THE BALTIC SEA AND POLLUTION

BY

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1. GENERAL BACKGROUND

Throughout the ages the seas have been used as dumps. Domestic and industrial wastes have been carried into them by rivers and driven into them by winds. In the course of the development in the industrialized countries during the last few decades, this kind of use of the seas—which from an economic point of view is of considerable importance—has become a problem. On the one hand, economic growth and affluence have substantially increased the amount of refuse. On the other hand, entirely new sources of pollution have appeared. Operational and accidental spills caused by the transportation of oil as well as offshore activities, various poisons such as DDT and PCB, radioactive substances, thermal pollutants, etc., are among the new risk factors endangering the marine environment.

It is only very slowly that measures to improve the protection of the seas have gained momentum. Fundamentally, this seems to be due to the manner in which pollution takes place. In most cases its consequences appear slowly, gradually and generally. They seldom affect the legally protected sphere of a certain person in so acute or concrete a way that, for instance, the economic losses become clearly and entirely visible. Because of this there is no realistic perception of the magnitude or seriousness of pollution, which again would be necessary for adequate corrections to be undertaken. The core of the problem is similar to what it is in environmental protection in general: in conflict situations the economic, political and legal structures of the society tend to favour those objectives that are topical, concrete and easy to evaluate in terms of money.[1]

The protection of the marine environment presents additional problems owing to the fact that international cooperation is necessary if substantial results are to be achieved.

In recent years there have been endeavours to organize such cooperation both on a world-wide level—especially by and within the organs of the United Nations (IMCO, UNEP)—and on a more limited regional basis. As a result of these efforts, a number of international conventions have been concluded. The practical significance of these has not, however, come up to expectations. The willingness to conclude the conventions has been

[1] Rehbinder, "Umweltrecht", *RabelsZ* 1976, p. 364.

clearly stronger than the readiness to adopt and enforce their regulations on a national level. The bringing into force of the conventions has been a slow process. In addition, several of them have suffered a loss of efficacy owing to the weakness of control and enforcement. In practice, the freedom of the seas has also meant a freedom to pollute the marine environment.

Regional cooperation has lately proved to bring results faster than do world-wide conventions. First, regionally based regulation has the advantage that it allows better for an adequate consideration of the particular local needs and natural conditions. Secondly, it seems that regional regulations are easier to bring into effect than world-wide conventions are. Finally, the supervision and enforcement of regulations are more efficient among neighbouring states. The regional regulation of pollution does, however, also involve certain problems. The fact that the basis of regulation is of territorially limited scope easily leads to a conflict with the maritime interests and the harmonization efforts that are characteristic of the development of the law of the sea.

The efforts of the Baltic Sea coastal states to protect the ecologically unusual and particularly vulnerable marine environment of the area are an interesting example of regional cooperation.[2] The major results of this work have been the Baltic conventions, especially the *Convention on the Protection of the Marine Environment of the Baltic Sea Area.* This convention, which was signed in Helsinki in 1974 and entered into force on May 5, 1980,[3] is usually called the Helsinki Convention. It was the first of its kind, covering as it did all sources and kinds of pollution. It has since been used as a model for other similar conventions, for instance in the Mediterranean and Persian Gulf areas and in a few other regions.[4]

In the following discussion of the regulations and principles governing pollution in the Baltic Sea area, the Helsinki Convention is of overriding importance. The regulation of this convention is, however, not exhaustive from the point of view of determining the legal situation. In order to arrive at a total picture it is necessary to examine the principles of general

[2] The Baltic Sea is one of the major brackish water basins in the world. The shallowness (55 metres on average) and slow renewal of its waters as well as the climatic conditions reduce its purification ability and make its marine environment particularly susceptible to pollution. See Baltic Sea Environment Proceedings no. 1, Helsinki 1979, pp. 2 ff., and Jansson, "Natural Systems of the Baltic Sea", *Ambio,* vol. IX, no. 3–4, 1980, pp. 128 ff.

[3] The initiator of the Helsinki Convention was the Finnish Government, which convened a diplomatic conference which met on March 18–22, 1974. The recognition of the GDR had, on the political level, been one of the contributions towards achieving positive results.

