

INTERNATIONAL LAW AND OCEAN POLLUTION : THE PRESENT AND THE FUTURE

by

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I. INTRODUCTION

The present study, devoted to international law aspects of ocean pollution, purports to relate briefly what has been done, and what should be done, to eliminate, reduce or contain pollution of the sea.

Ocean pollution has been defined as being the

« Introduction by man, directly or indirectly, of substances or energy into the marine environment (including estuaries) resulting in such deleterious effects as harm to living resources, hazard to human health, hindrance to marine activities including fishing, impairment of quality for use of sea water and reduction of amenities¹. »

The problem analysed here receives world-wide attention. This is mainly due to pollution of the seas by oil, in particular to recent events such as the 1967 « *Torrey Canyon* » disaster² and the Santa Barbara oil spill³, although

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¹ Comprehensive Outline of the Scope of the Long-Term and Expanded Programme of Oceanic Exploration and Research, as approved by the Intergovernmental Oceanographic Commission (I.O.C.), September 1969, Part 1, 3 (UNESCO/I.O.C., Summary Report of 6th Session, September 2-13, 1969, Doc. SC/MD/19, June 1, 1970, *Annex IV*, p. 12). Cited by BROWN, « International Law and Marine Pollution : Radioactive Waste and "Other Hazardous Substances" », *Natural Resources Bulletin*, April 1971, p. 1 (MS.; hereinafter referred to as : BROWN, « Pollution »), who also gives further definitions of ocean pollution.

² On the « *Torrey Canyon* » Case, see ANDRASSY, « Prévention de la pollution des milieux maritimes », *Exposé préliminaire, Annuaire de l'Institut de droit international* (hereinafter referred to as *Annuaire*) 1969, vol. 53, I, pp. 599-613, at pp. 599-603; BROWN, *Recent Trends in the International Law of the Sea, with Particular Reference to the Legal Régime of Submarine Areas* (MS.; hereinafter referred to as : BROWN, *Recent Trends*), pp. 347 and ff.

³ See reference in BILDER, « The Canadian Arctic Waters Pollution Prevention Act : New Stresses on the Law of the Sea », *Michigan Law Review*, vol. 69, 1970-1971, pp. 1-54, at p. 3, footnote 6.

it must be pointed out that as early as 1926, a preliminary conference of experts convened in Washington to consider international legal problems caused by oil pollution of the sea ⁴.

Oil, however, is by no means the only possible pollutant. Mention must also be made of radioactive materials as well as « other harmful agents » ⁵. The latter category comprises all sorts of organic and inorganic elements, such as solid objects, dredging spoils, sewage, chemicals (pesticides, detergents, etc.), pulp and paper wastes, gases and heat ⁶. Pollutants may thus be divided into three main categories :

- (i) oil and oily mixtures;
- (ii) radioactive materials;
- (iii) other harmful agents ⁷.

In some cases, the question of whether, and to what extent, the above agents adversely affect the marine environment still appears to be debated ⁸. Thus, further scientific research is necessary. It would, however, seem to be reasonable to suggest that pending the completion of such research, the introduction of the agents mentioned above into the marine environment should be kept to a minimum.

Pollutants can enter the sea by a variety of ways : through waterways and pipelines, from ships and other floating devices, from the airspace above the sea, and as a result of activities out carried out on the seabed and its subsoil ⁹.

The rules of international law pertaining to ocean pollution may be divided into two major categories : norms of general international law (comprising customary international law as well as « general principles of law recognised

⁴ GIDEL, *Le droit international public de la mer*, vol. I, Paris, 1932, pp. 480-484.

⁵ This expression is found in Article 25 (2) of the Geneva Convention on the High Seas, of April 29, 1958, *U.N.T.S.*, vol. 450, p. 82. BROWN, « Pollution », uses the term « other hazardous substances ».

⁶ See BROWN, « Pollution », p. 18.

⁷ SCHACHTER and SERWER, « Marine Pollution Problems and Remedies », *A.J.I.L.*, vol. 65, 1971, pp. 84-111, distinguish between pollution by oil, by chlorinated hydrocarbons, by wastes discharged from coasts, and by wastes dumped from vessels.

⁸ SCHACHTER and SERWER, *op. cit.*, p. 85 : « We lack knowledge of fundamental aspects of the physical, chemical and biological working of the oceans. ... This ignorance of the oceans and the life in them is one of the reasons why the problem of marine pollution and its effects must be treated with respect and caution. »

⁹ BROWN, « Pollution », pp. 18-19. For a valuable introduction to the scientific as well as to the legal aspects of ocean pollution, see the study by SCHACHTER and SERWER mentioned above.

by civilised nations »¹⁰) and treaty rules. Norms belonging to the former category apply in principle when rules of the latter category are lacking¹¹.

The rules of international law on ocean pollution may further be subdivided according to their subject-matter (*ratione materiae*). Thus, a distinction can be drawn between the norms which are applicable when a maritime casualty is impending or has already occurred and the rules which aim at preventing such casualties, either by prohibiting voluntary discharges into the oceans or by minimising maritime hazards by prescribing certain safety standards.

The principles of international law on ocean pollution may finally be considered separately with respect to the different segments of the sea or seabed to which they purport to apply (*ratione loci*) : internal waters, territorial sea, contiguous zone, continental shelf, and high seas.

Part II of this paper analyses the present state of international law in the field of ocean pollution. It is divided into two main headings, the first of which pertains to rules of general international law, while the second is devoted to treaty norms. Both these headings contain further subdivisions dealing with pollution prevention and with rules on maritime casualties, respectively.

II. THE PRESENT STATE OF INTERNATIONAL LAW ON OCEAN POLLUTION

A. GENERAL INTERNATIONAL LAW

1. *Introduction.*

The problem examined here is whether there are, in the absence of treaty norms, any rules of international law — customary rules or general principles of law — which deal with, or at least have some bearing upon, the pollution of the seas. In this connection, it has been asserted that under general international law, and within certain limits, States have the duty as well as the right to prevent ocean pollution¹². This assertion shall now be subjected to

¹⁰ According to a widely admitted opinion, these principles, referred to in Article 38 (1) (c) of the Statute of the International Court of Justice, are rules which are to be found in most domestic legal systems of the world and which can, *mutatis mutandis*, be adapted to international relations. See OPPENHEIM-LAUTERPACHT, *International Law*, vol. I, 8th ed., London, 1955, p. 29.

¹¹ Except if the subject-matter is governed by a norm of general international law having the character of *jus cogens*. On *jus cogens*, see MAREK, « Contribution à l'étude du *jus cogens* en droit international », *Recueil d'études en hommage à Paul Guggenheim*, Geneva, 1968, pp. 426-459, and the references indicated therein.

¹² See *Annuaire* 1969, vol. 53, II, pp. 277-286.

scrutiny, duly taking into account the provisions of the 1958 Geneva Conventions on the Law of the Sea in so far as they can be taken to reflect rules of general international law.

2. *Prevention of ocean pollution.*

a. *The right of States to prevent ocean pollution.*

There is hardly any doubt that within its internal waters, a State is empowered to prevent deliberate or accidental discharge of pollutants¹³. The same is said to be true in regard to the territorial sea. This assertion, which is based on the rule that foreign vessels passing through the territorial sea must in principle comply with the regulations issued by the coastal State, requires some qualification. It is true that non-compliance by a ship with these regulations may entail sanctions taken by the coastal State. The regulatory powers of the coastal State are not, however, unlimited; if they were, the right of innocent passage granted by general international law to ships of all nations would practically be voided of its substance. Thus, the rules enacted by the coastal State to prevent water pollution should not be abusive, *i.e.* not be framed so as to render the right of innocent passage practically meaningless¹⁴. The rules in question must therefore remain « within the strict limits of their final aim »¹⁵ and lead to no discrimination either between national and foreign ships or between ships belonging to different foreign States.

It has further been contended that in matters of pollution prevention, the coastal State's regulatory powers extend to the contiguous zone. This would at first sight appear to be debatable. If it is assumed that Article 24 of the Geneva Convention on the Territorial Sea and the Contiguous Zone accurately

¹³ In this connection, it must however be borne in mind that if the baseline from which the territorial sea is measured is a straight line and « ... has the effect of enclosing as internal waters areas which previously had been considered as part of the territorial sea or of the high seas, a right of innocent passage... shall exist in those waters ». Article 5 (2) of the Geneva Convention on the Territorial Sea and the Contiguous Zone, of April 29, 1958, *U.N.T.S.*, vol. 516, p. 205. Thus, anti-pollution measures taken in such areas must be so conceived as not to frustrate the right of innocent passage of foreign vessels. The same reservation applies to internal waters which form straits used for international navigation.

