

REGIONAL FRAMEWORKS FOR LAND BASED SOURCES OF MARINE POLLUTION CONTROL: A LEGAL ANALYSIS ON THE NORTH EAST ATLANTIC AND THE BALTIC SEA REGIONS

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I INTRODUCTION

There are problems and interests arising in regional areas which are larger than national interests, and in which national actors can participate, but yet which are not global in scope.¹ These are typically special to a particular locality, and not amenable to effective treatment through global rule making.² In this context, the management of problems in enclosed or semi-enclosed seas, the management of regional pelagic fisheries and certain regional efforts pertaining to scientific inquiry and information gathering,³ are important. In relation to joint regional efforts to combat land-based sources of marine pollution ('LBSMP'), the term 'regional' is defined as, 'efforts by three or more states to manage the oceans and their resources'.⁴

The objective of this paper is to describe new developments and fill the gaps in literature addressing regional efforts to control LBSMP. It analyses regional approaches and comments on developments to control LBSMP. In this context the paper explores the legal and institutional developments in the North-East Atlantic region and the Baltic Sea region. All these arrangements are examined with a view to assess what progress has been made to achieve the goal of LBSMP control under the legal frameworks of these regions.

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¹ R E Stein, 'The Promotion of Regional Organizations in Managing Man's Environment' in J L Hargrove (ed), *Law, Institutions and the Global Environment* (Oceania Publication Inc, 1972) 255.

² See L D M Nelson, 'The Functions of Regionalism in the Emerging Law of the Sea as Reflected in the Informal Composite Negotiating Text' in D M Johnston (ed), *Regionalization of the Law of the Sea* (Ballinger Publishing Co, 1978) 17-30.

³ R B Bilder, 'The Consequences of Regionalization in the Treaty and Customary Law of the Sea' in D M Johnston (ed), *Regionalization of the Law of the Sea* (Ballinger Publishing Co, 1978) 32.

⁴ L M Alexander, 'Regionalism at Sea: Concept and Reality' in D M Johnston (ed), *Regionalization of the Law of the Sea* (Ballinger Publishing Co, 1978) 3. For definition of LBSMP see section III(A)(1) of this article.

Although LBSMP can be transported globally, they are most intensely felt at regional levels. Schumacher notes that, 'most land-based pollutants are not transported far from their sources of discharge'.⁵ It is due to this reason that a regional approach is advocated for LBSMP control. The *Paris Convention on the Prevention of Marine Pollution from Land-based Sources 1974*,⁶ and the *Convention on the Protection of the Marine Environment of the Baltic Sea Area 1974*⁷ are the pioneer legal instruments for regional control.

This article commences with a discussion on 'regional approach for LBSMP control'. Regional legal instruments on LBSMP control in the North East Atlantic and Baltic Sea regions are highlighted and discussed next. In this context the paper analyses the contents of these regional instruments and evaluates their implementation programs and measures on LBSMP control, to identify best practice.

II REGIONAL APPROACH FOR LBSMP CONTROL

In general, there is a natural tendency toward regionalism based on the homogeneity of interests, traditions, and values within small groups of neighbouring states.⁸ Political, economic, social and cultural integration and cooperation are more easily attained⁹ within a given region to establish mechanisms for environmental development and control. This suggests that, to facilitate environmental protection, 'environmental standards must be tailored to reflect local conditions and varying public preferences'.¹⁰

Caldwell points out:

In a world of nations, most of the actual work of environmental protection is done at the local level with the involvement or cooperation of national government. Nearly every nation has a stated policy for the environment, and by treaty or statute, some national policies extend to international commitments. And because many environmental policies transcend national boundaries but fall short of being global, governments have developed bilateral or regional arrangements to deal cooperatively with matters that they cannot effectively manage separately.¹¹

Although there are some arguments against LBSMP control at the regional level,¹² at present they have lost their retentive power. The regional approach has proven to be enormously attractive and, to a certain extent, successful for LBSMP since the late 1960s.¹³ This is because the nature and scope of land-based pollutants differ from one

⁵ M Schumacher et al, 'Land-based Sources of Marine Pollution in the Caribbean Region: Incentives and Prospects for an Effective Regional Protocol' (1996) 20 *Marine Policy* 102.

⁶ 13 ILM 1974, 352.

⁷ 13 ILM 1974, 546.

⁸ A L Benet, *International Organizations: Principles and Issues* (Prentice Hall Inc, 1977) 289.

⁹ Ibid.

¹⁰ M G Faure, *Enforcement Issues for Environmental Legislation in Developing Countries*, UNU/INTECH Working Paper No 19, March 1995, 22.

¹¹ L K Caldwell, *International Environmental Policy* (Duke University Press, 2nd ed, 1990) 129.

¹² For the details of this debate see B A Boczek, 'Global and Regional Approaches to the Protection and Preservation of the Marine Environment' (1984) 16 *Case Western Reserve Journal of International Law* 38; A Nollkaemper, 'Marine Pollution From Land-based Sources: Towards a Global Approach' (1992) 24 *Marine Pollution Bulletin* 8. The case for a global strategy is derived from the inadequacy of existing regional approaches to land-based sources.

¹³ In legal terms, the *Bonn Convention on the Prevention of Pollution of the North Sea 1969* was the start of regional efforts for marine pollution control.

region to another according to 'their special hydrographical and ecological characteristics, as well as the predominant patterns of industrial and economic development'.¹⁴

LBSMP are highly specific for different regions.¹⁵ They can cause real disasters in regions with specific geo-ecological features. Predominantly, these include, shallow, enclosed or semi enclosed seas, as they are especially sensitive and receive substantial contamination from land and the coasts.¹⁶ In this context, the Baltic Sea, the North Sea, the Mediterranean, the Gulf of Mexico, and the Gulf of Thailand are all examples. The *United Nations Joint Group of Experts of Scientific Aspects of Marine Pollution* ('GESAMP') Report 1992 stated:

In some cases the living resources have been locally contaminated to such a degree that fishing has been stopped in limited areas, sometimes leading to suspicion among consumers that fish caught elsewhere in adjacent areas may be contaminated and thus causing problems for the marketing of the fish from whole regions. In a number of 'hot spots', the ecosystem balance has been disturbed. In one area of the North Sea (the Waddensea), and the Baltic Sea, pollution has been implicated in reducing the population of some marine animals.¹⁷

Unlike vessel source pollution, LBSMP usually affects local coastal interests, and therefore the global community shares a smaller part of the environmental cost. Because of this, the trend in legal thinking is that regional approaches are suitable for LBSMP control. As all seas are connected, LBSMP also have some impacts on oceanic water.¹⁸ From this point of view, although some global standards are necessary, regulations should be concluded primarily at regional levels on this issue. Alheritiere's statement can be quoted in this context: 'Pollution from land-based sources calls for regional action; while other forms, such as pollution from dumping by ships, could be conveniently tackled at the global level'.¹⁹

III REGIONAL AGREEMENTS SURVEYED AND ANALYSED

Various regional LBSMP control agreements have been concluded in different parts of the world's oceans. They contain general provisions concerning, inter alia, the obligation to take appropriate measures to prevent marine pollution (including from land-based sources), cooperation in dealing with pollution, monitoring of pollution, environmental assessment, exchange of information, technological and financial assistance and settlement of disputes. They also provide a basis to establish financial

¹⁴ S Kuwabara, *The Legal Regime of the Protection of the Mediterranean Against Pollution From Land-based Sources* (Tycooly International Publishing Limited, 1984) 20.