[4] For the Mediterranean area, the so-called Barcelona Convention was concluded in 1976 (Convention for the Protection of the Mediterranean Sea against Pollution). A treaty concerning the Persian Gulf was signed in 1978. Corresponding plans are under preparation in, for instance, the Caribbean Sea and Red Sea regions.

international law as well as earlier treaties governing the same subject matter.

2. FROM A PROHIBITION OF IMMISSIONS TO A PROHIBITION OF POLLUTION

The recognition of the classic principle of private law which holds that no one may use his land or property in such a way as to cause damage or harm to his neighbour has formed the prime basis even in the relations between states. This maxim has been stated in several resolutions, declarations and decisions. It may be described as a general ground for international environmental law.[5]

A mere principle, however basic, is not sufficient to protect those who suffer from immissions. Detailed regulations and arrangements for the purpose of achieving concrete results are necessary in this field, too. In recent years a concretization process of this kind has been under way. Attempts have been made, especially regarding transfrontier air pollution, to facilitate the application of the prohibition of immissions. The studies and recommendations prepared within the OECD[6] are relevant here, as is also the convention signed in a conference organized by the ECE in 1979; this, however, is primarily limited to stressing the importance of cooperation between the parties More far-reaching results have been achieved in the Nordic Environmental Protection Convention concluded between the Nordic States in 1974, which imposes a duty upon the environmental protection authorities in each state to take into account any detrimental consequences that may arise in another contracting state, especially when granting permits or licences for potentially harmful activities. The convention prohibits discrimination against foreign subjects that have suffered damage or incurred loss because of such activities. It also provides for a special negotiation procedure when large-scale projects, such as nuclear power plants, are planned in border regions.

The prohibition of immissions is also known in the field of water law and the law of the sea. Problems relating to international river basins are

[5] See Brown, "The Conventional Law of the Environment", pp. 25 ff., and Brownlie, "A Survey of International Customary Rules of International Protection", pp. 1 ff., in *International Environmental Law* (ed. by Ludwik A. Teclaff—Albert E. Utton), New York 1974. See also Goldie, "Development of an International Environmental Law—An Appraisal", pp. 129 ff., in *Law, Institutions and the Global Environment* (ed. by John Lawrence Hargrove), New York–Leyden 1972. The same starting point is emphasized by Johnson, *International Environmental Law*, Stockholm 1976, pp. 9 ff.

[6] See *Non-Discrimination in Relation to Transfrontier Pollution*. Leading OECD Document, Paris 1978.

especially common and have been dealt with in various treaties concerning such rivers. A set of guiding principles has been formulated by the ILA (International Law Association) in the so-called Helsinki Rules adopted in 1966, which emphasize an equitable use of the waterways also with regard to pollution.[7]

In the field of the law of the sea, the principles which were codified at the First Conference on the Law of the Sea in Geneva in 1958 are of particular relevance. According to art. 2 of the High Seas Convention, the freedom of the seas is to be exercised by all states with reasonable regard to the interests of other states in their exercise of the freedom of the high seas. This applies also to pollution, since serious pollution will hinder the exercise of the freedom of the seas.[8] It may thus be regarded as a formulation of the prohibition of immissions within the law of the sea.

Even though there have been some endeavours in the last few years to concretize the principles governing neighbour relations, these principles have not, generally speaking, yet developed into the kind of rules of international law that could expediently be utilized as bases for individual decisions. They are, rather, viewpoints or arguments which offer a guideline for further development in this field and provide a basis for the drafting of more precise rules.[9]

The suitability and adequacy of the principles governing neighbour relations law for the purpose of dealing with pollution can be questioned on other grounds also. A maxim stating that it is forbidden to pollute the sea if this will cause damage or harm to a neighbouring state is not necessarily very effective in curtailing pollution. Particularly where the high seas are concerned, it seems doubtful whether this rule can bring about any actual prevention. Pollution normally takes place gradually; it is a process which is difficult to explore and disclose and its effects are the joint consequence of several factors. A clear causal relationship between an act or occurrence and a certain effect can be established only in certain rare and exceptional cases, such as oil tanker accidents.

