "Cyber Responsibility to Protect: Legal Obligations of States Directly Affected by Cyber-Incidents", *Cornell International Law Journal*, vol. 48, 2015, p. 481, cited in Akiko Takano, "Due Diligence Obligations and Transboundary Environmental Harm: Cybersecurity Applications", *Laws*, vol. 7(4), 2018, pp. 6-7.

[68] Akiko Takano, "Due Diligence Obligations and Transboundary Environmental Harm: Cybersecurity Applications", *Laws*, vol. 7(4), 2018, p. 4. The "duty to co-operate", according to the author, is an essential procedural duty that includes "the duty to notify and consult with the concerned states, the obligation to conduct an environmental impact assessment (EIA), and the principle of prior informed consent".

[69] *Ibid*., p. 9, citing Russell Buchan, "Cyberspace, non-state actors and the obligation to prevent transboundary harm", *Journal of Conflict and Security Law*, vol. 21, 2016, pp. 429–53. See also ILA Study Group on Due Diligence in International Law, *First Report*, Duncan French (Chair) and Tim Stephens (Rapporteur), 7 March 2014, available at https://www.ila-hq.org/en_GB/documents/first-report-washington-dc-2014.

[70] In this connection the author observed that "As in the case of environmental harm, from a transborder perspective, the due diligence principle is applicable to cyberspace considering its unique nature". Akiko Takano, "Due Diligence Obligations and Transboundary Environmental Harm: Cybersecurity Applications", *Laws*, vol. 7(4), 2018, p. 11.

(v). Clarification of the Concept of Due Diligence: The work of the International Law Association.

Duty of due diligence and the standard of care is often invoked in other areas also, such as international investment law, international human rights, and transnational criminal law[71]. However, an analysis of the due diligence standard that is considered applicable in such areas reveals that, while the content of due diligence cannot be precisely defined, a series of objective factors may be taken into account in determining the content of the due diligence obligation in any particular case. These include the degree of effectiveness of the State's control over certain areas of its territory, the degree of predictability of harm, and the importance of the interest to be protected[72]. While the duty of due care required could differ from case to case, the standard of reasonableness is a recurrent theme in each of those cases[73].

The International Law Association (hereinafter "the ILA") Study Group on Due Diligence in its second report which endorses those broad understandings goes on to note that the content of the due diligence obligation is left flexible, not only because "the degree of diligence required of States varies according to the primary rule in question"[74], which "can and do evolve over time"[75], but also because to serve "a broader international community objective to ensure that States with limited economic capacity can participate in the international legal system without being burdened by unreasonable normative demands"[76].

Further, the second report of the ILA Study Group noted that, while reasonableness is an abstract and overarching standard, in assessing whether a State has complied with its due diligence obligations is weighed against several objective criteria[77]: good governance (in reference, for example, to the case of protection of environment and investments), national treatment (in the case of protection of aliens), control over the territory (in the case of application of international humanitarian law) and effective or overall control (in matters of attribution of responsibility to the State for violations involving the use of force by non-State actors), knowledge of an activity or potential risk (Corfu Channel case), and bad faith or refusal to take or the lack of any measure in preventing the harm.

The second report also provided a broad clarification of the relationship between the discharge of due diligence obligations of a State and its economic capacity to do so, keeping in view the principle referred to as the common but differentiated responsibilities[78]. Reference is made in this connection to the advisory opinion of the Chamber of the ITLOS which noted that the capabilities of a State should be assessed "in light of all the circumstances, including the resources, knowledge and technological capability available in fact in each case"; and that the Chamber "no doubt had in mind the scientific expertise of the private contractors that the State in question sponsors"[79].