¹⁵ UNEP, 'Review of Development Activities Since 1985 - Note by the Secretariat', UN Doc. UNEP/MG/Ig/1/2, para 11, 515.

¹⁶ On this problem refer to UK Department of Environment, *Quality status of the North Sea* (1987); Kuwabara, above n 14, ch 1; R B Clark (ed), *Marine Pollution* (Oxford, 1986) ch 10; M M Sibthorp (ed), *The North Sea: Challenge and Opportunity* (Europa Pubns, 1975), 22 ff; Baltic Marine Environment Protection Commission - Helsinki Commission, *First Periodic Assessment of the State of the Marine Environment of the Baltic Sea Area 1980-1985* (Helsinki, 1987).

¹⁷ GESAMP, *The Health of the Oceans, UNEP Regional Seas Report and Studies*, No 16, (UNEP, 1982) 3.

¹⁸ According to the conclusion of the GESAMP 1990, LBSMP have some impact on oceanic water.

¹⁹ D Alheritiere, 'Marine Pollution Control Regulation: Regional Approaches' (1982) 6 *Marine Policy* 162.

and administrative frameworks and to implement the broad-based regional Action Plan. They are:

- *Barcelona Convention for the Protection of the Mediterranean Sea Against Pollution*, 16 February 1976, 15 ILM 1976, 290 (entered into force 12 February 1978);²⁰
- *Kuwait Regional Convention for Cooperation on the Protection of the Marine Environment from Pollution*, 24 April 1978 (entered into force 1 July 1979), ('Kuwait Convention');²¹
- *Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of the West and Central African Region*, 23 March 1981 (entered into force 5 August 1984), ('Abidjan Convention');²²
- *Convention for the Protection of the Marine Environment and Coastal Area of the South East Pacific*, 12 November 1981 (entered into force 19 May 1986), ('Lima Convention');²³
- *Regional Convention for the Conservation of the Red Sea and Gulf of Aden Environment*, 12 February 1982 (entered into force 20 August 1985), ('Jeddah Convention');²⁴
- *Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region*, 24 March 1983 (entered into force 11 October 1986), ('Cartagena Convention');²⁵
- *Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Eastern African Region*, 21 June 1985 (entered into force 30 May 1996), ('Nairobi Convention');²⁶
- *Convention for the Protection of the Natural Resources and Environment of the South Pacific Region*, 25 November 1986 (entered into force 22 August 1990), ('Noumea Convention');²⁷ and
- *Convention on the Protection of the Black Sea Against Pollution*, 21 April 1992, 32 ILM (1993) (entered into force 15 January 1994), ('Bucharest Convention').

Some of the regional framework conventions have been elaborated by specific protocols on LBSMP. They are:

- *Protocol for the Protection of the Mediterranean Sea Against Pollution from Land-based Sources* 1980;²⁸
- *Protocol for the Protection of the South-East Pacific against Pollution from Land-based Sources* 1983, 1986;
- *Protocol for the Protection of the Marine Environment [of the Kuwait Region] against Pollution from Land-based Sources* 1990;²⁹

²⁰ P H Sand, *Marine Environment Law in the United Nations Environment Program*, (Tycooly Publishing, 1988) ix. This Convention contains a Preamble, 29 articles and an Annex on an arbitration procedure for dispute settlement. This Convention was amended in 1995.

²¹ Ibid 48.

²² Ibid 70.

²³ Ibid 86.

²⁴ Ibid 118.

²⁵ Ibid 137.

²⁶ Ibid 159.

²⁷ Ibid 196.

²⁸ 19 ILM 869.

- *Protocol on Protection of the Black Sea Marine Environment against Pollution from Land-based Sources* 1992,1994;³⁰ and
- *Protocol Concerning Pollution from Land-based Sources and Activities in the Wider Caribbean Region* 1999.³¹

However, this section looks at agreements concluded by the Eastern and Western European countries, under the subheading regional agreements in Europe.

A Regional Agreements on LBSMP Control in Europe

1 North East Atlantic Sea: The OSPAR Convention 1992

The first regional agreement on control of LBSMP was the *Paris Convention for the Prevention of the Marine Environment from Land-based Sources*, which concluded on 4 June 1974, by 14 West-European countries.³² Parties to this Convention were Austria, Belgium, Denmark, France, Germany (FRG), Iceland, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom. Finland and Italy were observers. Particularly, it covered the North Sea and parts of the North-East Atlantic and Arctic Oceans.

Article 1(2) provides a general obligation that:

The contracting parties shall take, individually and jointly, all possible steps to prevent and eliminate pollution from land-based sources in accordance with the provisions of the convention and shall harmonise their policies in this regard.

The Convention defines LBSMP as:

pollution from land-based sources means the pollution of the maritime area (i) through watercourses, (ii) from the coast, including introduction through underwater or other pipelines, (iii) from man-made structures placed under the jurisdiction of a contracting party within the limits of the area to which the present convention applies.³³

The Convention imposes specific obligations on State Parties to eliminate LBSMP by 'black list' substances listed in Part I of Annex A and to strictly limit 'grey list'

²⁹ 32 ILM (1990, 1993).

³⁰ 32 ILM 1122.

³¹ Adopted on 6 October 1999, at Aruba. Following its adoption, four Contracting Parties signed the Protocol, indicating their intent to ratify. UNEP, *The LBS Protocol in a Nutshell* (1988) UNEP – Caribbean Environment Programme Home Page <<http://www.cep.unep.org/pubs/legislation/lbsmpnut.html>> at 19 July 2004.

³² This Convention entered into force on 6 May 1979. In addition to the *Paris Convention* in the same year with a particular emphasis on the regulation of land-based pollutants discharges, Sweden and Denmark concluded a bilateral agreement (UN Legislative Series, ST/LEG/SER.B/18, at 425). In 1976 further agreements were concluded on LBSMP between France and Tunisia as well as between France, Monaco and Italy. (UNEP, *Protection of the Mediterranean Sea Against Pollution From Land-based Sources: A Survey of National Legislation. Introduction and Review*. UNEP/IG.6/5(1976) 19-20).

³³ Article 3(c) of the *Paris Convention*. This definition was amended by its 1986 amendment. The amending Protocol includes emissions via the atmosphere from land and man-made structures as defined in subparagraph (iii) of this Article.

substances listed in Part II of Annex A,³⁴ making provision for a permanent monitoring system and for the earliest possible assessment of reduction of LBSMP,³⁵ and establishing a commission (PARCOM) to supervise implementation of the Convention.³⁶ This Convention also makes provision for settlement of disagreements.³⁷ The *Paris Convention* was replaced by the *Convention for the Protection of the Marine Environment of the North East Atlantic 1992* (entered into force 24 March 1998) ('*OSPAR Convention 1992*').³⁸ The *OSPAR Convention 1992* reflects in part recommendations of the Stockholm Conference 1972, the Agenda 21 of United Nations Conference on Environment and Development 1992, and the relevant provisions of customary international law as reflected in part XII of the *United Nations Convention on the Law of the Sea*. The reasons for the replacement of the *Paris Convention* were that its predecessors, the *Oslo Convention on Dumping* and the *Paris Convention 1974*, were not adequately controlling some of the many sources of pollution. It was therefore considered justifiable to replace them with the [new *Paris*] Convention, which addresses all sources of pollution of the marine environment and the adverse effects of human activities upon it, takes into account the precautionary principle and strengthens regional cooperation.³⁹

This Convention marks a significant improvement in efforts towards LBSMP control by including more recent concepts in LBSMP control, such as the 'precautionary principle' and 'polluter pays principle'.⁴⁰

To implement these provisions, the Convention emphasises adoption of programs and measures making full use of the latest technological developments and practices.⁴¹

³⁴ To facilitate implementation measures, on the basis of persistency, toxicity or other noxious properties and tendency to bio-accumulate, pollutants have been divided into three parts. Annex A, part-I substances include, organohalogen compounds and substances which may form such compounds in the marine environment, mercury and mercury compounds, cadmium and cadmium compounds, persistent synthetic materials which may float, remain in suspension or sink, and which may seriously interfere with any legitimate uses of the sea and persistent oils and hydrocarbons of petroleum origin (Annex A, part I, 1-5).