Consequently, the basic principle of general international law should be reformulated. Instead of paying regard to how acts undertaken in the

[7] See especially art. X.

[8] For instance Teclaff, "International Law and the Protection of the Oceans from Pollution" in *International Environmental Law*, New York 1974, p. 105, writes: "... under the theory that permits any uses of the oceans as long as they are exercised in a reasonable fashion for peaceful purposes, there must come a point when the detrimental effect of pollution reaches a level which condemns that use or its exercise as unreasonable". Brownlie, *loc. cit.*, pp. 1 ff., remarks, inter alia, that "... the concept of the freedom of the seas contains elements of unreasonable user and nonexhaustive enjoyment which approach standards for enviromental protection, although they are primarily based upon the concept of successful sharing rather than conservation in itself".

[9] Goldie, *loc. cit.*, p. 129.

territory of one state affect the rights of another state, it should be examined how such acts affect the marine environment and its ecological systems.[10] It may take a long time for injuries or disturbances caused in these systems to appear in some form within the territory of another state.

During the last few years, there have in fact been signs of a change of views in general international law. Some of the principles adopted in the Declaration of the United Nations Conference on the Environment in 1972 can be regarded as an indication of such a change. According to principle 7 of the Declaration, for instance, states should prevent pollution of the seas. Furthermore, the work of the present Conference on the Law of the Sea to date suggests a new kind of vision. Art. 193 of the draft convention drawn up by the conference contains a general point of departure according to which the states have a duty to conserve and protect the marine environment.[11] General declarations of principle of this type have a certain significance in themselves, especially at the present phase of emerging change and development within environmental law and the international law of the sea.

Mere principles are not, however, enough. Detailed regulations which impose duties as well as technical and economic arrangements and practical measures are also necessary. Here treaty law[12] is of fundamental importance. It has been possible in the drawing up of conventions to respond to the new developments and requirements faster and in a more flexible way than in general international law. It is true, though, that there are problems involved in the treaty-based system also, to which reference has already been made. However, the view that is sometimes expressed, according to which the conventions are merely "white pollution", is too pessimistic. It is obvious that swift results cannot be expected. When the prevention of pollution encounters considerable difficulties even on the national level, it is clear that there are multiple problems in international relations.

3. TREATY LAW RELATING TO THE BALTIC SEA AREA

The treaty law relating to pollution in the Baltic Sea can be divided into three categories. The first is formed by the general conventions on the law of the sea, in other words the principles codified in Geneva in 1958. The second group includes the other world-wide conventions and the third consists of treaty law relating specifically to the Baltic Sea.

[10] Likewise Pardo, "The Future of the Sea", p. 8 (in *The Future of the Law of the Sea*, ed. by L. J. Bouchez–L. Kaijen, The Hague 1973).
[11] UNCLOS III A/Conf. 62/WP 10, 15.7.1977.
[12] Johnson, *op. cit.*, p. 14.

(a) Questions relating to pollution are dealt with very little in the 1958 Geneva Conventions. The Convention on the High Seas does, in arts. 24 and 25, contain provisions for the purpose of preventing the emission of oil and radioactive substances into the sea. The Convention on the Continental Shelf includes a provision in art. 5 concerning the protection of the marine environment in connection with the exploration of the continental shelf, a fact which also deserves mentioning here.

But much more important than these individual provisions are the principles that are embodied in the conventions. As was suggested above, such concepts as "the freedom of the high seas" and "the right of innocent passage" are highly relevant even from the point of preventing pollution. They define the rights and duties of those who navigate in the seas as well as the jurisdiction of the coastal states.

The draft convention which has been prepared by the present Conference on the Law of the Sea includes several provisions for the purpose of preventing pollution. Thus, sec. XII of the draft deals with the general duties of states in this field as well as their cooperation, technical assistance, the monitoring of pollution, and their legislative and enforcement competence. The rules amount to a formulation of principles as well as norms of competence. From the material point of view, the proposed regulations are of a secondary nature; they are not meant to supersede the earlier conventions concerning the prevention of pollution.