¹⁴ The limitations placed on the regulatory powers of coastal States are implicit in Article 17 of the Geneva Convention on the Territorial Sea and the Contiguous Zone, which reads as follows : « Foreign ships exercising the right of innocent passage shall comply with the laws and regulations enacted by the coastal state *in conformity with these articles and other rules of international law* and, in particular, with such laws and regulations relating to transport and navigation. » (Emphasis supplied.)

¹⁵ This formula is contained in a Resolution adopted by the Institute of International Law on September 12, 1969, on « Measures concerning accidental pollution of the seas », Part A (« Prevention of accidents »), Article V (a), *Annuaire* 1969, vol. 53, II, p. 380, at p. 381.

reflects present customary law¹⁶, it might be argued that this rule merely authorises the coastal State to exercise, within its contiguous zone,

« ... the control necessary to :

- a) Prevent infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea;
- b) Punish infringement of the above regulations committed within its territory or territorial sea ».

One could first contend that the term « sanitary regulations » was not intended to cover anti-pollution regulations. A second, weightier argument would be that the jurisdictional powers granted to coastal States by Article 24 are very limited : within the contiguous zone coastal States may only take preventive measures against infringements which are about to be committed within their territorial waters, or enforcement measures relating to offences which have already been committed in these waters. It would follow therefrom that the coastal State's regulations themselves are operative only within that State's territorial sea¹⁷. Accordingly, foreign vessels would not *e.g.* have to

¹⁶ According to GIDEL, *op. cit.*, vol. I, pp. 372, 474-480, the contiguous zone was an institution of customary international law as early as in 1934. Even if this were not true, it could be argued that since its inception in 1958, the norm contained in Article 24 has become a customary rule. That a rule originally formulated in a convention can subsequently become a customary norm has been admitted by the International Court of Justice in the *North Sea Continental Shelf Cases* (Federal Republic of Germany v. Denmark; Federal Republic of Germany v. Netherlands), judgment of February 20, 1969, *I.C.J. Reports* 1969, p. 3. Denmark and the Netherlands argued that Article 6 of the Geneva Convention on the Continental Shelf, of April 29, 1958 (*U.N.T.S.*, vol. 499, p. 311), while conventional in origin, had acquired customary status subsequently to its adoption, having been accepted by the *opinio juris* of the international community. Referring to this argument, the Court observed : « There is no doubt that this process is a perfectly possible one and does from time to time occur : it constitutes indeed one of the recognized methods by which new rules of customary international law may be formed. » *I.C.J. Reports* 1969, p. 42.

¹⁷ A contrary argument could, however, be made on the basis of Article 23 (1) of the Geneva Convention on the High Seas, relating to hot pursuit, the relevant passage of which runs as follows : « If the foreign ship is within a contiguous zone, as defined in Article 24 of the Convention on the Territorial Sea and the Contiguous Zone, the pursuit may only be undertaken if there has been a violation of the rights for the protection of which the zone was established. »

The above sentence might conceivably be taken to suggest that States possess certain regulatory powers within the contiguous zone. If this interpretation were correct, a conflict would arise between Article 24 of the Convention on the Territorial Sea and the Contiguous Zone and Article 23 (1) of the Convention on the High Seas. The former, having the character of a *lex specialis*, should then be given preference over the latter. This conclusion would be strengthened by the fact that Article 23 (1) of the Convention on the High Seas expressly refers to the « ... contiguous zone, as defined in Article 24... » of the Convention on the Territorial Sea. On the relationship between these two provisions, see also ODA, « The Concept of the Contiguous Zone », *I.C.L.Q.*, vol. 11, 1962, pp. 131-153.

However, in view of the recent developments set forth below, the problem of the relationship between the two Articles becomes largely academic.

comply with anti-pollution regulations which purport to cover the contiguous zone.

It is believed, however, that these arguments are no longer consonant with recent developments of the Law of the Sea. Article 24 (2) of the Geneva Convention on the Territorial Sea and the Contiguous Zone provides that :

« The contiguous zone may not extend beyond twelve miles from the baseline from which the breadth of the territorial sea is measured. »

It is common knowledge that States failed to reach agreement on the breadth of the territorial sea at both the 1958 and the 1960 Geneva Conferences. It is equally well known that the three-mile rule no longer reflects the *communis opinio juris* and the general practice of States. Viewed in conjunction with the text of Article 24 (2) quoted above, these facts lend substance to the contention that a new rule of customary law has emerged. Under this new rule States would be free, within a distance of twelve miles from their baselines, to establish the outer boundary of their territorial waters as they please¹⁸.

This evolution of customary international law would seem to entail far-reaching consequences in regard to the contiguous zone. Indeed, every extension, by a coastal State, of its territorial sea would bring about a corresponding diminution of the breadth of that State's contiguous zone. If the territorial sea were to be extended to twelve miles, that zone would disappear altogether. Subject to the duty to grant innocent passage to foreign vessels, the coastal State would then enjoy full territorial jurisdiction over a twelve-mile belt. *In plus stat minus* : if the coastal State is entitled to extend its full jurisdiction over a twelve-mile belt, it is difficult to see why that State should be prevented from acquiring lesser jurisdictional rights within that same area, in matters of pollution prevention for example.

In the light of contemporary State practice, it thus seems difficult to argue that anti-pollution regulations enacted by coastal States must necessarily be confined to their respective territorial seas. It is submitted, therefore, that these regulations may apply up to the twelve-mile limit, but not beyond that line¹⁹.

¹⁸ SAHOVIC in *Manual of Public International Law*, ed. by SORESENSEN, New York, 1968, p. 338. See also BOWETT, *The Law of the Sea*, Manchester, 1967, p. 13, who, after having stated that 25 States — 52 as of June 1971 — claim a twelve-mile limit, observes that « ... it is scarcely likely that any international tribunal will hold that such a claim is illegal *per se* in international law ».

¹⁹ Thus, the recent Canadian legislation which creates a pollution zone covering the « Canadian » Arctic waters up to 100 miles seawards (Canadian Arctic Waters Pollution Prevention Act of June 17, 1970, 18-19 Eliz. 2, c. 17 (Can. 1970)) appears to be at variance with existing international law. See BILDER, *op. cit.*; HENKIN, « Arctic Anti-Pollution : Does Canada Make — or Break — International Law ? », *A.J.I.L.*, vol. 65, 1971, pp. 131-136; cf. also the statement issued on April 15, 1970, by the U.S. Department of State, reprinted in *International Legal Materials*, vol. IX, 1970, pp. 605-606.

States are also empowered to issue such regulations with respect to the operation of installations and other devices located on their continental shelves for purposes of exploration and exploitation²⁰. The same holds true for their ships and other floating devices on the high seas. In the latter case, States' regulatory powers are in principle restricted to their own ships or devices²¹.

b. *The duty of States to prevent ocean pollution.*

So far the present analysis has been centered upon States' rights to take preventive measures against ocean pollution. It might also be asked whether there is « freedom of waste-disposal »²².

It is almost trivial to assert that the subjective rights of one person are limited by the rights enjoyed by other persons. The limits imposed upon such subjective rights are either embodied in specific rules of law or result from a general principle which is to be found in most if not all domestic legal systems and which prohibits the abuse of rights²³. These limitations are particularly evident in the field of real property. An owner of real estate is not at liberty to exercise his property rights indiscriminately; rules of law prevent him from interfering with the rights of others. If he fails to heed these restrictions, the other persons affected may initiate judicial proceedings or even abate the nuisance themselves²⁴.

Analogous principles have been applied to relations between States forming a part of federal unions, the territories of which were adjacent. Later on, similar

²⁰ By virtue of Article 5 (2) of the Geneva Convention on the Continental Shelf, the coastal State may « ... establish safety zones [up to a distance of 500 metres, see Article 5 (3)] around such installations and devices and... take in those zones measures necessary for their protection ».

The exercise, by the coastal State, of sovereign rights over the continental shelf for purposes of exploitation and exploration now being recognised under general international law, it is believed that this recognition also extends to the principle laid down in Article 5 (2) of the Convention.

²¹ Cf. Article 6 (1) of the Geneva Convention on the High Seas.

²² This is the expression used by BROWN, *Recent Trends*, p. 332.