Annex A, part II substances include compounds of phosphorous, silicon, tin and substances which may form such compounds in the marine environment, elemental phosphorous, non persistent oils and hydrocarbons of the petroleum (Annex A, part II, 1-3 of the *Paris Convention 1974*).

³⁵ Article 11.

³⁶ Articles 15 and 16.

³⁷ Article 21 of the Convention states: 'Any dispute between contracting parties relating to the interpretation or application of the present Convention, which cannot be settled otherwise by the parties concerned, for instance by means of inquiry or conciliation within the Commission, shall, at the request of any of those parties, be submitted to arbitration...' It is to be noted that in terms of settlement of disagreements, the same mechanisms have been provided in Article 32 of the *OSPAR Convention 1992*.

³⁸ 32 ILM (1993) 1072.

³⁹ Preamble of the *OSPAR Convention*.

⁴⁰ In relation to those principles Article 2 of the Convention states: The contracting parties shall apply the precautionary principle, by virtue of which preventive measures are to be taken when there are reasonable grounds for concern that substances, or energy introduced, directly or indirectly, into the marine environment may bring about hazards to human health, harm living resources and marine ecosystems, damage amenities or interfere with other legitimate uses of the sea, even when there is no conclusive evidence of a casual relationship between the inputs and the effects and shall apply the polluters pay principle, by virtue of which the costs of pollution prevention, control and reduction measures are to borne by the polluter. (Articles 2(2)(a) and 2(2)(b) respectively).

These include best available technology, best environmental practice, and clean technology⁴² and the establishment of complementary or joint programs of scientific research.⁴³ Thus it employs the principle of cleaner production.

This Convention contains a specific provision on the assessment of the quality of the marine environment taken for its protection.⁴⁴

Thus the Convention sets in place a mechanism to render the parties' implementation transparent and publicly accountable.

Other important aspects of the *OSPAR* Convention 1992 are the inclusion of provisions relating to reporting and compliance to ensure the effectiveness of the measures taken by the parties;⁴⁵ access to information for the general public;⁴⁶ the possibility of permitting non-governmental organisations to participate in subsidiary bodies;⁴⁷ and the

⁴¹ Article (2)(3)(a). It is to be noted, that in terms of technological developments, and practices, states must take into account the criteria for the definition of practices and techniques set forth in Appendix 1 of the Convention.

⁴² Article (2)(3)(b)(i). The term best available technology means the latest stage of development of processes, facilities or methods of operation, which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In relation to best available techniques, some special issues need to be considered. They include technological advantages, economic feasibility and the nature and volume of the discharges and emissions (See Article 2, appendix 1 of the Convention).

Best environmental practice means the application of the most appropriate combination of environmental control measures and strategies. With regards to best environmental practice a range of measures need to be considered, such as provision of information and education to the public, saving resources, establishing a system of licensing and application of economic instruments to activities (See Article 6, appendix 1 of the Convention).

⁴³ Article (2)(3)(b)(ii).

⁴⁴ In this respect Article 6 states: The contracting parties shall, in accordance with the provisions of the convention, in particular as provided for in Annex IV: (a) undertake and publish at regular intervals joint assessments of the quality status of the marine environment and of its development, for the maritime area or for regions or Sub-regions thereof; include in such assessments both an evaluation of the effectiveness of the measures taken and planned for the protection of the marine environment and the identification of priorities for action.

⁴⁵ Articles 22 and 23. PARCOM is allowed to take measures to assist parties in carrying out their obligations on the basis of the report on any problems, which are a barrier in implementation.

⁴⁶ Article 9. Article 9(1) states: 'the Contracting Parties shall ensure that their competent authorities are required to make available information ... to any natural or legal person, in response to any reasonable request...'

Based on Ireland's understanding of Article 9 of the *OSPAR* Convention, Ireland requested access to information redacted from reports prepared as part of the approval process for the commissioning of a Mixed Oxide Plant (the Mox Plant) in United Kingdom. UK declined to provide the information, arguing, among other things, that the information was properly withheld on commercial confidentiality grounds. (Permanent Court of Arbitration, *Press Release - OSPAR Arbitral Tribunal Issues Final Award*, 2 July 2003). The British legal team also argued that Ireland should bring its case in UK courts. After this, an arbitration was initiated by Ireland on 18 June 2001 pursuant to Article 32 - the dispute resolution provisions of the *OSPAR* Convention. On July 2 2003, the Tribunal (*OSPAR Arbitral Tribunal*) issued its Final Award.

⁴⁷ Article 11(1)(b). *OSPAR* is the first convention to not distinguish between non-party states, international governmental and non-governmental organizations in granting the right to observer status (P Sands, *Principles of International Environmental Law* (Manchester University Press, 1995) 95-96.)

competence of the Commission ('OSPARCOM') to adopt legally binding decisions.⁴⁸ These provisions are created to involve the public in marine environmental decision-making and to enhance and facilitate effective control measures.

The *OSPAR* Convention lays down some other new approaches to LBSMP control. It does not provide specific obligations with respect to specific categories of dangerous substances,⁴⁹ rather it subsumes those obligations under the general obligation of Contracting Parties to prevent and eliminate LBSMP,⁵⁰ to require the use of best available technology and best environmental practice.⁵¹

This Convention does not provide a list of black and grey list substances. With a view to addressing all potential land-based pollutants to the fullest possible extent, all potential land-based sources of pollution are subjected to the same processes of control and eventual elimination. This approach creates broader scope for the development of plans for substances which are not listed in the black and grey list, but have harmful effects to the marine environment.