Some of the central issues in the formulation of the new provisions have been, on the one hand, the question of competence to establish standards regarding pollution and, on the other, the arrangement of the competence to enforce such standards.[13] The ambitions of coastal states to protect their territories and maritime interests, i.e. the freedom of navigation and access to ports, have been in conflict with each other. The result seems to be taking the form of a compromise in which the competence of the coastal states will be somewhat extended but which at the same time ensures that standards concerning the important questions of the structure, equipment and manning of the ships will be internationally approved.

(b) The second group of treaty law relating to pollution in the Baltic Sea is composed of the world-wide conventions. Such conventions have long existed for the purpose of preventing pollution caused by oil and the deliberate dumping of refuse into the sea. The oldest of these conventions is the 1954 London Convention for the Prevention of the Pollution of the

[13] The new developments are well described by Brown, "The Prevention of Marine Pollution by Oil from Ships: Competence to Establish Standards and Competence to Enforce Standards", *Current Legal Problems* 1975, pp. 199 ff.

Sea by Oil (amended in 1962, 1969 and 1971). The regulations of this convention originally dealt with the so-called operational spills arising in the course of the normal use of ships, but later on safety regulations concerning the structure and equipment of the ships have also been adopted, in order to prevent oil pollution damage caused by maritime accidents or to reduce it to a minimum. The latter kind of regulations, called construction norms, have, however, become accepted very slowly.

At the initiative of the United Nations maritime organization, IMCO, the so-called MARPOL convention was concluded in London in 1973 to cover all pollution arising from the navigation or operation of ships. Thus, the convention relates, besides oil spills, to the emission of dangerous liquid or packaged substances, lavatory sewage water and solid refuse. This convention, which has not yet entered into force, has already been amended by a protocol adopted in 1978 dealing with the construction norms relating primarily to the prevention of oil pollution.[14]

There are three other world-wide conventions on oil pollution all of which are in force internationally. Two of them, the Brussels Civil Liability Convention of 1969 and its complement, the Fund Convention of 1971, regulate the compensation for oil pollution—primarily the liability for defraying costs, i.e. costs arising from preventive measures undertaken in order to reduce the damage. Objective liability upon the shipowner with a raised limit and compulsory insurance, supplemented by a fund collected from the oil industry, are the cornerstones of the liability system.[15]

The third convention relates to the so-called intervention problem which arose in 1967 in connection with the wrecking of the *Torrey Canyon* off Cornwall. The Intervention Convention concluded in Brussels in 1969 laid the foundation for the competence of the coastal state in acute cases of emergency. Through a supplementary protocol adopted in 1973, the field of application of these provisions was extended to cover pollution caused by substances other than oil.

As for dumping, there is a global convention concluded in London in 1972, which also covers the Baltic Sea. This convention provides—on the model of the Oslo Dumping Convention concluded a year earlier and relating to the North Sea and North-East Atlantic—for a three-stage pro-

[14] Several tanker accidents off the coasts of the United States were the main reason for amendments.

[15] A case for the application of the new system arose in the spring of 1979 because of damage caused in the Finnish and Swedish archipelagos by a Soviet tanker, *Antonio Gramsci*, which went aground off the coast of Latvia. For Sweden, the compensation was mainly derived from the international fund. Finland, where accession to the compensation system had been delayed, had to turn to the shipowner instead and managed to recover only a sum corresponding to the normal liability limit of the shipowner. Cf. Fleischer, "Liability for Oil Pollution Damage Resulting From Offshore Operations", 20 *Sc.St.L.*, pp. 105 ff. (1976).

cedure towards the attainment of its goal. The disposal into the sea of substances included in the so-called black list is totally prohibited. For substances on a so-called grey list, a special permit from an authority of a contracting state is required. Substances belonging to a third list may be disposed of by a general permit issued by the same authority.