²³ See the ancient Roman maxim : *sic utere tuo ut alienum non laedas*. Being found in some form in most if not all domestic legal systems, the rule proscribing the abuse of rights might thus fall under the category of « general principles of law recognised by civilised nations » (see above, footnote 10). If it has already gained general acceptance on the international level by constant State practice and if it corresponds to the *opinio juris* of States, it may even have become a customary norm. On the practice of the Permanent Court of International Justice in regard to abuse of rights, see MAREK-FURRER-MARTIN, *Répertoire des documents de la Cour de La Haye*, Series I, vol. 2 : *Les sources du droit international*, Geneva, 1967, pp. 961-980. See further OPPENHEIM-LAUTERPACHT, *op. cit.*, vol. I, pp. 346-347, and the negative view put forward by BERBER, *Rivers in International Law*, London, 1959, pp. 195-210.

²⁴ McWHINNEY, in *Annuaire* 1969, vol. 53, I, pp. 627-628.

rules were invoked to cover relations between neighbouring sovereign States, especially those pertaining to international watercourses²⁵. These successive developments culminated in the famous *Trail Smelter Arbitration* (United States v. Canada)²⁶, which involved a smelter plant located in British Columbia, near the United States border. The fumes emanating from the plant had caused harm to persons on United States territory. Commenting upon Canada's duties under general international law, the *ad hoc* Arbitral Tribunal set up by the Parties declared that :

« ... under the principles of international law, as well as of the law of the United States²⁷, 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 property or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence »²⁸.

This statement made by the Arbitral Tribunal calls for some further elaboration and comment. In the light of the general principles governing the international responsibility of States, a State would unquestionably be liable for any serious air pollution caused by the activities of its own organs²⁹. If the pollution is due to activities carried out on the territory of the State by private persons, it would seem that the State is liable only if it has failed to

²⁵ The basic work on this question is THALMANN, *Grundprinzipien des modernen zwischenstaatlichen Nachbarrechts*, Zurich, 1951. See further BASKIN, « Questions de droit international relatives à la pollution des eaux », *R.G.D.I.P.*, vol. 73, 1969, pp. 421-431, at pp. 426-427; ANDRASSY, « Le droit international de voisinage », *R.C.A.D.I.*, vol. 79, 1951, II, pp. 77-181, especially on pp. 122-125; and Article X (with comment) of the « Helsinki rules » on the Uses of the Waters of International Rivers drafted by the International Law Association, *I.L.A., Report of the Fifty-Second Conference*, Helsinki, 1966, pp. 496-501.

Even though he mentions the *Trail Smelter Arbitration* (see below), BERBER comes to the negative conclusion that : « The existence of a general principle of good neighbourship cannot be demonstrated from the arrangements to be found in municipal law systems. These were found to differ from country to country both in principle as well as in details. » *Op. cit.*, p. 223. After having examined the principles contained in municipal water laws (pp. 223-253), the same writer, however, concludes : « Underlying almost every such [domestic] system is a principle according to which the user must in some way take into consideration the use of water by other users. » *Op. cit.*, p. 254.

²⁶ *Ad hoc* Arbitral Tribunal, awards of April 16, 1938, and March 11, 1941, United Nations, *Reports of International Arbitral Awards* (hereinafter referred to as *U.N.R.I.A.A.*), vol. III, pp. 1905-1982.

²⁷ Article IV of the Special Agreement for arbitration concluded between the United States and Canada on April 15, 1935, *U.N.R.I.A.A.*, vol. III, p. 1907, at p. 1908, provided that the Tribunal « ... shall apply the law and practice followed in dealing with cognate questions in the United States of America as well as international law and practice... ».

²⁸ *U.N.R.I.A.A.*, vol. III, p. 1965.

²⁹ As a rule, States are responsible for the violations of international law performed by their organs. Kelsen, *Principles of International Law*, 2nd ed., rev. by TUCKER, New York, 1966, pp. 196-201.

exercise « due diligence » to prevent such pollution³⁰ or if, though having exercised such diligence, it has failed to impose sanctions on the persons in question³¹.

Strictly speaking, the principle set forth by the Arbitral Tribunal in the *Trail Smelter* case relates to air pollution only. It is believed, however, that, by way of analogy, its operation can be extended to certain cases of ocean pollution³². Which are these cases ?

The rule stated in the *Trail Smelter* Arbitration relates to neighbourly relations between States whose territories are adjacent. As the jurisdictional waters³³ of a State can be considered as falling under its territorial jurisdiction, it seems reasonable to assert that the rule governs cases of pollution of one State's jurisdictional waters from the jurisdictional waters of another State. It can further be argued, with some justification, that it also covers cases where the jurisdictional waters of the States involved are separated by a strip of the high seas, *i.e.* where the waters of one State are affected by pollutants which drifted or have been carried over from the waters of another State via the high seas³⁴. It would follow that a State may not use or permit the use of its jurisdictional waters to pollute the jurisdictional waters of another State. The rule in question might be stretched further so as to extend to situations where the jurisdictional waters of a State are polluted through activities carried out on the continental shelf of another State or by ships or other floating devices of such other State operating on the high seas³⁵. It is true that in this case, the pollution no

³⁰ On « due diligence » in matters of ocean pollution, see the observations by WRIGHT, TUNKIN and SCHACHTER, in *Annuaire* 1969, vol. 53, II, pp. 280-281, 282, 286.

³¹ « Under general international law the state is obliged to employ due diligence to prevent certain acts of private persons injurious to other states, and, if it is not possible to prevent them, to punish the delinquents and to force them to repair the material damage caused by the injurious act. » Kelsen, *op. cit.*, p. 200.

³² Cf. SCHACHTER and SERWER, *op. cit.*, p. 105, who also mention « the doctrine » of the *Corfu Channel Case* (merits), United Kingdom v. Albania, judgment of April 9, 1949, *I.C.J. Reports* 1949, p. 4. The « doctrine » in question seems to be the statement made by the Court to the effect that international law obliges every State « ... not to allow knowingly its territory to be used for acts contrary to the rights of other States » (*ibid.*, p. 22). This is, however, a very broad rule, the operation of which is not limited to neighbourly relations between States; nor has it been enunciated for the first time in the *Corfu Channel Case*. See for instance EAGLETON, *The Responsibility of States in International Law*, New York, 1928, p. 80.

³³ For the purposes of the present study, the term « jurisdictional waters » is intended to cover internal waters, the territorial sea, and portions of the adjacent waters up to a distance of twelve miles over which the coastal State exercises some lesser jurisdictional rights.

³⁴ This view is shared by THALMANN, *op. cit.*, pp. 30, 72-73, 152-153, who points out that the rules of international law governing neighbourly relations also cover relations affecting spaces which are proximate, but not immediately adjacent.

³⁵ THALMANN, *op. cit.*, pp. 152-153; see also HYDE, *International Law*, vol. I, 2nd rev. ed., Boston, 1945, pp. 757-758.

longer originates on the second State's territory. However, to assess the legitimacy of extending the *Trail Smelter* rule to instances where a State's jurisdictional waters are polluted from the high seas, the decisive factor seems to be that the object of the pollution remains the same : a portion of a State's territorial jurisdiction.

Some authors advocate a further extension of the rule and claim that the ban on pollution extends to pollution of the *high seas* originating from a State's jurisdictional waters, or from installations on its continental shelf, or even from its ships or other floating devices on the high seas³⁶. This somewhat extreme position would be supported by the argument that the freedoms of the seas enjoyed by States should be exercised reasonably and that excessive pollution of the high seas constitutes an unreasonable use of these freedoms. This extension of the *Trail Smelter* rule may be objected to on the ground that it stretches the analogy drawn from the *Trail Smelter* case to its breaking point, for in the situation which is being considered now the object of pollution is no longer within the territorial jurisdiction of one particular State but belongs to the community of States. Even if this argument were dismissed, the extension of the rule to pollution of the high seas would be problematic. It has been indicated that if State B's jurisdictional waters are polluted from State A's waters or from its continental shelf, or from the high seas by ships and other floating devices belonging to State A, this occurrence, by virtue of an analogous application of the principle laid down in the *Trail Smelter* case, may entail the international responsibility of State A towards State B. The latter could thus present an international claim to State A. The situation is different when the polluted area is a part of the high seas : as the latter belong to the international community, it will as a rule be impossible to identify the State which has suffered the injury³⁷. Hence, even if the existence of a rule prohibiting pollution of the high seas were to be conceded in the abstract, there would be no means of applying and enforcing it through the procedures available under general international law. Consequently, the alleged prohibition of pollution of the high seas would at best be a norm without sanction, a *lex imperfecta*. To this conclusion some would reply that, the high seas belonging to the international community, either the latter as such, or one or several of its members acting jointly, are entitled to put forward a claim against a State

³⁶ BROWN, *Recent Trends*, pp. 332-333. See also *Annuaire* 1969, vol. 53, II, p. 286, where Sir Gerald FITZMAURICE observes that there is general agreement « ... sur l'obligation, consacrée par le droit existant, pour tous les Etats de prendre des mesures afin de prévenir la pollution des espaces maritimes par des navires ou des personnes relevant de leur juridiction. Il s'agit de l'application du principe général posé par le Tribunal arbitral dans l'affaire de la fonderie du Trail. »

³⁷ Except, possibly, if it can be shown that an individual State was « ... damaged in respect of fish stocks which were normally exploited by nationals of that state ». SCHACHTER and SERWER, *op. cit.*, p. 105.

which allegedly is responsible for polluting the high seas. There would thus be a sort of *actio popularis*, a concept well-known in domestic law. No doubt a system along these lines could be set up by treaty³⁸; in the absence of such a treaty, however, there is no *actio popularis*.

c. Conclusion.