Although the provisions of the *OSPAR* Convention 1992 brought new approaches to LBSMP control, they are not beyond criticism. For example, 'the broad scope to develop plans' for control of all land-based pollutants is very difficult to implement when Contracting Parties have room for dilatory manoeuvres on any debatable issues, such as through risk assessments and priority setting processes. Questions as to its effectiveness were raised by Pallemmaerts who noted:

1974 Convention has now been replaced by less explicit treaty provisions and several layers of interpretative political discourse (Ministerial Declaration, Action Plan, Objective, Strategy...) and procedures which tend to qualify the mandate and delay, rather than speed up, implementing action.⁵²

(a) *The OSPARCOM Recommendations, Decisions and Action Plans*

The OSPARCOM is the representative body of the *OSPAR* Convention's Contracting Parties. It works on the basis of the Convention and adopts strategies and mechanisms for the implementation of the Convention and protection of the North-East Atlantic Sea from pollution. As far as implementation mechanisms are concerned, Action Plans, and

⁴⁸ The OSPARCOM is the representative body of the Contracting Parties [Article 10(1)]. In terms of decisions made by the commission under the *Paris* Convention there was some disagreement among Parties as to whether the Commission decisions were legally binding or only recommendatory (H Allen, T Ijlstra and N Nollkaemper, 'The 1992 *Paris* Convention for the Protection of the Marine Environment of the North East Atlantic: A Critical Analysis' (1992) 8 *International Journal of Marine and Coastal Law* 39). However, Article 13(2) resolved this issue proving that a decision is to be legally binding after the expiry of 200 days for those Parties who have voted for it or who have not notified the Executive Secretary in writing that they are unable to accept it. (Article 13(2)). According to Article 13(1) Commission decisions do not necessarily have to be unanimous. Should unanimity not be attainable, the Commission may adopt decisions or recommendations by a three-quarters majority vote of the Contracting Parties.

⁴⁹ Under *Paris* Convention 1974 Contracting Parties had a variety of obligations, such as elimination of pollution by black list substances (Article 4(1)(a)) and periodical review of authorisations for the discharge of grey list substances (Article 4(2)(b)).

⁵⁰ Article 3.

⁵¹ *OSPAR* Convention 1992, Annex 1 Article 1(1).

⁵² M Pallemmaerts, 'The North Sea and Baltic Sea Land-based Sources Regimes: Reducing Toxics or Rehashing Rhetoric?' (1998) 13 *International Journal of Marine and Coastal Law* 452.

a substantial number of decisions and recommendations have been adopted by OSPARCOM. The OSPARCOM Working Group on Industrial Sectors was established on an ad hoc basis in 1988 and on a permanent basis in 1989, as the main forum intended for the elaboration of programs and measures to address pollution from industrial point sources in an integrated manner. Since the establishment of the Working Group on Industrial Sectors, OSPARCOM has adopted many recommendations. Examples are OSPARCOM Recommendations on the best available techniques⁵³ and best environmental practice⁵⁴ to enhance LBSMP control measures. A binding decision on the reduction and elimination of radioactive discharges, emissions and losses, especially from nuclear reprocessing, was adopted.⁵⁵ Under the strategy to combat eutrophication, the OSPARCOM has adopted guidelines for evaluating nutrient inputs to the North-East Atlantic sea, and put in hand work on comprehensive assessments of the areas where there are, or may be, eutrophication problems.⁵⁶ It also adopted and launched the Quality Status Report 2000 on the whole of the North-East Atlantic.⁵⁷

In 1992 OSPARCOM adopted an Action Plan outlining specific actions for a substantial reduction of toxic, persistent and bio-accumulative substances and mandated the OSPARCOM to determine the specific priorities for control of substances and take action to control the inputs of such substances.⁵⁸ The 1996-97 Action Plan was for the development of:

a strategy ... for the further reduction of discharges, emissions and losses of hazardous substances in order to implement the Commissions' objective in this respect⁵⁹ and consequently protect the regional marine environment from LBSMP.

Although OSPARCOM decisions are binding⁶⁰ its recommendations are not.⁶¹ OSPARCOM recommendations became binding on those Contracting Parties who voted for them since March 1998 when the *OSPAR* Convention entered into force and made a significant contribution towards the prevention and elimination of LBSMP in the North Sea Region. The Action Plans adopted by the Commission do not have a binding force, but they do create political commitment for the implementation of the *OSPAR* Convention, and eventually, the eradication of LBSMP in the region.

(b) OSPAR Ministerial Declarations

The OSPAR Ministerial Declarations are the outcome of the ministerial meetings of the OSPAR 1992 Parties. The OSPAR Ministerial Declarations 1992 and 1998 are particularly important as they laid down a number of priorities and objectives. In their 1992 Esbjerg Declaration, the Ministers agreed that:

⁵³ (94/2).

⁵⁴ OSPAR Doc 16/13/1-E, June 1994, Annexes 6 and 7.

⁵⁵ (94/3); OSPAR Commission, *Press Notice - Further Protection for the North East Atlantic* (2000) <http://www.ospar.org/eng/html/final_OSPAR_2000pressrelease.htm> at 30 August 2004.

⁵⁶ *Ibid.*

⁵⁷ *Ibid.*

⁵⁸ Action Plan of the Oslo and Paris Commissions, 1992 in Paris Ministerial Meeting Proceedings, 123.

⁵⁹ Summary Record of the 18th Joint Meeting of the Oslo and Paris Commissions, OSPAR Doc, 96/17/1-E, June 1996, para A.1.

⁶⁰ Above n 49.

⁶¹ See Article 13(5) of the *OSPAR* 1992 Convention.

As a matter of principle, for the whole convention area, discharges and emissions of substances which are toxic, persistent and liable to bioaccumulation, in particular organohalogen substances, and which could reach the marine environment should, regardless of their anthropogenic source, be reduced, by the year 2000, to levels that are not harmful to man or nature with the aim of their elimination.⁶²

Progress regarding goals set out in the 1992 Paris Declaration was not satisfactory. To improve the situation another ministerial meeting was held in Sintra on 22-23 July 1998. This declaration adopted further measures for the phasing out of marine pollution by hazardous substances within one generation (by the year 2020). By introducing a system for prioritisation and risk assessment, it adopted new strategies on specific LBSMP problems including hazardous substances and eutrophication.⁶³ Facing the fact that pollution from LBS remained an extremely serious problem in the North Sea Area, and that much more work needed to be done, at the Sintra Meeting Ministers took a more firm stand than that of the 1992 Paris Declaration. They expanded the scope of the OSPAR regime of LBSMP control,⁶⁴ recognising that harm from unintentional releases is significant and must be controlled.⁶⁵

The Sintra declaration also adopted an Action Plan⁶⁶ for 1998-2003 to implement strategies. To make this plan effective, the agreement allowed the Commission to assess reports from Contracting Parties on the implementation of programs and measures and to assess the effectiveness of these programs and measures. To carry out this program the agreement also included the aim to establish a compliance mechanism, along with a revised standard of implementation reporting and a performance assessment procedure.⁶⁷ This is significant with regard to improving the LBSMP control measures in the region. These declarations are the commitments at political levels of the Contracting Parties to control LBSMP, although they are not binding upon them.

Complementary to *OSPAR Convention 1992*, different bodies in the North Sea and the North East Atlantic regions have undertaken LBSMP control measures. These initiatives have significantly contributed to LBSMP control in the North Sea region. In this respect, the International North Sea Conferences and European Economic Community (EEC) Directives are notable.

⁶² Final Declaration of the Ministerial Meeting of the OSLO and Paris Commission, Paris 22 September 1992, part III, 4th indent.

⁶³ In this context, the Sintra Statement proposed, firstly, to identify the sources and their pathways; secondly, with a combination of monitoring, modelling, risk characterisation and assessment techniques, to establish the extent of the problem posed by these sources; and thirdly, to identify relevant measures to reduce discharges, emissions and losses of the substances concerned. (L de La Fayette, 'The OSPAR Convention Comes into Force: Continuity and Progress' (1999) 14 *The International Journal of Marine and Coastal Law* 287).