(c) Prior to the conclusion of the Gdansk and Helsinki Conventions in 1973 and 1974, the cooperation of the Baltic Sea states in the field of environmental protection was limited. Apart from a few bilateral fishing agreements and an Agreement of 1974 between Denmark and Sweden on the Protection of the Sound (*Öresund Channel*) against Pollution, there were two Nordic treaties which partly cover the Baltic Sea area also. One of them, a treaty from 1971 on cooperation in order to combat oil pollution of the sea, is aimed at intensifying the monitoring of oil discharge and developing cooperation and mutual assistance between the contracting states as regards combating oil spills.[16] The other, the Nordic Environmental Protection Convention of 1974, is again aimed at ensuring that any transfrontier environmental harm caused in the territory of another contracting state will be taken into account by the national authorities, for instance in connection with their decisions about licences and permits, and that foreign plaintiffs are not discriminated against in matters concerning compensation claims.

The Helsinki Convention has created a special set of norms for the area covered by it—the Baltic Sea with its gulfs[17]—relating to all sources of pollution and designed to take into account the regional needs and specific circumstances. In substance, however, this special set of regulations differs less than might be expected from the legal regime relating to other marine areas. This is due to the fact that with regard to certain questions, i.e. the operational pollution caused by maritime traffic, the solutions contained in certain earlier, global conventions have been adopted in the Helsinki Convention. The purpose of this adoption has been to reconcile the regional requirements of protection and the maritime interests. For the same reason the Helsinki Convention does not contain any provisions concerning either the construction, the equipment or the manning of the ships. This solution is similar to the approach chosen by the UN Conference on the Law of the Sea.

In spite of its general nature, the Helsinki Convention is not exhaustive

[16] This treaty superseded an earlier one of similar type, which had been concluded between the Nordic countries in 1967 in Copenhagen.

[17] The "Baltic Sea Area" covered by the convention is defined as "the Baltic Sea Proper with the Gulf of Bothnia, the Gulf of Finland and the entrance to the Baltic Sea bounded by the parallel of the Skaw in the Skagerrak at 57°44'8''N".

in regulating the pollution problems in the Baltic Sea. Certain limitations follow already from its field of application. The provisions of the convention are directly binding on the contracting states only, in other words, on the Baltic Sea coastal states. Thus where the high seas are concerned, ships sailing under the flags of non-contracting states are not bound by the provisions of the convention.[18] This has practical significance mainly with respect to the operational pollution caused by ships. In relation to dumping, the coastal states have a duty to check that ships are not loaded in their territory for dumping purposes. This, together with the control possibilities available in the Straits of Denmark, provides guarantees for the prevention of this kind of pollution.

The internal waters of the coastal states are also excluded from the field of application of the convention. This has, however, to do only with a desire to emphasize the sovereignty of the contracting states; the parties commit themselves to securing that the goals of the convention are attained within these waters also.

For an appraisal of the general significance of the Helsinki Convention it is, further, necessary to observe art. 21, in which it is stated that the convention does not affect any rights or obligations arising for the contracting parties on the basis of earlier conventions. The questions associated with this complex of problems, presenting themselves especially in connection with the operational pollution caused by maritime traffic, are not so simple as might be assumed on the basis of art. 21.

In the relations between the contracting states, the Helsinki Convention undoubtedly has a superseding effect, at least in so far as the new provisions are more stringent than those contained in earlier conventions. The regulations dealing with the combating of oil pollution damage or with practical supervision, monitoring and cooperation are good examples of this.

With regard to the relations between the contracting states and third states, it would appear to be a natural starting point that a treaty cannot impose obligations upon such third states. This kind of restriction, however, has not been recognized in international environmental law. As an example there can be mentioned the Brussels Civil Liability Convention of 1969, art. VII.11 of which explicitly lays upon the contracting states a duty to extend certain arrangements—viz. the duty to obtain and maintain insurance—so as also to apply to third parties. For third parties this obligation is, of course, not based on the convention itself but on the

[18] In a resolution attached to the convention, charterers of the contracting states are, however, urged to include in the charter parties a provision requiring compliance with the Helsinki Convention.

national legislation of the contracting states; the result is, nevertheless, that the effects of the convention are extended beyond the scope of the contracting parties.[19]

Art. 21 of the present Helsinki Convention cannot be understood as preventing the application of its provisions to third parties either, as far as this is effectively possible by means of national legislation. Restrictions arise only from earlier provisions that are in force between the contracting states and contradict the provisions of the Helsinki Convention.