The above considerations may be summarised as follows : States are entitled to take anti-pollution measures in their own jurisdictional waters, in connection with the exploration and exploitation of their continental shelves, and in regard to their ships and other floating devices on the high seas.

States are under a duty to abstain from polluting the jurisdictional waters of other States. They must take reasonable precautions to prevent persons who are under their territorial jurisdiction as well as ships and other floating devices which are attributable to them from polluting other States' jurisdictional waters. They are finally bound to impose sanctions upon persons who have done so. Failure to discharge these obligations entails their international responsibility towards the State whose waters have been adversely affected.

3. Rules pertaining to maritime casualties or impending maritime casualties.

The preceding subdivision was mainly devoted to the prevention of ocean pollution under general international law. What remains to be discussed are the emergency measures afforded to States by general international law when a maritime casualty threatening their shores has already occurred or is impending, as was, for instance, the case of the British and French coasts when the « Torrey Canyon » ran aground on Seven Stones reef, on the high seas, between the Scilly Islands and Land's End.

To analyse this question properly, it is necessary to review briefly the means of redress made available by general international law to States which are faced with a threat to their vital rights or interests. Under general international law, States are permitted to take measures of self-preservation in such emergencies³⁹. The measures, which in themselves would be unlawful, aim at preserving the vital rights or interests of the State which takes them. Measures

³⁸ In this connection, see the discussion on Article 7 of the Mandate for South West Africa, commented in the *South West Africa Cases* (Ethiopia v. South Africa; Liberia v. South Africa), Preliminary Objections, *I.C.J. Reports* 1962, p. 319, at pp. 342-344; Second Phase, *I.C.J. Reports* 1966, p. 6, at pp. 22 and ff.

³⁹ According to BOWETT, *Self-Defence in International Law*, Manchester, 1958, pp. 10-11, measures of self-preservation — and especially of self-defence — are acts which aim strictly at preserving menaced vital rights and interests, i.e., acts performed by States in their capacity as organs of the international community and aiming at the enforcement of international law. Cf. also PARTSCH, « Selbsterhaltungsrecht », in *Wörterbuch des Völkerrechts*, vol. III, Berlin, 1962, pp. 255-260, at pp. 257-258.

of self-preservation may be subdivided into acts of self-defence and acts based on necessity⁴⁰.

Self-defence can perhaps best be described as being a reaction of one State, by means which are unlawful *per se*, against an unlawful armed attack perpetrated by another State — or other States — and threatening the first State's vital rights or interests. Under general international law, alleged acts of self-defence, unlawful in themselves, become lawful if all of the following conditions are met :

- (i) There is an unlawful armed attack creating a grave and imminent danger to vital rights or interests of the State purporting to act in self-defence;
- (ii) The danger can be removed or contained only by acts of self-defence;
- (iii) The acts of self-defence are proportionate in their importance to the rights or interests which are being threatened;
- (iv) The acts of self-defence cease as soon as the danger has been removed or as soon as it has become evident that the threat cannot be removed by such acts⁴¹.

A State may interfere with the rights of another State on the basis of necessity if its own vital interests or rights are in immediate danger as a result of a behaviour or situation which does not amount to an unlawful armed attack. Necessity may be invoked as an excuse for acts which in themselves are unlawful if all of the following conditions are fulfilled :

- (i) Vital rights or interests of the State invoking necessity are threatened by a grave and imminent danger due to a behaviour or situation which cannot be qualified as an unlawful armed attack;
- (ii) That danger can be removed or contained only by measures such as those which have been taken;
- (iii) These measures are proportionate in their importance to the rights or interests which are being threatened;
- (iv) The measures in question cease as soon as the danger has been removed

⁴⁰ The concept of self-preservation is still ill-defined, and so are the notions of self-defence and of necessity. As to the latter two concepts, frequently no distinction is made at all. See RODICK, *The Doctrine of Necessity in International Law*, New York, 1928; and OPPENHEIM-LAUTERPACHT, *op. cit.*, vol. I, pp. 298-299. Cf. also SKUBISZEWSKI, in *Manual of Public International Law*, *op. cit.*, p. 760.

⁴¹ Nothing contained in the Charter of the United Nations « ... shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations... ».

Measures of self-defence must, however, be immediately reported to the Security Council. They shall cease as soon as the Council has taken measures necessary to maintain international peace and security.

or as soon as it becomes evident that the threat cannot be removed by such acts⁴².

At first sight, the main difference between self-defence and necessity seems to lie in the presence or absence of an unlawful armed attack⁴³; the question of whether, in a given situation, a State is acting in self-defence or on the basis of necessity would thus seem to depend largely upon the significance ascribed to the term « armed attack ». This question and related issues have been the object of interminable discussions in connection with Articles 2 (4), 39 and 51 of the United Nations Charter⁴⁴ and shall not here be pursued further. It must be pointed out, however, that the differentiation between self-defence and necessity, for various reasons, is not merely academic but may have far-reaching practical consequences. One of these reasons is that, as stated above, acts of self-defence are deemed to be lawful, while acts based on necessity may be merely excusable and thus may call for some compensation to be paid to the State whose rights have been interfered with⁴⁵. Another reason may be that under Article 51 of the Charter of the United Nations, acts of self-defence are permissible despite the fact that Article 2 (4) prohibits « threat or use of force », whereas measures based on necessity seem to be excusable only if they do not imply such a threat or use of force.

Initially, the decision to act in self-defence or on the basis of necessity is, of course, taken unilaterally by the State whose vital rights or interests are threatened. It is, however, subject to subsequent review through the diplomatic and judicial channels afforded by international law⁴⁶.

To what extent and in which way are these considerations relevant in matters of maritime casualties involving a threat of pollution to the coastal State? It has been claimed that the bombing of the wreck of the « Torrey Canyon »

⁴² One might ask whether necessity may still be invoked under the Charter of the United Nations. Indeed, Article 2 (4) of the Charter enjoins member States to « ... refrain in their international relations from the threat or use of force... ». The only exception to this principle appears to relate to use of force in self-defence (Article 51). Necessity is mentioned nowhere in the Charter. It would seem to follow that under the Charter, acts based on necessity are excusable if they do not involve a « threat or use of force ».

⁴³ Cf. SKUBISZEWSKI, *op. cit.*, pp. 766-767. According to BOWETT, *op. cit.*, pp. 10, 56, 269-270, it would seem, however, that the relevant criterion is the existence or inexistence of a prior delinquency, and not of an armed attack.

⁴⁴ The terms which require definition are : « threat or use of force » (Article 2 (4)), « threat to the peace, breach of the peace, or act of aggression » (Article 39), and « armed attack » (Article 51). Of these expressions, the third — whatever be its precise connotations — is certainly the most narrow. The problems relating to the definition of the above-mentioned terms are analysed by WEBER, *Der Vietnam-Konflikt - bellum legale?* Forschungsstelle für Völkerrecht und ausländisches öffentliches Recht der Universität Hamburg, Werkheft 6, Hamburg, 1970, pp. 87 and ff.

⁴⁵ Cf. BROWN, *Recent Trends*, p. 352, and the references indicated therein.

⁴⁶ OPPENHEIM-LAUTERPACHT, *op. cit.*, vol. I, p. 299.

by the British Government in 1967 constituted an act of self-defence. In the light of the above developments, this argument is untenable. However extensively the concept of « armed attack » be defined, the error of navigation which had been made by the master of the tanker and which eventually resulted in a threat of pollution to the British coast cannot possibly be construed as an « armed attack » committed by Liberia, the tanker's flag State, against the United Kingdom. It thus appears that in most instances, measures dealing with pollution or threatened pollution of coastal waters must be based on a different justification, namely necessity⁴⁷.