⁶⁴ Sintra Declaration, para 17.

⁶⁵ As defined in Annex 5 to the Strategy, 'losses' are the unintentional transfer of substances directly or indirectly to the marine environment by leaching from a product, waste or structure; by leaching or run-off from land; and through a leak from a container. de La Fayette, above n 63, 285.

⁶⁶ The Action Plan sets out a basis for action, activities and means of implantation, including specific tasks for the relevant working groups, and this Action Plan also includes undertakings with respect to effecting regular reviews and assessments of the quality status of the marine environment and of parties' implementation of measures adopted under the convention. (Ibid 295).

⁶⁷ 'Summary Record', Meeting of the OSPAR Commission, Sintra, 20-24 July 1998 (Ref. No 1998-1999), A Officials Segment, para A4.7 and Annex 7.

2 North East Atlantic Sea: International North Sea Conferences

A series of International Conferences on the Protection of the North Sea ('INSCs') have been held through the participation of Ministers responsible for the protection of the North Sea and the EEC Commissioner responsible for environmental protection.⁶⁸ These conference activities are linked with the OSPAR system. The declarations of these Conferences are complementary to OSPARCOM recommendations and are significant in achieving the purpose of the *OSPAR* Convention.

The first INSC was held in Bremen in 1984, the second in London in 1987; the third INSC in the Hague in 1990; an Intermediate Ministerial Meeting (IMM) was held in Denmark in 1993;⁶⁹ the fourth INSC was in Esbjerg in 1995; another IMM was held in Norway in 1997; and the fifth INSC was held in Bergen in 2002. The next Conference is expected to be held in Sweden by 2006.

The 1984 Bremen Declaration, inter alia, laid groundwork for the adoption of binding regulations for black and grey list substances by the EEC, Paris Commission, and Rhine and Elbe Joint River Commissions⁷⁰ and for the intensification of the phasing out of the use and discharge of PCBs.⁷¹ The 1987 London Declaration adopted comprehensive protective measures to improve the marine environment and thereby accepted the 'principle of precautionary action'.⁷² The 1990 Hague declaration called for:

measures to phase out and destroy in an environmentally safe manner all identifiable PCBs as soon as possible with the aim of complete destruction ... by 1995 and by the end of 1999 at the latest.⁷³

In line with the 1987 Brundtland Report,⁷⁴ the Hague Declaration put emphasis on sustainable development and an integrated ecosystem approach and adopted more specific measures to reduce inputs into the North Sea via rivers, estuaries and the atmosphere.⁷⁵

An IMM was held in Denmark in December 1993, preparatory to the Esbjerg Conference in 1995. The objective was to promote the reduction of nutrient and pesticide input into the North Sea. This meeting concluded with a commendation of the of Quality Status Report 1993 prepared by the North Sea Task Force, in which the OSPARCOM participated.⁷⁶ Apart from the Hague Declaration List of Pesticides, this meeting invited the OSPARCOM to identify other pesticides, 'which are not covered by

⁶⁸ All INSCs publish their declarations. For full text of three declarations see D Freestone and T Ijlstra (eds), *The North Sea: Basic Legal Documents on Regional Environmental Cooperation* (Kluwer Academic Publishers, 1991) 61.

⁶⁹ This was not a complete INSC but a part of the process of INSC with a limited agenda.

⁷⁰ Section 1 of Bremen Declaration, which is related to LBSMP. For the text see Freestone and Ijlstra, above n 68, 61.

⁷¹ Ibid 62. See also PARCOM Decision 90/4 of 14 June 1990 on phasing out of PCBs: *ibid* 155.

⁷² For detailed text see sections Preamble, 7, 11, 15(2), 16 and 16(1) of London Declaration 1987. See also Freestone and Ijlstra, above n 68, 41-47.

⁷³ Hague Declaration, para 9(1)(i).

⁷⁴ World Commission on Environment and Development, *Our Common Future* (OUP, 1987) (the 'Brundtland Report').

⁷⁵ See Freestone and Ijlstra, above n 68, 5-10.

⁷⁶ Statement of Conclusions from the Intermediate Ministerial Meeting, Copenhagen, 8 December 1993 (hereinafter Copenhagen Statement), para 45.

the Hague Declaration but which pose a threat to the marine environment'.⁷⁷ The next INSC was held in Esbjerg on 8-9 June 1995⁷⁸ with a new long-term objective to stop rather than reduce marine pollution:

by continuously reducing discharges, emissions and losses of hazardous substances thereby moving towards the target of their cessation within one generation (25 years) with the ultimate aim of concentrations in the environment near background values for naturally occurring substances and close to zero concentrations for man made synthetic substances.⁷⁹

To fulfil this long-term goal, the Esbjerg Declaration agreed to promote best available technology, best environmental practice, and clean technology in a more sophisticated and stringent way.⁸⁰ The Declaration's significant advance lies in the call for a cessation of discharges rather than their reduction and in its references to the need for priority setting in toxic reduction measures.⁸¹

At the IMM held in Oslo, Norway in 1997, the concept 'Ecosystem Approach' was discussed as part of the integration of fisheries and environmental policies.⁸² At its meeting a workshop was held where present conservation and management measures for the protection of the North Sea Ecosystem received specific attention. The promotion of integrated monitoring and assessments and sustainable utilisation of marine resources were advocated in this workshop for further development of this approach in the management and protection of the North Sea.⁸³

The fifth North Sea Conference took place in Bergen, Norway on 20-21 March 2002. This Conference covered a wide range of issues such as ecosystem approach to management, sustainable fisheries, hazardous substances and eutrophication. In terms of ecosystem approach this Conference emphasises the coherent, integrated and sustainable management and includes the use of ecological quality objectives as a tool for setting clear operational environmental objectives and as indicators for ecosystem health.⁸⁴ It was stressed that increased efforts are necessary in order to meet the target of the cessation of emissions, discharges and losses of hazardous substances to the North Sea by 2020 (one generation target set out in Esbjerg Declaration 1995) and also to

⁷⁷ Copenhagen statement, para 47(i).

⁷⁸ Ministerial Declaration of the Fourth International Conference on the Protection of the North Sea, Esbjerg, (hereinafter Esbjerg Declaration) 1995, para 20. This conference characterised previous conferences as having dealt with all substances which are toxic, persistent and liable to bioaccumulation, but the concrete decisions on measures have only dealt with limited number of such substances (Esbjerg Declaration, para 19).

⁷⁹ Esbjerg Declaration, para 17. For the first time the Esbjerg Declaration called for the cessation of emissions, no matter what the form, into the marine environment, whereas the London and Hague Declarations talked about reductions of inputs of hazardous substances.

⁸⁰ Esbjerg Declaration, paras 23-29 and Annex I, specify a number of issues that are required to be taken into account by the member states for the action.

⁸¹ Esbjerg Declaration, paras 18, 23(ii)(b) and 25(iii). For example in terms of emission reduction, assessment of risk is a tool in setting priorities and developing action program (para 18).

⁸² International Conference on the Protection of the North Sea, Workshop on the Ecosystem Approach to the Management and Protection of the North Sea. Ministry of Environment, *Fifth International Conference on the Protection of the North Sea* (1998) Information from the Ministry of the Environment <<http://odin.dep.no/md/html/conf/workshop/1998>> at 19 July 2004.