It is somewhat uncertain when this kind of a contradiction may be said to exist. In the first place, the question may be asked whether the lower level of prevention laid down by an earlier convention—emission or discharge limits, for instance—should be regarded as the kind of attained rights that cannot be infringed. The answer to this question is in the negative. Rights and duties must be conceived in a concrete fashion. Primarily art. 21 would seem to be aimed at securing the inviolability of the so-called "general principles of the law of the sea". It is in fact stated in the article that the convention is built upon these principles, i.e. those codified in the 1958 Geneva conventions and currently subject to reform. Although the Helsinki Convention is said to be founded on these general principles, certain conflicts between them and the goals of the convention cannot be avoided. The reason for this is that the principles have been formulated primarily with a view to the maritime interests. For instance, the concept of innocent passage is one that should be reevaluated. There has in fact been a lively exchange of views among scholars in the field of the law of the sea concerning the jurisdiction of coastal states, for instance in international sounds and straits.[20]

4. MAIN FEATURES OF SUBSTANCE IN THE LEGAL REGIME

When examining the Helsinki Convention as well as the other systems of rules concerning the prevention of pollution from the point of view of their material substance, it may be concluded that it has largely been necessary to confine them to rather general declarations of principle and of the importance of cooperation between the contracting states. For instance, the regulation of the most prominent source of contamination, that is land-based pollution, rests on a very vague basis. Thus the significance of the conventions and the success of the prevention of pollution

[19] Similar features appear in the MARPOL convention (art. 5).

[20] See Delupis, "Supertankers och internationella sund", pp. 97 ff., in *Svensk rätt i omvandling*, Stockholm 1976.

remain largely dependent upon how the future cooperation works out. The role of the Commission which has been established by the Helsinki Convention is crucial from the point of view of developing the convention and defining its content more closely. The work of the Commission—beginning on an interim basis—has been quite active.[21]

In what follows, the legal situation will be described separately for each source of pollution.

(a) *Land-based pollution.*[21a] In this connection it must first be pointed out that the provisions of the 1974 Paris Convention for the Prevention of Marine Pollution from Land-based Sources[22] do not apply to the Baltic Sea area. Instead, there are provisions concerning this subject matter in arts. 5 and 6 as well as annexes I, II and III of the Helsinki Convention. They cover every discharge of polluting substances deriving from land-based sources and carried into the sea by way of the atmosphere or water, direct from the coast or through pipelines.[23]

The disposal or conducting of hazardous substances into the sea is totally prohibited in art. 5, regardless of how or by what means it may be done. Among such hazardous substances, listed in annex I, are DDT and its derivatives as well as PCB compounds. It may be regarded as an important step of progress that the use of DDT was prohibited in all the coastal states of the Baltic Sea even before the Helsinki Convention entered into force.

As for hazardous substances, it is important to note that they are listed in an annex instead of in the convention itself. This is relevant because it is easier to amend the annexes (opting-out procedure), and thus to supplement the list, than it is to amend the convention itself.[24]

In art. 6 the contracting states commit themselves to undertake all appropriate measures to control and reduce pollution of the Baltic Sea area deriving from land-based sources to a minimum. This obligation has been specified in annexes II and III. The former contains a 16-item list of harmful substances. No significant amount of these substances may be conducted into the marine environment without a special advance permit issued by the competent national authority. Annex III gives a presentation of goals, criteria and measures that should be considered for the protection of the marine environment.

[21] A good account of the activities of the Interim Commission and its two working groups, the Scientific-Technological Working Group (STWG) and the Maritime Working Group (MWG) is given in the Baltic Sea Environment Proceedings no. 1.

[21a] The magnitude of the problem is described by Pawlak, "Land-based Inputs of Some Major Pollutants to the Baltic Sea". *Ambio*, vol. IX, no. 3–4, 1980, pp. 163 ff.