As pointed out earlier, acts based on necessity are excusable only if the conditions referred to above⁴⁸ are met. If this is the case, it may not matter whether these acts are performed on the high seas or even in another State's jurisdictional waters, provided the coastline or related interests of the State which accomplishes the acts in question are threatened by a grave and imminent danger⁴⁹. This danger has to be concrete and not merely theoretical and abstract : a maritime casualty must already have occurred or be imminent. Thus, a State may not take measures against a ship, tanker or other device only on the ground that the mere existence of the latter constitutes a potential danger and thus creates an emergency situation⁵⁰.

As stated earlier, the measures resorted to must be proportionate to the threatened injury, and they shall cease as soon as their aim has been achieved or as soon as their inefficiency has become obvious. The proportionality of the acts in question to the threatened injury notably depends on :

- (i) the probability of an injury being caused in the absence of such measures;

⁴⁷ BROWN reaches the same conclusions but on different grounds. He points out that : « In the typical case of oil pollution under consideration, the State of registration will not have acted illegally and the act of the ship concerned will amount at most to negligence giving rise to prosecution under the municipal law of the flag State. » *Recent Trends*, p. 351.

Thus there would be no room for action in self-defence. Analysing the conditions under which necessity may be invoked as an excuse, and applying them to the « *Torrey Canyon* » Case, BROWN then concludes that action such as the measures taken by the British Government would appear to be excusable on the ground of necessity, in view of the great disparity between the minimal interest of the tanker's flag State in the freedom of the high seas and the considerable interest of the coastal State in the preservation of its shores (BROWN, *op. cit.*, pp. 353-354).

⁴⁸ *Supra*, pp. 58-59.

⁴⁹ See also the observation by MÜNCH, *Annuaire* 1969, vol. 53, I, p. 63, and ANDRASSY, « Etudes des mesures internationales les plus aptes à prévenir la pollution des milieux maritimes », Rapport provisoire, *ibid.*, pp. 547-581, at pp. 573-574.

⁵⁰ Speaking of the possible extension of the coastal State's jurisdiction on the basis of self-preservation, SORESENSEN made this point very clear : « ... cette extension des attributions doit être limitée à l'hypothèse d'un danger imminent et ne saurait servir de fondement à un droit de réglementation unilatérale et permanente dans des matières telles que la construction de navires étrangers. » *Annuaire* 1969, vol. 53, II, p. 266.

- (ii) the likelihood of such measures being effective;
- (iii) the extent of the injury which may be inflicted by such measures ⁵¹.

Finally it must be examined whether emergency measures in matters of pollution or threatened pollution would be in conformity with the United Nations Charter. It has been explained above that Article 2 (4) of the Charter prohibits measures which amount to a « threat or use of force ». Even without attempting to define this expression, one may assert confidently that emergency measures dealing with ocean pollution do not constitute such a threat or use of force. It could hardly be argued, for instance, that the bombing of the wreck of the « Torrey Canyon » by British airplanes implies a threat or use of force by Great Britain against Liberia, the tanker's State of registration.

In accordance with what has been said earlier ⁵², the question of whether a state of necessity exists in a given case has to be initially appreciated by the coastal State. This appreciation may, however, be subjected to later review through diplomatic or judicial channels.

Most of the principles of general international law outlined here have been incorporated into Part B (« Prevention of accidents ») of a Resolution adopted by the Institute of International Law on September 12, 1969 ⁵³.

B. TREATY LAW

1. *Prevention of ocean pollution.*

a. *The 1958 Geneva Conventions on the Law of the Sea.*

The problems raised by the pollution of the oceans did not escape the attention of the drafters of the 1958 Geneva Conventions. The Geneva Convention on the High Seas ⁵⁴ requires States to draw up regulations

« ... to prevent pollution of the seas by the discharge of oil from ships or pipelines, or resulting from the exploitation and exploration of the seabed and its subsoil... ⁵⁵ »,

or

« ... from the dumping of radioactive waste ⁵⁶ ».

⁵¹ This is the formula used by the Resolution on « Measures concerning accidental pollution of the seas » adopted by the Institute of International Law on September 12, 1969, Part B (« Measures following an accident »), Article III, *Annuaire* 1969, vol. 53, p. 380, at p. 384. The formula in question is believed to be a correct restatement of the principles of general international law in this matter.

⁵² *Supra*, p. 59.

⁵³ *Annuaire* 1969, vol. 53, II, p. 380, at pp. 382-385.

⁵⁴ For reference, see above, footnote 5.

⁵⁵ Article 24.

⁵⁶ Article 25 (1).

It is further provided that :

« All states shall cooperate with the competent international organizations in taking measures for the prevention of pollution of the seas or airspace above, resulting from any activities with radioactive materials or other harmful agents ⁵⁷. »

The above provisions should be interpreted to imply that States are obligated to prevent the pollution of other States' jurisdictional waters by oil or through the dumping of radioactive waste in their own territorial sea ⁵⁸ and by their ships, other floating devices and pipelines on the high seas, as well as through the operation of installations and other devices located on their continental shelves ⁵⁹. These provisions, though largely co-extensive with the existing rules of general international law, fall short of the latter by being limited to oil and radioactive waste. As to pollution caused by radioactive materials or « other harmful agents », the Convention provides that States « ... shall co-operate with the competent international organizations in taking measures » for preventing such pollution ⁶⁰. This provision is extremely vague; it is limited to instituting a formal duty to consult with unidentified international agencies ⁶¹.

The failure of a State to act in conformity with the above rules of the High Seas Convention, which results in the pollution of another State's jurisdictional waters, entails the former State's international responsibility. Unfortunately, compulsory judicial determination of such responsibility will be lacking in most cases, as only Denmark, Finland, Haiti, Malta, the Netherlands, Portugal,

⁵⁷ Article 25 (2).

⁵⁸ Articles 24 and 25 of the Convention refer to pollution of the « seas » in general, not to the pollution of the « high seas ». The term « high seas » covers « ... all parts of the sea that are not included in the territorial sea or in the internal waters of a State » (Article 1 of the Convention). If the scope of Articles 24 and 25 were restricted to the « high seas », the drafters of the Convention would have used this term.

⁵⁹ This flows from the wording of Article 24 which expressly refers to the « exploitation and exploration of the seabed and its subsoil ». See also Article 5 (1) - (3) and (7) of the Geneva Convention on the Continental Shelf, of April 29, 1958, *U.N.T.S.*, vol. 499, p. 311. While Article 5 (1) provides that the exploration and exploitation « ... must not result in any unjustifiable interference with navigation, fishing or the conservation of the living resources of the sea... », Article 5 (7) states that : « The coastal State is obliged to undertake, in the safety zones [established around the installations and other devices erected in conformity with Article 5 (2) and (3)], all appropriate measures for the protection of the living resources of the sea from harmful agents. » (Emphasis added.)

⁶⁰ Article 25 (2), quoted above.

⁶¹ The implications of Article 25 (2) in connection with the dumping, on August 18, 1970, of rockets loaded with nerve gas into the Atlantic Ocean by the U.S. Army are examined by BROWN, « The Ocean Dumping of Nerve Gas; a Case Study of "Operation Chase", *Natural Resources Bulletin*, April 1971 (MS.). BROWN mentions a number of agencies which could appropriately have been consulted by the U.S. Government and concludes that the latter has violated Article 25 (2). *Op cit.*, pp. 9-11.

Sweden, Switzerland and Yugoslavia have submitted to compulsory adjudication under the Protocol appended to the 1958 Geneva Conventions⁶².

As to the duty to enact regulations in view of preventing pollution of the high seas by ships and other floating devices, or from the continental shelf, it constitutes, as already pointed out⁶³, an obligation devoid of any sanction, for the hypothetical plaintiff State remains unidentified.

Attention must finally be drawn to the Geneva Convention on Fishing and Conservation of the Living Resources of the High Seas⁶⁴, which allows coastal States to adopt unilateral conservation measures in any area of the high seas adjacent to their territorial sea, if negotiations with other States whose nationals fish in that area have not led to the conclusion of an agreement within six months⁶⁵. This rule seems to go beyond the existing norms of general international law.

b. The London Convention for the Prevention of Pollution of the Sea by Oil (1954-1962-1969).

As of January 1, 1971, this Convention, originally concluded at London on May 12, 1954 and amended on April 11, 1962⁶⁶, was in force between 42 States. The text which is briefly described here is the version which results from the amendments adopted on October 21, 1969⁶⁷.

The Convention aims at prohibiting the voluntary discharge of oil and oily

⁶² Optional Protocol of Signature Concerning the Compulsory Settlement of Disputes, of April 29, 1958, *U.N.T.S.*, vol. 450, p. 169.

⁶³ *Supra*, pp. 56-57.

⁶⁴ Convention of April 29, 1958, *U.N.T.S.*, vol. 559, p. 286.