⁸³ Ibid.

⁸⁴ *Fifth International Conference on the Protection of the North Sea*, above n 82.

achieve the target of the OSPAR strategy to combat eutrophication by 2010, and urged for strengthened cooperation of the North Sea States.⁸⁵

It is to be noted that these INSC declarations are not binding upon states in international law. However, they create a commitment at political levels to protect the regional marine environment from pollution.

3 North East Atlantic Sea: EEC Directives

North Sea Watershed covers Belgium, France, Norway, Denmark, Germany, Luxembourg, Netherlands, Sweden, Switzerland and United Kingdom. These states take part in INSCs. From the countries surrounding the North Sea catchment area, eight States (Belgium, France, Denmark, Germany, Luxembourg, Netherlands, Sweden and United Kingdom) are members of the EEC.⁸⁶ Only Norway is not a member of the EEC. And, with the exceptions of Austria, Italy and Greece, all member states of EEC fall under the North-East Atlantic Sea.

A number of EEC directives have been adopted, which contain environment protection measures relevant to LBSMP. These directives apply to all industrial installations and substances that may be harmful for the environment.⁸⁷ Although 'directives' are not treaties, they legally bind the members of the European Economic Community.⁸⁸ Directives with direct effects require the EEC member states to perform certain acts⁸⁹ and prescribe some values, which are precise, unconditional and not dependent on any further action by the member states. When a directive has a high degree of precision there is no room for discretion for Member States. This means that the directive has direct domestic effect and achieves the same result, or the equivalent effect as a 'regulation'.⁹⁰

⁸⁵ Ibid.

⁸⁶ EEC member states are: Austria, Belgium, Denmark, Finland, Germany, Greece, France, Ireland, Italy, Luxembourg, Portugal, Spain, Sweden, the Netherlands and United Kingdom.

⁸⁷ In addition, there are some Directives, which are not directly related to LBSMP but to pollution of fresh water. However, they are useful towards the LBMP control. For example, the Directive of 22 November 1973 [(73/404/EEC, OJEC, No L 347, December 17, 1973), amended by Directives 82/242/EEC of March 31, 1982, OJEC, No L 109, April 22, 1982 and 86/94/EEC of March 25, 1986] limits the use of non-biodegradable detergents and sets a requirement of 90 per cent biodegradability. The directive of 30 October 1979 prescribes some standards for the designated waters that apply to coastal and salt waters protection. (See 79/923/EEC, OJEC, No L 281, November 10, 1979). (See also L Kramer, 'The Implementation of Community Environmental Directives within Member States: Some Implication of Direct Effect Doctrine' (1991) 3 *Journal of Environmental Law* 42-43).

⁸⁸ K Joutsamo, *The Role of Preliminary Rulings in the European Communities* (Suomalainen Tiedeakatemia, 1979) 30-32.

⁸⁹ For example Article 15 of Directive 76/464/EEC obliged member states to draw up and carry out rehabilitation programs.

⁹⁰ Article 189, para 3 of EEC Treaty states: 'Unlike community regulations, which are directly applicable, a Directive is binding on the member state to which it is addressed with respect to the objective to be achieved but leaves the national authorities free to choose how and in what form to implement it'. Examining the basic principles of direct effect doctrine and the provisions of EEC environmental Directives, Kramer argued that the above directives have direct effect. (For details see Kramer, above n 87, 39.) See also A Long, 'Integrated Pollution Prevention and Control: The Implementation of Directive 96/61/EEC' (1999) 8 *European Environmental Law Review* 180.

The 'Directive on Pollution Caused by Certain Dangerous Substances Discharged into the Aquatic Environment of the Community' adopted by the EC Council in 1976⁹¹ is explicitly applicable to the territorial sea of the Member States. The text of this directive contains a system of discharge prohibition and authorisation for a list of harmful substances. The directive mainly focuses on land-based pollution as it excludes from its scope 'discharge of dredging', 'operational discharges from ships in territorial waters', and dumping from ships in territorial waters'.⁹²

In line with the above directive (directive 76/464) other directives were adopted on cadmium (Cd) discharges,⁹³ mercury (Hg) discharges⁹⁴ and on batteries and accumulators containing certain dangerous substances.⁹⁵ These directives laid down limit values and quality objectives for cadmium, mercury and lead discharges into the marine environment.⁹⁶

4 Summary

The *OSPAR* Convention prescribes international management principles for LBSMP control and has contributed to advance the LBSMP control measures as well as gradual development of the legal regimes of LBSMP control.⁹⁷ The inclusion of these

⁹¹ Directive 76/464/EEC, OJ No L, 129, 18 May 1976, 23. In 1997 this directive was amended by the 97/16/EC Directive of 10 April 1997 on restrictions on the marketing and use of certain dangerous substances and preparations. OJ No L 116, 6.5.1997, 31. For a summary of Directive 75/442/EEC and subsequent directives see ACOPS Yearbook, 1990, 136-139. For details see N Haigh, *EEC Environmental Policy and Britain* (Environmental Data Services Ltd, 2nd ed, 1987) chs 5 & 6.

⁹² Article 1(1) and 1(2)(d).

⁹³ Directive 83/513/EEC.

⁹⁴ Directive 84/156/EEC. For text see Document 385D 0613. 85/613/EEC: Council Decision of 20 December 1985 Concerning the Adoption on Behalf of the Community, of Programs and Measures Relating to Mercury and Cadmium Discharges Under the Convention for the Prevention of Marine Pollution from Land-based Sources.

⁹⁵ Directive 91/157/EEC, OJ No L78, 26.3.91, 38.

⁹⁶ For example, since 1 January 1989 a limit value of 0.2 mg of cadmium per litre of waste discharged has been in force for plants manufacturing cadmium compounds. A maximum of 0.5 g of cadmium may be discharged per kilogram of cadmium handled. These limits have been applicable since the beginning of 1989 in the community, even where a member state has not taken corresponding implementing measures. (See Kramer, above n 87, 42-43).

⁹⁷ Social changes, scientific discoveries and technological innovations since the 1960s have led to the emergence of international principles for sustainable development relevant to the management of LBSMP. These principles include integrated coastal zone management (ICZM), environmental impact assessment (EIA), precautionary, polluter pays and cleaner production. They advocate strategies and programs for the sustainable management of natural resources. For example, EIA is an important tool to ensure proper environmental development activities and an evaluation of environmental effects (EIA, *UNEP Regional Seas Reports and Studies No. 130*, UNEP, 1990, at 1). Briefly stated, the precautionary principle ensures that a substance or activity posing a threat to the environment is prevented from adversely affecting the environment, even if there is no scientific proof linking that particular substance or activity to environmental damage. (J Cameron, 'The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment' (1991) 14 *Boston College International and Comparative Law Review* 2). As a tool of minimising international competitive distortions arising from LBSMP, the polluter pays principle advocates that the costs of environmental pollution should be internalised. In the international context, it is an attempt to shift the burden of pollution prevention and clean up costs to states or other groups or bodies involved in polluting activities, rather than permitting that burden to continue to be imposed on international society as a whole. As a management tool, the cleaner production principle offers an effective solution for tackling LBSMP problems by

management principles in the Convention has created positive opportunities for the protection of the marine environment from LBSMP in a sustainable way as they are suitable for rational management and thus useful for the minimisation of marine and coastal pollution.