---

[71] See ILA Study Group on Due Diligence in International Law, *First Report*, Duncan French (Chair) and Tim Stephens (Rapporteur), 7 March 2014, available at https://www.ila-hq.org/en_GB/documents/first-report-washington-dc-2014.
[72] *Ibid*., p. 3.
[73] See *ibid*., fn. 53, p. 9, citing International Centre for the Settlement of Investment Disputes, *Asian Agricultural Products Ltd. v. Republic of Sri Lanka, ICSID Case No. ARB/87/3, Final Award*, June 27, 1990, para. 85, p. 562, sub (c); See also *ibid*., fn. 65, p. 10, citing Andrew Newcombe and Lluis Paradell, *Law and Practice of Investment Treaties: Standards of Treatment*, Kluwer Law International B.V., 2009, p. 310, para. 6.44.
[74] ILA Study Group on Due Diligence in International Law, *Second Report*, July 2016, Tim Stephens (Rapporteur) and Duncan French (Chair), fn. 80, available at https://www.ila-hq.org/en_GB/documents/draft-study-group-report-johannesburg-2016. Illustration of this principle is found in cases of the obligations to prevent genocide, the standard of care applied in respect of the inherently hazardous character of activities including the need to take a precautionary approach.
[75] Advances in scientific understanding and technological capabilities can also increase the degree of care required over time. *Ibid.*, pp. 21-22.
[76] *Ibid*., p. 3. On the variable nature of the application of the standard of due care inherent in the due diligence obligations in respect of developing countries, see also pp. 15-18.
[77] *Ibid*., pp. 7-13. We may also note that it "is possible to view differentiated responsibilities in a number of areas of international law not as variable standards of due diligence but rather as differentiated results". *Ibid*., p. 22.
[78] Closely associated with the concept of common but differentiated responsibility is the enhanced duties of developed States. See *Ibid*., pp. 16-17.
[79] *Ibid.*, p. 14.

In sum, obligations of due diligence, the duty of prior authorization based on an assessment of the transboundary impact of foreseeable physical consequences of the activity, and the duty to cooperate thus could progressively be extended to regulate not only hazardous activities but other areas noted above. However, given the scope of the draft articles on prevention, any significant risks of transboundary harm not related to the physical consequences of activities that cannot be attributed to any source or causal link, as is the case with issues concerning the protection of global commons or climate change, require treatment on a different basis.

But even in such cases, certain broad policy considerations that emphasize a number of principles developed since Rio Conference, following the 1972 Stockholm Conference that guided the work of the ILC, will have their impact on the enlargement and harmonization of international environmental law[80] "at all levels of governance from the global to the municipal"[81]. These principles include the principle of prevention, sustainable development, protection of the reasonable and equitable interests of the present and future generations, the obligation to conduct the EIA, common but differentiated responsibility, the principle of precaution, and polluter pays or internalizing economic and environmental costs.

This Introductory Note was finalized in May 2023.

Related Materials

A. Legal Instruments

International Convention for the Prevention of Pollution of the Sea by Oil, London, 12 May 1954, United Nations, *Treaty Series*, vol. 327, p. 3.

Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water, Moscow, 5 August 1963, United Nations, *Treaty Series*, vol. 480, p. 45.

Declaration of the United Nations Conference on the Human Environment, *Stockholm, 16 June 1972* (A/CONF.48/14/Rev.1).

International Law Commission, Principles on the Allocation of Loss in the Case of Transboundary Harm from Hazardous Activities, 2006.

B. Jurisprudence

Arbitral tribunal, Affaire des biens britanniques au Maroc espagnol (Espagne contre Royaume-Uni), 1 May 1925, United Nations, *Reports of International Arbitral Awards*, vol. II, p. 644.

Arbitral tribunal, Affaire du lac Lanoux, 16 November 1957, United Nations, *Reports of International Arbitral Awards*, vol. XII, p. 314.

---

[80] For example, the work of the ILC on the draft guidelines and preamble it adopted in 2018 on the protection of Atmosphere by the Drafting Committee (A/CN.4/L.909), see https://legal.un.org/docs/index.asp?symbol=A/CN.4/L.909.; also see comments of States on the 2018 draft guidelines and the recommendations of the Special Rapporteur, in "Sixth Report on the protection of the atmosphere, by Murase Shinya, Special Rapporteur" (A/CN.4/736), 11 February 2020 (discussed at its 72 session, convened in 2021 instead of 2020).

[81] Kiss and Shelton, see footnote 28, pp. 799-800. One prominent example of this feature can be found in the application of due diligence obligations enunciated by the Supreme Court of India in the A.P. Pollution Control Board v. Prof. M.V. Nayudu (Retd.) & Others), Writ Petition (Civil) No.17832 of 1997, 1994 (3) SCC.1, Judgement, 7 January 1999, delivered by Justice S.B. Majmudar, Justice M. Jagannadha Rao. This was a landmark case in the development of the Indian law protecting the environment and regulation of hazardous activities, citing the work of the ILC, and the principle of good governance.