⁶⁵ Article 7. Such measures may not, in particular, discriminate in form or in fact against foreign fishermen (Article 7 (2) (c)). If these unilateral measures are not accepted by the other States concerned, the latter may submit the dispute to a special commission, the decision of which shall be binding (Articles 9-11).

The European Fisheries Convention, of March 9, 1964, *International Legal Materials*, vol. III, 1964, p. 476, establishes an exclusive fishing right and exclusive fisheries jurisdiction of the coastal State within six miles measured from the State's baseline (Article 2). Within the belt between six and twelve miles from the baseline, the right to fish shall be exercised only by the coastal State and by such other Contracting Parties, the fishing vessels of which have habitually fished there between 1953 and 1962 (Article 3). In this second belt, « ... the coastal state has the power to regulate the fisheries and to enforce such regulations, including regulations to give effect to internationally agreed measures of conservation, provided that there shall be no discrimination in form or in fact against fishing vessels of other Contracting Parties... » (Article 5).

The Convention is at present binding upon 11 States.

⁶⁶ *U.N.T.S.*, vol. 600, p. 333.

⁶⁷ This version is found in *International Legal Materials*, vol. IX, 1970, p. 1.

mixtures⁶⁸ into the oceans. A distinction must be drawn between tankers and ships other than tankers. The Convention applies to tankers above a tonnage of 150 gross tons and to ships of more than 500 gross tons⁶⁹. Discharge of oil and oily mixtures is prohibited anywhere in the sea, save if the tanker is proceeding *en route*, if it is more than 50 nautical miles from the nearest land, if the instantaneous rate of discharge is not higher than 60 litres per mile, and if the total discharge on a ballast voyage does not exceed 1/15,000 part of the total cargo-carrying capacity. Discharge from a tanker is also permissible when it consists of ballast from a tank which has been cleaned after the previous cargo-carrying voyage. Oil and oily mixtures from machinery space bilges may be discharged under the same conditions as for ships⁷⁰.

Discharge by ships other than tankers is allowed only if the ship is *en route*, if the instantaneous rate of discharge is not in excess of 60 litres per mile, if the mixture discharged contains less than 1/10,000 part of oil and if the discharge is effected « as far as practicable from land »⁷¹. Violations of these provisions shall be punishable offences under the law of the State to which the ship belongs⁷².

States Parties to the Convention are required to take all appropriate steps to provide for adequate facilities at ports and oil-loading terminals for the disposal of oil residues⁷³.

The enforcement of the Convention is facilitated by the requirement that every tanker and ship covered by the Convention shall carry an oil record book where certain operations must be recorded. This book may be inspected on board ship by the authorities of any Contracting Party while the ship or tanker is within one of its ports. Evidence of alleged contraventions to the Convention may be transmitted to the ship's State, which is alone competent to institute proceedings. That State shall promptly inform the notifying State and the Intergovernmental Maritime Consultative Organization of the action taken⁷⁴. Disputes between the Contracting States which relate to the interpretation or application of the Convention and which cannot be settled through negotiations can be referred to the International Court of Justice by either Party, unless the Parties to the dispute have agreed to submit it to arbitration⁷⁵.

⁶⁸ According to Article I (1), as amended in 1969, « oil » means crude oil, fuel oil, heavy diesel oil and lubricating oil. « Oily mixtures » are mixtures with any oil content.

⁶⁹ Article II (1) (a), as amended in 1962.

⁷⁰ Article III (b) and (c), as amended in 1969.

⁷¹ Article III (a), as amended in 1969.

⁷² Article VI (1), as amended in 1962.

⁷³ Article VIII, as amended in 1962.

⁷⁴ Articles IX and X, as amended in 1962 and 1969.

⁷⁵ Article XIII.

This Convention, although embodying substantial progress, remains limited in scope. Its operation is restricted to the Contracting Parties, and it only covers discharge of oil and oily mixtures by ships and tankers. Finally it is confined to voluntary discharges and thus fails to provide for measures to prevent maritime casualties.

On this point, attention may be called to a Resolution adopted on September 12, 1969 by the Institute of International Law⁷⁶. According to this Resolution, « ... which might inspire the conduct of States in this matter »⁷⁷, States must, individually or jointly, take appropriate measures to prevent pollution of the sea through maritime casualties⁷⁸. These measures may in particular

« ... relate to the design and equipment of the ships, to the navigation instruments, to the qualifications of the officers and members of the crew, and to other significant factors »⁷⁹. »

States which have taken such measures — even unilaterally — within the limits of their competence⁸⁰

« ... have the right to prohibit any ship that does not conform to the standards set up... from crossing their territorial seas and contiguous zones and from reaching their ports »⁸¹. »

The compatibility of these suggested rules of conduct with either general international law or the provisions of the Geneva Convention on the Territorial Sea and Contiguous Zone⁸² is debatable⁸³, but shall not be further analysed here.

c. *The Nuclear Test Ban Treaty of 1963.*

The Nuclear Test Ban Treaty of August 5, 1963⁸⁴ is another instrument

⁷⁶ « Measures concerning accidental pollution of the seas », Part A (« Prevention of accidents »), *Annuaire* 1969, vol. 53, II, p. 380.

⁷⁷ Preamble, paragraph 5.

⁷⁸ Article I.

⁷⁹ Article II (1).

⁸⁰ See Article IV.

⁸¹ Article VI.

⁸² See in particular Articles 14 (1) and (4), and 17, relating to innocent passage, and Article 24, concerning the contiguous zone.

⁸³ SORENSEN expresses doubts as to the coastal State's competence to regulate the design and equipment of foreign ships, the specifications to be met by navigation instruments, and the qualifications of the officers and the members of the crew, even in that State's own territorial sea (*Annuaire* 1969, vol. 53, II, p. 266). With respect to the contiguous zone, SORENSEN stresses that the coastal State's powers are restricted to violations of regulations committed or about to be committed in its territorial sea (*ibid.*, p. 279).

⁸⁴ Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and under Water, *U.N.T.S.*, vol. 480, p. 43. As of January 1, 1971, this Treaty was binding upon 102 States.

which is relevant in connection with ocean pollution. Article 1 of the Treaty prohibits nuclear tests and explosions in the atmosphere, in outer space, under water, or

« ... in any other environment if such explosion causes radio-active debris to be present outside the territorial limits of the State under whose jurisdiction or control such explosion is conducted. »

It follows from this text that nuclear tests or explosions carried out by a State in the subsoil of its territory or its territorial sea remain permissible as long as their effects are confined to that State's territorial limits. It would also seem to follow that nuclear tests or explosions effected for peaceful purposes in the subsoil of the high seas are unlawful even if the water or air column above is not affected : Article 1 of the Treaty bans tests causing radioactive waste to be present « outside the territorial limits of the State », and the subsoil of the high seas is located outside these limits. Subsequent developments do not, however, appear to bear out this interpretation : nuclear tests or explosions for peaceful purposes seem to be prohibited only if radioactive pollution of the water or the atmosphere ensues. Thus, the status of the subsoil of the high seas appears to be assimilated in fact to the status of national territories⁸⁵.

d. Conclusion.

The above summary of the existing network of multilateral agreements⁸⁶ bearing upon ocean pollution reveals that much remains to be done. The conventions which have been analysed are limited to certain kinds of pollutants

⁸⁵ This is the conclusion reached by BROWN, « Pollution », pp. 7-8, after a study of Article 1 of the Treaty for the Prohibition of Nuclear Weapons in Latin America, of February 14, 1967, *U.N.T.S.*, vol. 634, p. 326, which does not prohibit the peaceful use of nuclear materials, and of the Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil Thereof, « commended » by the United Nations General Assembly on December 7, 1970, A/RES/2660 (XXV). The latter Treaty, the text of which is appended to the Resolution cited above, does not cover peaceful uses of nuclear devices, as is shown by its title and by Article I (1), which refers to nuclear *weapons*. Cf. BROWN, *Arms Control in Hydrospace : Legal Aspects*, Woodrow Wilson International Center for Scholars, Oceans Series 301, Washington, 1971, pp. 61-64.