As an important step in the implementation of the Convention, OSPARCOM adopted legally binding decisions. Various recommendations, Action Plans and ministerial declarations have been adopted as to the mechanisms of the Convention's implementation. INSCs and EEC directives also have been complemented with this implementation process. All these indicate the signs of commitment at political levels for the protection of the North Sea and North-East Atlantic Sea from LBSMP.

The ambitious goals adopted in the OSPAR, INSC and EEC systems were aimed at substantial behavioural change at the domestic and regional level⁹⁸ to control LBSMP in the North and North East Atlantic Sea region. With the adoption of these mechanisms and policies by the states, commitments have been developed and greater compliance has been achieved in the North Sea region.⁹⁹ Dumping has stopped and the discharge of major pollutants has been cut roughly in half in only a decade.

This following table indicates that control efforts are progressing to achieve the eventual elimination of LBSMP in some North Sea countries.

Table 1: Level Of Ambitions, Level Of Performance, And Influence Of International Communities On National Goals In Relevant Terms¹⁰⁰

	Norway			Netherlands			United Kingdom		
	A	P	I	A	P	I	A	P	I
Commitment									
Dumping	High	High	Low/Med	High	High	High	Med/Low	High	High
Nutrients	High	Med	High/Med	High	Low/Med	High	–	–	–
Hazardous substances	High	High	Med	High	Med	High	Med/High	Med	High

Notes: A = Ambitions; P = Performance; I = Relative Influence

All these recommendations, plans and directives have been playing a key role to solve the problem of coastal degradation from LBSMP. They have created sufficient institutional frameworks to combat LBSMP in the region. As a positive step to

providing the opportunity to conserve and clean up coastal waters, and ensuring environmentally sustainable use of resources by firms and industries in marine and coastal areas (efficient resource utilisation). It also provides an effective solution for protecting the marine and coastal environment from the negative impacts of human activities (reducing waste disposal charges). In this way, few, or, at least fewer, harmful substances would be introduced into the coastal waters. Because of their usefulness, international management principles have been accepted by the international community and incorporated in different international instruments. ICZM can, consequently, be described as a continuous and dynamic process by which decisions are made for the sustainable use, development, and protection of coastal and marine areas and resources (B Cicin-Sain and R W Knecht, *Integrated Coastal and Ocean Management : Concepts and Practice* (Island Press, 1998) 39).

⁹⁸ J B Skjaereth, 'The Making and Implementation of North Sea Commitments: The Politics of Environmental Participation' in D G Victor et al (eds), *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (International Institute for Applied Systems Analysis, 1998) 368.

⁹⁹ According to the Progress Report of the 4th International Conference on the Protection of the North Sea, Esbjerg, Denmark, 8-9 June 1995, the overall emissions of regulated substances have decreased substantially in most of the North Sea region.

¹⁰⁰ Skjaereth, above n 98, 364.

implement the objectives of the *OSPAR* Convention these complementary measures have provided greater opportunities to study the problems of LBSMP and to extend and strengthen administrative, scientific, political and financial capacities in the region.

However, ‘progress of implementation’ in all aspects has been slow because of economic infeasibility and social and political implications. Implementation of all of these plans and declarations requires further development of cooperative programs and measures including a supreme effort and significant capital expenditure for the preparation and review of marine environmental practices.

B *Baltic Sea: Helsinki Convention (1972 and 1992)*

The *Convention on the Protection of the Marine Environment of the Baltic Sea Area* (‘*Helsinki* Convention 1974’), concluded on 22 March 1974¹⁰¹ was the first regional international agreement to institute comprehensive measures to control all sources of regional marine pollution.

In this Convention, the Contracting Parties agreed to ‘take all appropriate legislative, administrative or other relevant measures in order to prevent and abate pollution and to protect and enhance the marine environment of the Baltic Sea Area’.¹⁰² In relation to LBSMP:

The contracting parties shall take all appropriate measures to control and minimise land-based pollution of the marine environment of the Baltic Sea Area;¹⁰³ and

...

[t]o this end they shall, *inter alia*, as appropriate co-operate in the development and adoption of specific programs, guidelines, standards or regulations concerning discharges, environmental quality, and products containing such substances and materials and their use.¹⁰⁴

This Convention also imposes specific obligations on the Contracting Parties to counter-act the introduction of hazardous substances.¹⁰⁵ It emphasises technological cooperation between Contracting States¹⁰⁶ and establishes a commission (HELCOM) to administer and coordinate the cooperative tasks of State Parties. As a permanent body, HELCOM is composed of all Contracting Parties of the Convention. HELCOM’s

¹⁰¹ Rapid fouling of the Baltic waters led to initial contacts between riparian states in 1969 and 1970 after which the Finnish Government expressed, in 1971, its willingness to act as the host for a Conference on the protection of the Baltic environment. As later elaborated, the idea was welcomed by the other riparians and preparations for the establishment of a regional convention were commenced in May 1973. Preparatory work was carried out in a notably efficient manner culminating in the adoption of the Convention at the Diplomatic Conference on the Protection of the Marine Environment of the Baltic Sea Area held in Helsinki in March 1974 which was concluded between Denmark, the Federal Republic of Germany, Finland, the German Democratic Republic, Poland, the Soviet Union and Sweden. This Convention entered into force on 3 May 1980. (for the text see 13 ILM 1974, 546; UN Legislative Series, ST/LEG/SER.B/18, 518)].

¹⁰² Article 3(1) of *Helsinki* Convention 1974.

¹⁰³ Article 6(1).

¹⁰⁴ Article 6(2).

¹⁰⁵ Article 5.

¹⁰⁶ Article 16.

duties are, inter alia, to monitor the implementation of the Convention,¹⁰⁷ make recommendations on related matters, and to define criteria and objectives for the control and reduction of LBSMP.¹⁰⁸ This Convention also provides provisions regarding responsibility for damage¹⁰⁹ and settlement of disputes.¹¹⁰

Although these provisions are significant, a significant omission in terms of LBSMP control was that the Convention did not include internal waters of the Contracting Parties.¹¹¹ It is to be noted that Article 4(3) of the Convention obliged the Contracting Parties not to pollute their internal waters. It states:

While the provisions of the present Convention do not apply to internal waters, which are under the sovereignty of each contracting party, the contracting parties undertake, without prejudice to their sovereign rights, to ensure that the purposes of the present convention will be obtained in these waters.¹¹²

This deficiency of the Convention does not create a legal obligation of States to control LBSMP in their internal waters. As B A Boczek indicates:

estuarine waters, through which much, if not most, of land-based pollution enters the sea, are not covered by the convention and their protection will depend entirely upon the readiness to the act of the Baltic governments.¹¹³

Although the *Helsinki* Convention 1974 made provisions with regard to all forms of marine pollution, it failed to significantly stop the deterioration of the Baltic Sea environment, especially problems caused by eutrophication which is one of the major sources of LBSMP, and pollution from shipping. Therefore, following a meeting of the

¹⁰⁷ Article 12.