International Court of Justice, *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Judgment, I.C.J. Reports 2010*, p. 14.

International Centre for the Settlement of Investment Disputes, *Asian Agricultural Products Ltd. v. Republic of Sri Lanka, ICSID Case No. ARB/87/3, Final Award*, 27 June 1990.

Supreme Court of India, *A.P. Pollution Control Board v. Prof. M.V. Nayudu (Retd.) & Others), Writ Petition (Civil) No.17832 of 1997, 1994 (3) SCC.1, Judgement*, 7 January 1999.

International Court of Justice, *Pulp Mills on the River Uruguay (Argentina v. Uruguay), Summary 2010/1*, 20 April 2010.

International Tribunal for the Law of the Sea, *Responsibilities and obligations of States with respect to activities in the Area, Advisory Opinion, 1 February 2011, ITLOS Reports 2011,* p. 10.

International Court of Justice, *Certain Activities Carried Out by Nicaragua in the Border Area (Costa Rica v. Nicaragua) and Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment, I.C.J. Reports 2015*, p. 665.

International Court of Justice, *Construction of a Road in Costa Rica along the San Juan River (Nicaragua v. Costa Rica), Judgment of 16 December 2015, Separate opinion of Judge ad hoc Dugard*, para. 19.

C. Documents

Second report on State responsibility, by Mr. Roberto Ago, Special Rapporteur (A/CN.4/233, reproduced in *Yearbook of the International Law Commission 1970*, vol. II).

Preliminary report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Robert Q. Quentin Baxter, Special Rapporteur (A/CN.4/334 and Add.1 and 2, reproduced in *Yearbook of International Law Commission 1980*, vol. II, Part One).

Second report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Robert Q. Quentin-Baxter, Special Rapporteur (A/CN.4/346 and Add.1 and 2, reproduced in *Yearbook of the International Law Commission 1981*, vol. II, Part One).

Third report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Robert Q. Quentin-Baxter, Special Rapporteur (A/CN.4/360 and Corr.1, reproduced in *Yearbook of the International Law Commission 1982*, vol. II, Part One).

Fourth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Robert Q. Quentin-Baxter, Special Rapporteur (A/CN.4/373, Corr.1 and Corr.2, reproduced in *Yearbook of the International Law Commission 1983*, vol. II, Part One).

Second report on international liability for injurious consequences arising out of acts not prohibited by international law, by Julio Barbosa, the Special Rapporteur (A/CN.4/402, reproduced in *Yearbook of the International Law Commission 1986*, vol. II, Part One).

Third Report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur (A/CN.4/405, reproduced in *Yearbook of the International Law Commission 1987*, vol. II, Part One).

International Law Commission, the fortieth session (9 May- 29 July 1988), Summary records of the 2065th meeting of 21 June 1988, in *Yearbook of the International Law Commission 1988*, vol. I (A/CN.4/SER.A/1988).

Fifth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barbosa, Special Rapporteur (A/CN.4/423, reproduced in *Yearbook of the International Law Commission 1989*, vol. II, Part One).

Sixth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barbosa, Special Rapporteur (A/CN.4/428 & Corr.1-4 and Add.1, reproduced in *Yearbook of the International Law Commission 1990*, vol. II, Part One).

Eighth Report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur (A/CN.4/443, reproduced in *Yearbook of the International Law Commission 1992*, vol. II, Part One).

Ninth report on international liability for injurious consequences arising out of acts not prohibited by international law, by Mr. Julio Barboza, Special Rapporteur (A/CN.4/450, reproduced in *Yearbook of the International Law Commission 1993*, vol. II, Part One).

Liability regimes relevant to the topic 'International liability for injurious consequences arising out of acts not prohibited by international law': survey prepared by the Secretariat (A/CN.4/471, reproduced in *Yearbook of the International Law Commission 1995*, vol. II, Part One).

International Law Commission, the forty-eighth session (6 May-26 July 1996), Summary records of the 2450th meeting of 28 June 1996, in *Yearbook of the International Law Commission 1996*, vol. I (A/CN.4/SER.A/1996).