⁸⁶ To this summary, one must add certain provisions of the Bonn Agreement on the North Sea analysed below (pp. 67-68), which deal with preparatory and organizational co-operation (see BROWN, *Recent Trends*, pp. 373-374), and Articles V and VI of the Antarctic Treaty of December 1, 1959, *U.N.T.S.*, vol. 402, p. 71. These provisions prohibit any nuclear explosions and disposal of radioactive waste in the area south of 60° South Latitude, including ice shelves, subject, however, to the rights of States «... under international law with regard to the high seas within that area ». The scope of these provisions is very limited. One must further mention some agreements which are indirectly relevant to the subject-matter of this paper because they prohibit the use or emplacement of nuclear devices in certain areas and thus reduce the danger of ocean pollution. See the Treaties mentioned in footnote 85, to which the 1968 Treaty on Non-Proliferation of Nuclear Weapons (*International Legal Materials*, vol. VII, 1968, p. 811) may perhaps be added.

and to certain ways by which pollutants reach the sea. There is no agreement establishing technical standards — especially in regard to tankers and other ships — which would minimise the danger of accidental pollution. The methods of detection of ocean pollution, of adjudication and of enforcement leave much to be desired. Finally it must be remembered that the conventions described above are not anywhere near achieving universality. Consequently, the principles of general international law remain widely applicable. There is, therefore, ample room and great need for a comprehensive conventional régime on prevention of ocean pollution, although the present achievements should not be underrated.

2. *Rules pertaining to maritime casualties and impending maritime casualties.*

a. *The 1969 Brussels Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties.*

The principles of general international law pertaining to maritime casualties and impending maritime casualties have been codified in the Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, concluded at Brussels on November 29, 1969⁸⁷. In addition, the Brussels Convention provides for consultation with independent experts prior to intervention, and, except in cases of extreme urgency, for consultation with the State(s) affected by a casualty as well as for notification of the measures contemplated to any natural or juridical person which can reasonably be expected to be touched by such measures⁸⁸. Once an intervention has occurred, the State(s) and person(s) affected by it must be immediately notified thereof⁸⁹. The Convention finally prescribes compulsory conciliation and arbitration⁹⁰.

With the exception of certain provisions relating to the notification of interventions and to the pacific settlement of disputes, the Brussels Convention is hardly more than a codification of the existing rules of general international law.

b. *The 1969 Bonn Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil.*

Problems of oil pollution in the event of maritime casualties are finally dealt

⁸⁷ *A.J.I.L.*, vol. 64, 1970, p. 471. This Convention is accompanied by a Convention on Civil Liability for Oil Pollution Damage, of the same date, *ibid.*, p. 481. For a general survey of the question of liability for pollution, see GOLDIE, « International Principles of Responsibility for Pollution », *Columbia Journal of Transnational Law*, vol. 9, 1970, pp. 283-330.

⁸⁸ Article III (a) - (d).

⁸⁹ Article III (f).

⁹⁰ Article VIII and Annex to the Convention. Conciliation is not, of course, mandatory so far as the solution recommended by the Conciliation Commission is concerned.

with in a regional arrangement : the Agreement for Co-operation in Dealing with Pollution of the North Sea by Oil, concluded at Bonn by the eight North Sea States on June 9, 1969⁹¹. The Bonn Agreement divides the North Sea into eight zones, six of which are national zones, attributed to Denmark, the Federal Republic of Germany, the Netherlands, Norway, Sweden, and the United Kingdom, respectively. The remaining two sectors are under the joint responsibility of Belgium, France and the United Kingdom in one, of France and the United Kingdom in the other case⁹².

The Bonn Agreement expressly states that this zonal division may not be used as an argument in any matter concerning sovereignty or jurisdiction⁹³.

Under this regional Agreement, a Party shall inform any other Party of casualties or oil slicks observed in the North Sea which are likely to constitute a serious threat to the coast or related interests of that other Party. The zonal authority shall observe the movements of any oil slick within its zone and assess its importance; it shall further inform the other Parties to the Agreement of any casualty, of the assessment it has made thereof, and of the measures it may have taken to deal with the situation⁹⁴. The necessary remedial steps will then normally be taken by the coastal State concerned. The latter may, however, request assistance from other Contracting Parties, starting with those States which are equally affected by the casualty. The Parties thus called upon for assistance shall « ... use their best endeavours to bring such assistance as is within their power⁹⁵ ».

c. Conclusion.

The two agreements briefly described here are limited in scope and application. They are both restricted to oil pollution; in addition, the Brussels Convention only covers tankers and other ships. The Bonn Agreement is regional in character, and the Brussels Convention is not yet in force. Accordingly, the subject-matter continues to be governed to a wide extent by the rules of general international law relating to necessity. The conclusion of a universal treaty codifying these principles and covering all kinds of pollutants as well as every possible way by which these pollutants may enter the sea, coupled with provisions on compulsory peaceful settlement of disputes, would certainly appear to be highly desirable.

⁹¹ *International Legal Materials*, vol. IX, 1970, p. 359.

⁹² Article 6 and Annex to the Agreement.

⁹³ Article 6 (5).

⁹⁴ Articles 5 and 6.

⁹⁵ Article 7.

III. THE FUTURE OF INTERNATIONAL LAW IN REGARD TO OCEAN POLLUTION

The present study demonstrates that the existing legal mechanisms for fighting ocean pollution are fairly intricate. It may come as a surprise to some that there is already a substantial amount of rules — both general and conventional — and devices in this field. It must be emphasized, however, that these rules and devices exhibit serious gaps and deficiencies.

The international community is clearly aware of these inadequacies. This awareness is reflected in Resolution 2750 (XXV) adopted on December 17, 1970⁹⁶ by the General Assembly of the United Nations, where it was decided to convene a law of the sea conference in 1973⁹⁷. This conference will attempt to establish a new international régime of the seas : it will in particular study « ... the preservation of the marine environment (including *inter alia*, the prevention of pollution)...⁹⁸ ».

Resolution 2750 (XXV) follows Resolution 2749 (XXV), which contains a declaration of principles⁹⁹. Partly, the principles formulated therein are but restatements of the current rules of general international law; partly, these principles set forth the goals which States hope to attain in 1973. In essence, Resolution 2749 (XXV) declares that the seabed and ocean floor, and the subsoil thereof, beyond national jurisdiction, are the « common heritage of mankind ». As such they shall not be subject to appropriation by States or persons but be governed by an international régime and be administered by an international machinery. The régime in question should

« ... provide for the orderly and safe development and rational management of the area and its resources and for expanding opportunities in the use thereof and ensure the equitable sharing by States in the benefits therefrom, taking into particular consideration the interests and needs of the developing countries, whether land-locked or coastal...¹⁰⁰. »

The problem of ocean pollution is dealt with in operative paragraphs 11 and 13 of Resolution 2749 (XXV). Paragraph 11 states that in the area beyond national jurisdiction, which will be governed by the proposed international régime,

« ... States shall take appropriate measures for and shall co-operate in the adoption and implementation of international rules, standards and procedures for... :

(a) Prevention of pollution and contamination, and other hazards to the marine environment, including the coastline, and of interference with the ecological balance of the marine environment;

⁹⁶ United Nations Document A/8097, p. 32.

⁹⁷ The twenty-seventh General Assembly may however decide to postpone the Conference if the progress of the preparatory work of the Enlarged Committee on the Peaceful Uses of the Seabed is insufficient. See Resolution 2750 (XXV), operative paragraphs 2 and 3.

⁹⁸ Operative paragraph 2 *in fine*.

⁹⁹ United Nations Document A/8097, p. 26.

¹⁰⁰ Operative paragraph 9.

(b) Protection and conservation of the natural resources of the area and prevention of damage to the flora and fauna of the marine environment. »

The above principles provide guidelines for the future international régime of the seas. They may, at least partly, be considered as a proposal of *lex ferenda*, the precise contents of which, however, remain vague.

Paragraph 13 of Resolution 2749 (XXV) specifies that nothing contained in that Resolution shall affect

« (b) The rights of coastal States with respect to measures to prevent, mitigate or eliminate grave and imminent danger to their coastline or related interests from pollution or threat thereof resulting from, or from other hazardous occurrences caused by, any activities in the area, subject to the international regime to be established. »

The present study, which has been devoted to the current rules of international law on ocean pollution and to the 1970 Resolutions of the United Nations General Assembly, may perhaps best be concluded by casting a glance on possible future developments in the field of ocean pollution. In this connection, it must be borne in mind that any future action in this field will be complicated by the existing variety of pollutants and of ways by which these agents enter the sea, as well as by their varying and at times uncertain effects. Thus,

« No single measure or type of measure on either the national or international level is adequate to meet the range of marine pollution problems. Marine pollution control measures must be tailored carefully to fit particular problems. Moreover, the fashioning of these measures is not a task for the imagination alone. The present international system, based as it is on the interdependency of sovereign states, is the material from which solutions must be cut. This system has both considerable capacity and serious limitations for dealing with marine pollution problems¹⁰¹. »

It should further be remembered that in practice, any further developments in regard to pollution of the seas will be closely linked to the evolution of the Law of the Sea in general. Thus, they cannot be considered separately and will have to be included in the vast complex of the proposed new régime of the seas. At present, the Law of the Sea, being torn by various conflicts of interests, is in turmoil. One of these conflicts arises from the competition between the goal of maximum exploration and exploitation of the sea, seabed and subsoil, on the one hand, and that of preserving the ecological balance of the marine environment, on the other.