[22] This convention has the same administration as the Oslo Dumping Convention (1972).

[23] Land-based pollution is defined in art. 2, para. 2, of the convention.

[24] Art. 24.

Except for the total prohibition regarding hazardous substances, the rules and principles concerning the prevention of land-based pollution are—as was pointed out above—vague and subject to various interpretations. In this part the regulation contained in the convention has clearly been left insufficient. It must especially be regarded as a defect that the status of the discharge of harmful substances, as subject to permission, has been defined in a very vague fashion and is thus left to the discretion of each contracting state. The convention is rather emphatic in stressing that the contracting states should cooperate to draw up various programmes, guidelines, standards or regulations concerning discharges, environmental quality and products containing noxious substances and materials and their use. According to art. 6.5, the contracting parties must endeavour to establish and adopt common criteria for issuing permits for discharges. It is obvious that the activities of the Commission will play a central role in the concretization of these provisions. The possibilities of coordination are increased by the duty of the contracting states to inform the Commission of significant discharges (art. 6.4).

It may be mentioned that the Scientific-Technological Working Group (STWG) established by the Interim Commission has already examined the possibilities for improving the formulation of common criteria and guidelines for issuing permits for discharges. In particular the Group has considered (1) the question whether it would be possible to establish numerical values for water-quality criteria and (2) the possibilities of applying technical criteria and emission norms, as well as (3) the possibilities of applying combined emission and immission norms.[25]

(b) *Pollution from ships.* Prior to the entry into force of the Helsinki Convention, there were unified rules for the Baltic Sea only as regards oil pollution from ships. Apart from oil, the Helsinki Convention contains, in annex IV, regulations concerning noxious liquid substances in bulk, harmful substances in packaged form, sewage and garbage. The regulation has been formulated in close accordance with the MARPOL convention. That instrument, concluded in 1973 at the initiative of IMCO, has not yet entered into force.

The discharge of oil and oil refuse from tankers and other ships the gross capacity of which exceeds 400 registered tons is totally prohibited in the Baltic Sea area. For ships that do not fall under this provision discharge of a mixture with an oil content of less than 1/10,000 is allowed subject to certain qualifications.

[25] Baltic Sea Environment Proceedings no. 1, pp. 7 ff.

The above-mentioned stringent regulations, which in practice amount to an almost total prohibition, apply at this stage to ships registered in the Baltic Sea states in the whole Baltic Sea area and, in addition, to ships sailing under the flags of third states in the territorial waters of the coastal states. The prohibition will become generally applicable also in the high seas as soon as the MARPOL convention, in which the Baltic Sea has been designated as a special area, enters into force on the international level and becomes generally effective. At the present time, ships from third states must, while in the Baltic Sea, usually comply with the conditions of discharge prescribed by an amendment made in the 1954 London Convention in 1969, effective since 1978.

The prohibition of the discharge of oil means, on the one hand, that the ships must be equipped with sloptanks where the oil refuse can be stored until the ship arrives in port. In this respect, the convention thus lays down certain structural requirements for the ships, although otherwise questions of the construction of ships have been excluded from the scope of the convention. On the other hand, the new regulations place greater requirements on the reception facilities in the ports, the lack of which has previously been an obstacle to improving the protection against oil pollution. The Helsinki Convention imposes a duty upon the coastal states to furnish all loading and unloading terminals handling oil with facilities that are sufficient for the reception of all dirty ballast and tank-washing waters from tankers. Further, all ports must be equipped with facilities that allow the reception from all ships of other refuse and mixtures with an oil content.

As for noxious liquids carried in bulk, the regulation embodied in the Helsinki Convention is built upon a division of substances into four categories according to their harmfulness in the marine environment. Annex IV of the convention contains appropriate conditions and qualifications for the discharge of these substances as well as for the disposal of dirty ballast and tank-washing waters containing such substances. Provisions concerning control measures, loading registers and reception facilities are also included in the convention. Appendixes II and III of annex IV contain a list of noxious substances as well as guidelines and criteria for their classification.