Report of the International Law Commission on the work of its forty-eighth session, 6 May - 26 July 1996 (A/51/10, reproduced in *Yearbook of the International Law Commission 1996*, vol. II, Part Two).

Sixth Committee of the General Assembly, Summary records of meetings Nos. 17, 19, and 23 to 25 of the fifty-second regular session, held, respectively, from 30 to 31October 1997, and from 6 to 7 November 1997 (A/C.6/52/SR.17, 19 and 23-25).

International Law Commission, the fiftieth session (20 April-12 June 1998, 27 July-14 August 1998), Summary records of the 2528th meeting of 12 May 1998, the 2531st meeting of 15 May 1998, the 2542nd meeting of 5 June 1998, and the 2560th meeting of 12 August 1998, in *Yearbook of the International Law Commission 1998*, vol. I (A/CN.4/SER.A/1998).

Report of the International Law Commission on the work of its fiftieth session, 20 April - 12 June and 27 July - 14 August 1998 (A/53/10, reproduced in *Yearbook of the International Law Commission 1998*, vol. II, Part Two).

First Report on international liability for injurious consequences arising out of acts not prohibited by international law", by Mr. Pemmaraju Sreenivasa Rao, Special Rapporteur, (A/CN.4/487 and Add.1, reproduced in *Yearbook of the International Law Commission 1998*, vol. II, Part One).

Second Report on international liability for injurious consequences arising out of acts not prohibited by international law (prevention of transboundary damage from hazardous activities), by Mr. Pemmaraju Sreenivada Rao, Special Rapporteur (A/CN.4/501, reproduced in *Yearbook of the International Law Commission 1999*, vol. II, Part One).

Third Report on international liability for injurious consequences arising out of acts not prohibited by international law (prevention of transboundary damage from hazardous activities), by Mr. Pemmaraju Sreenivasa Rao, Special Rapporteur (A/CN.4/510, reproduced in *Yearbook of the International Law Commission 2000*, vol. II, Part One).

International Law Commission, Protection of the Atmosphere: Texts and titles of draft guidelines and preamble adopted by the Drafting Committee on first reading (A/CN.4/L.909), 2018.

Sixth Report on the protection of the atmosphere, by Murase Shinya, Special Rapporteur (A/CN.4/736), 11 February 2020.

D. Doctrine

P. Bernie and A. Boyle, *International Law & the Environment* (Second Edition), Oxford University Press, Oxford, 2002, pp. 471-472.

J. Crawford, *The International Law Commission's Articles on State Responsibility: Introduction, Text and Commentaries*, Cambridge University Press, Cambridge, 2002.

P. Dupuy, "Due diligence in the international law of liability", in *Organisation for Economic Co-operation and Development (OECD), Legal Aspects of Transfrontier Pollution, OECD,* Paris, 1977, p. 373.

A. Kiss and D. Shelton, *International Environmental Law* (Third Edition), Transnational Publishers Inc, Ardsley, New York, 2004, pp. 325-330.

L. Pineschi, "The Antarctic Treaty System and the General Rules of International Environmental Law", in F. Francioni and T. Scovazzi (eds.), *International Law for Antarctica*, Giuffrè Editore, Milan, 1987, p. 187.

R. Rosenstock, "The ILC and State Responsibility", *American Journal of International Law*, vol. 96, 2002, p. 795.

A. Takano, "Due Diligence Obligations and Transboundary Environmental Harm: Cybersecurity Applications", *Laws*, vol. 7(4), 2018, pp. 6-7.

E. Other documents

International Law Commission, law of non-navigational uses of international watercourses, see https://legal.un.org/ilc/guide/8_3.shtml.

International Law Association, ILA Study Group on Due Diligence in International Law, *First Report*, Duncan French (Chair) and Tim Stephens (Rapporteur), 7 March 2014, available at https://www.ila-hq.org/en_GB/documents/first-report-washington-dc-2014.

International Law Association, ILA Study Group on Due Diligence in International Law, *Second Report*, July 2016, Tim Stephens (Rapporteur) and Duncan French (Chair), available at https://www.ila-hq.org/en_GB/documents/draft-study-group-report-johannesburg-2016.