The present rules governing the delimitation of the continental shelf towards the high seas, providing for an open-ended outer boundary of the shelf, seem to be one of the main motives for reviewing or even discarding the whole complex of the 1958 Geneva Conventions. If the present open-ended definition of the continental shelf were to be maintained, the entire seabed and subsoil might become subject to progressive appropriation by individual States. From there, there is but a small step to dividing up the whole of the high seas. Such

¹⁰¹ SCHACHTER and SERWER, *op. cit.*, p. 86.

a course is clearly undesirable; many States now seem to admit that national rights over parts of the sea should not be unduly extended. Furthermore, States appear now to concede, reluctantly in some cases, that the high seas are the « common heritage of mankind » and that their uses should be subjected to an international régime. However, the proposals recently put forward by the United States, Great Britain and France¹⁰² show that opinions differ as to the precise contents to be given to that régime.

A minimum solution would be to improve the present substantive rules on the Law of the Sea, including those relating to ocean pollution. Improvements would include the drawing of a precise and stable outer boundary of the continental shelf and the granting of freedom of exploration and exploitation beyond that line. The present rules on ocean pollution laid down in the Geneva Conventions would in essence remain unchanged but would have to be extended

¹⁰² These proposals are reprinted in United Nations Document A/8021, pp. 130, 177, 185. They all discard the idea of an appropriation of the seabed beyond national jurisdiction by individual States and provide for the establishment of an international seabed régime and machinery, but the contents of the régimes so proposed vary to a considerable degree. The French and British proposals advocate the creation of « blocks » or « areas » beyond national jurisdiction, to be allotted temporarily to individual States or groups of States for purposes of exploration and exploitation. These States or groups of States would then be entitled to issue sub-licenses to individuals or companies.

Under the British proposal, parts of the fees paid for these sub-licenses would be handed over by individual States to the proposed international agency. The funds thus received by the agency would, after providing for the latter's administrative expenses, be distributed to the States parties to the seabed agreement, taking into account the special needs and interests of the developing countries.

According to the French proposal, administrative expenses of the planned agency would be covered by the licence fees paid by States. Part of the proceeds from the sub-licenses would be retained by the States which have issued the sub-licenses; the remainder of these proceeds would have to be contributed by them to the programmes of assistance to developing countries which they may select.

The U.S. draft subdivides the international seabed area into two zones. The area which is adjacent to coastal States' jurisdictional waters would be submitted to the latter's trusteeship. As trustees, these States would enjoy preferential rights of exploration and exploitation. Part of the royalties collected by the trustee State through sub-licensing would, however, have to be paid over to the international agency. The second zone, comprising the seabed beyond the trusteeship area, would be governed by rules similar to those proposed by the United Kingdom.

The French and British proposals are general and somewhat vague in character; the draft submitted by the U.S., on the other hand, is very detailed and has already elicited some criticism. Thus, it has been argued that the establishment of a trusteeship area would be at variance « ... with the status of the area and its resources as the common heritage of mankind » and « ... with the basic principles of trusteeship, as the concept was known in private law systems, in that the trustee and not the beneficiaries appeared to receive the bulk of the benefits... ». « Asian-African Legal Consultative Committee », Colombo Session, January 18-27, 1971, Summary Record, Doc. N° 2 (XII), Provisional, point III. (a), pp. 3, 4.

All the three proposals take into account the problem of ocean pollution; the U.S. draft does so in some detail.

so as to cover all kinds of pollutants and all the possible ways by which such pollutants can enter the sea. The advantage of such a limited programme is that it might be politically realisable in not too distant a future¹⁰³. The shortcomings of this approach are obvious : the unlimited freedom of exploration and exploitation would interfere with other uses of the sea, particularly with navigation; such freedom of exploration and exploitation would result in chaos and anarchy; in the field of ocean pollution, the absence of mechanisms of control, judicial determination and enforcement would be fatal. It seems furthermore quite evident that the minimum programme outlined above would not meet with the approval of the United Nations General Assembly, for Resolution 2749 (XXV) already goes beyond it by calling, *inter alia*, for the establishment of an « appropriate international machinery ». It is not, however, clear what precisely is meant by « international machinery ».

The « optimum world order » which might be aspired to would, of course, consist of new substantive rules internationalising the area beyond national jurisdiction. The exploitation of this international area and the control of the activities carried out by States in that area would be entrusted to an international agency. To discharge these functions adequately, this agency would have to be vested with some legislative powers and equipped with mechanisms of compulsory adjudication as well as with an international sea police force with far-reaching powers. This would amount to the institution of a universal supra-national organisation, an « international government of the seas ». There is hardly any international lawyer who will deny the desirability of such a solution, yet no student of international law and relations can be oblivious of political realities. Past experience with international organisations of the conventional type and present positions of States in regard to the future legal status of the seabed area convey little hope for converting this ambitious design into a reality.

It therefore seems that any reasonable solution would lie half-way between the minimum and maximum orders outlined above. It is impossible, within the limited scope of this paper, to articulate fully the lines along which such a compromise might be sought; the latter would probably involve a clear delimitation of jurisdictional and other attributions of States in regard to ocean space, the creation of an international agency which would administer the exploration and exploitation of the international seabed area and, last but not least, agreement on compulsory methods for the pacific settlement of disputes. As far as ocean pollution is concerned, the existing rules should be broadened so as to include every kind of pollutant and every possible way by which such a pollutant can reach the sea. States should be obligated to enact national anti-pollution laws

¹⁰³ It must be pointed out, however, that it would presumably encounter the opposition of those States which claim a territorial sea or fisheries zone of 200 miles or more, namely Argentina, Brazil, Chile, Costa Rica, Ecuador, El Salvador, Panama, Peru, and Uruguay. Guinea claims a territorial sea of 130 miles.

within their jurisdictional waters and with respect to installations on their continental shelves as well as to their ships and other floating devices on the high seas. Under the present law, infringements of these rules entail the international responsibility of the State which has failed to observe them. If such infringements threaten the coastline of a State, the latter can put forward an international claim against the offending State. However, with one possible exception¹⁰⁴, no remedy is at present available against pollution of the high seas¹⁰⁵. This situation is unsatisfactory and should be remedied. A workable solution might be to create an *actio popularis*, i.e., to allocate an international claim against the offending State either to every member of the international community or to the proposed ocean agency. In order to avoid further increases of international bureaucracy and unnecessary duplication of international organs, the settlement of claims should be entrusted to the International Court of Justice rather than, as has been suggested¹⁰⁶, to a special « pollution tribunal ».

The above considerations may be supplemented by a more philosophical observation. The unilateral extension, on September 28, 1945, of the sovereign rights of the United States over the resources of the continental shelf¹⁰⁷ disrupted a set of long-standing rules and injected an element of uncertainty into the process of international law-making generally. The international régime of the sea proposed by the United States¹⁰⁸ as well as the latter's reaction¹⁰⁹ to the 1970 Canadian Arctic Waters Pollution Prevention Act¹¹⁰ indicate that there may now be some belated regrets as to the form and substance of the policy pursued in 1945. Indeed, one may well doubt the economic advisability of tapping the resources of the seabed and its subsoil beyond national jurisdiction as long as the natural resources available on land have not been exhausted. One may even question the wisdom of exploiting those resources of the sea at a time when the international community is unable to agree on a system for controlling its activities beyond national boundaries through effective legal processes and machinery. Unfortunately, such considerations are to a large extent futile, for the past cannot be undone, and States will hardly consent to forego voluntarily the rights which they have already acquired on the continental shelf.

¹⁰⁴ Cf. *supra*, footnote 37.

¹⁰⁵ Cf. *supra*, pp. 56-57 and 63.

¹⁰⁶ This is the solution proposed by Mr. A. DANZIG in Article V of a draft document entitled : « Treaty on Ocean Pollution », Woodrow Wilson International Center for Scholars, Washington, D.C., November 20, 1970. The United States proposal described above, footnote 102, calls for the establishment of an ocean tribunal. See Articles 46 and ff. of the U.S. draft treaty.

¹⁰⁷ For convenient text, see BRIGGS, *The Law of Nations*, 2nd ed., New York, 1952, pp. 378-379.

¹⁰⁸ Cf. *supra*, footnote 102.

¹⁰⁹ See above, footnote 19.

¹¹⁰ *Ibid.*