The Helsinki Convention aims at coordinating the regulations concerning the treatment, handling and transportation of harmful substances in packaged forms. Provisions concerning the treatment of sewage and garbage relate mainly to passenger ships, especially the newer ones. Here, too, the more stringent conditions for discharge entail increased requirements for the reception facilities in the ports.

(c) *Dumping.* According to the global London Convention of 1972 (art. III 1.a),

> "Dumping" means:
> (i) any deliberate disposal at sea of wastes or other matter from vessels, platforms or other man-made structures at sea;
> (ii) any deliberate disposal at sea of vessels, aircraft, platforms or other man-made structures at sea.

The convention covers, in other words, deliberate measures for dumping purposes, as distinguished from operational discharge of pollutants arising from ships or oil drilling or in the course of other maritime activity. In practice, this distinction will probably not give rise to any major problems. Usually dumping has to do with the disposal of industrial wastes.

Already in the 1958 Geneva Convention on the High Seas there was a provision concerning the prevention of the dumping of radioactive substances (art. 25). Apart from this, it was not until the 1970s that restrictions were introduced. In February 1972 the parties to the North-East Atlantic Fishing Convention[26] concluded in Oslo a dumping convention for the North Sea and the North-East Atlantic.[27] Under this convention the disposal of certain substances at sea is totally prohibited. Other substances may be dumped by virtue of a special permit issued individually by a competent national authority. When issuing these permits, account must be taken of the environmental factors specified in the convention.

The Baltic Sea was not included in the field of application of the Oslo Convention. In the same year (1972), however, a global dumping convention which covers the Baltic Sea area was concluded in London. The London Convention is likewise built upon a division of harmful substances into different categories and upon a three-level system of total prohibition, special permit and general permit, respectively.

Not all marine areas, of course, are in the same position mutually with regard to dumping and its consequences. The natural conditions and variations in the vulnerability and level of tolerance in the different areas must certainly be taken into account in the consideration of permit applications. Art. VIII of the London Convention additionally contains a provision urging the contracting states to conclude regional conventions where the local conditions and needs may be assigned a determining role and adequate consideration.

It is obvious that dumping in the Baltic Sea area is undesirable even

[26] At that time the Soviet Union and Poland remained outside the convention.

[27] The field of application of this convention is the same as that of the Paris Convention on Land-based Pollution mentioned earlier.

within the scope allowed by a global convention. The shallowness of the Baltic Sea as well as its sensitive ecological balance call for exceptionally stringent conditions regarding the discharge of substances that are harmful to the marine environment. Consequently, the Helsinki Convention has been furnished, in art. 9, with a dumping prohibition, subject to only two exceptions. The disposal at sea of dredged spoils is allowable under a special permit issued by a national authority. The second exception relates to emergency situations: dumping is permitted if it is for the purpose of saving human life or salvaging a vessel.

The supervision of the dumping prohibition has been arranged in such a way that the contracting states have a duty to control (a) ships registered in their territory or sailing under their flag, (b) ships loading in their territory or territorial waters, (c) ships present in their territorial waters and suspected of acting for dumping purposes. The contracting states undertake to cooperate to prevent and investigate breaches.

5. CONCLUDING REMARKS

The past decade—the 1970s—has been important from the point of view of the protection of the marine environment, because the necessity of protective measures has been widely recognized. This has been due, on the one hand, to increased scientific knowledge concerning particularly the causal relationships associated with marine pollution, and, on the other, to an aggravation of pollution and its consequences. A change in attitudes can be detected. It has gradually become more and more understood that the protection of the seas is not only a question of aesthetic values or conservation of seabirds but that interests vital from the human point of view, not least economic ones, are at stake.

The legal foundations of the protection of the marine environment are undergoing a crucial period of transformation. It will largely depend upon the outcome of the present Conference on the Law of the Sea what degree of relative importance the arguments and considerations connected with the prevention of pollution receive compared with the other relevant interests.

The significance of the treaty law relating to the prevention of marine pollution will become manifest only in the course of years to come. As has been pointed out above, the results will depend upon the willingness and ability of the contracting parties to cooperate.