¹⁰⁸ In general, the duties of the HELCOM are (a) keep the implementation of the Convention under regular observation, (b) make recommendations on measures relating to the purposes of the convention, (c) keep under review the content of the convention including its Annexes and to recommend such amendments as may be required, (d) define pollution criteria, objectives for pollution reduction and objectives concerning measures for preventing land-based pollution, (e) promote additional measures to protect the Baltic, and for this purpose, serve as a centre for the exchange of scientific, technological and statistical information and to promote scientific and technological research, (f) seek, when appropriate, the services of complete regional and other international organizations, and (g) assume such other functions as may be appropriate under the terms of the convention. (Article 13).

¹⁰⁹ Article 17 states: 'The contracting parties undertake jointly to develop and accept rules concerning responsibility for damage resulting from acts or omissions in contravention of the convention, including, inter alia, limits of responsibility, criteria and procedures for the determination of liability and available remedies'. Article 25 of the *Helsinki* Convention 1992 is same as this Article.

¹¹⁰ Article 18 states: '1. In case of a dispute between Contracting Parties as to the interpretation or application of the present convention, they should seek a solution by negotiation. If the Parties concerned cannot reach agreement they should seek the good offices of or jointly request the mediation by a third party, a qualified international organization or a qualified person. 2. If the Parties concerned have not been able to resolve their dispute through negotiation or have been unable to agree on measures as described above, such disputes shall be, upon common agreement, submitted to an ad hoc arbitration tribunal, to a permanent arbitration, or to the International Court of Justice.' It is to be noted that Article 26 of the *Helsinki* Convention 1992 provides the same mechanism in this respect.

¹¹¹ Article 1, *Helsinki* Convention 1974.

¹¹² Article 4(3).

¹¹³ B A Boczek, 'International Protection of the Baltic Sea Environment Against Pollution: A Study in Marine Regionalism' (1978) 4 *American Journal of International Law* 802.

heads of states in Sweden in November 1990, the *Helsinki Convention 1974* was extensively revised and replaced by the *Convention on the Protection of the Marine Environment of the Baltic Sea Area* ('*Helsinki Convention 1992*'), which was adopted on 9 April 1992 and came into force on 17 January 2000.¹¹⁴ The intention of the revision was to extend, strengthen and modernise the 1974 Convention.¹¹⁵ The *Helsinki Convention 1992* introduces more legally binding technical provisions, more specific rules and further action in the field of prevention and control of LBSMP.¹¹⁶

In relation to control of LBSMP, this Convention explicitly includes internal waters.¹¹⁷ It also includes a broader definition of LBSMP that specifically encompasses internal waters pollution.¹¹⁸

This inclusion is important as it creates the scope necessary to take measures in the whole of the catchment area.¹¹⁹ Furthermore, the 1992 Convention includes some international management principles for LBSMP control. They are the precautionary principle;¹²⁰ the polluter pays principle;¹²¹ and environmental impact assessment.¹²²

To implement these provisions, the Convention obliges States to undertake various measures and programs such as best environmental practice and best available technology.¹²³ It establishes criteria and measures concerning the prevention of pollution from LBS.¹²⁴ It also requires permits in terms of discharging harmful substances.¹²⁵

¹¹⁴ United Nations General Assembly, Advance Unedited Text, Fifty-sixth session, Oceans and the Law of the Sea, 28 March 2001, para 392.

¹¹⁵ See also P Sands, *Principles of International Environmental Law* (Manchester University Press, 1995) Vol 1, 306-307.

¹¹⁶ M Fitzmaurice, *International Legal Problems of the Environmental Protection of the Baltic Sea* (Martinus Nijhoff/Graham and Trotman, 1992) 94.

¹¹⁷ It includes the internal waters, ie, for the purpose of this convention, waters of the landward side of the base lines from which the breadth of the territorial sea is measured, up to the landward limit according to the designation of the Contracting Parties. (Article 1 of the *Helsinki Convention 1992*).

¹¹⁸ Article 2(2) of the *Helsinki Convention 1992* states: Pollution from land-based sources means pollution of the sea by point or diffuse inputs from all sources on land reaching the sea, waterborne, airborne or directly from the coast. It includes pollution from any deliberate disposal under the seabed with access from land by tunnel, pipeline or other means.

Article 2(2) of the 1974 *Helsinki Convention* defines land-based pollution as 'pollution of the sea caused by discharges from land reaching the sea waterborne, airborne or directly from the coast, including outfalls from a pipeline'.

¹¹⁹ P Ehlers, 'The *Helsinki Convention 1992: Improving the Baltic Sea Environment*' (1993) 8 *International Journal of Marine and Coastal Law* 195.

¹²⁰ Article 3(2) of the *Helsinki Convention 1992*.

¹²¹ Article (3)(4).

¹²² Article 7.

¹²³ Article 6. It is to be noted that Annex II contains criteria on best environmental practice and best available technology in its four regulations. Regulation 2 defines the best environmental practice, and regulation 3 defines the best available technology.

¹²⁴ Article 6. Annex III contains criteria and measures that must be applied by the Contracting Parties to prevent marine pollution. For example, regulation 2 describes the specific requirements for the treatment of land-based sources and regulation 3 describes the principles for issuing permits for industrial plants.

¹²⁵ Article 6(3). Detailed requirements for issuing permit are discussed in regulation 3, Annex III.

The 1992 Convention also makes provisions on notification and consultation,¹²⁶ reporting and exchange of information¹²⁷ and circulation of information to the public¹²⁸ on marine pollution issues. All these provisions entail specific legal obligations for the protection of the Baltic Sea from LBSMP.

(c) *Recommendations, Action Plans and Declarations*

Ongoing efforts to control LBSMP in the Baltic Sea region are pursued through HELCOM recommendations, action programs, and Ministerial Declarations.

HELCOM makes recommendations to reduce pollution from land based sources.¹²⁹ The most important among these are: Recommendation 7/4 concerning measures for the reduction of waste discharges from urban areas by the preliminary treatment of waste from industrial plants; Recommendation 9/8 concerning measures for the reduction of industrial pollution; Recommendation 11/5 concerning restrictions on discharges from the iron and steel industry; Recommendation 12/4 concerning the principles of industrial release into municipal sewage systems;¹³⁰ Recommendation 21/3 concerning sustainable and environmentally friendly tourism in the coastal zones of the Baltic Sea Area; and Recommendation 23/10 concerning reduction of discharges and emissions from production and formulation of pesticides.¹³¹ These recommendations are non-binding. They are useful to serve the purpose of the *Helsinki* Convention 1992 in relation to LBSMP control. Apart from these recommendations, various Ministerial Declarations have been adopted to protect the Baltic Sea from LBSMP.

The 1988 Declaration called for a 'substantive reduction of the load of pollutants' and set forth a quantitative target (50 per cent of total land-based sources discharges) and timetable (as soon as possible but not later than 1995).¹³² The commitments made to reduce LBSMP in the 1988 Declaration were affirmed in the 1990 Declaration.¹³³ The Ministerial Declaration of 1988 and the Baltic Sea Declaration of 1990, Baltic Sea Environmental Declaration of 1992 and Declaration on Resource Mobilisation for the Baltic Sea (Gdansk Declaration) of 1993 are also relevant. They promoted learning about marine pollution problems, best practice and opportunities for developing stringent environmental standards. Following these declarations in 1993, HELCOM adopted the Baltic Sea Joint Comprehensive Environmental Action Program and set up a special Task Force 1993-2012, the Program Implementation Task Force to carry out

¹²⁶ Article 13.

¹²⁷ Article 16.

¹²⁸ Article 17.

¹²⁹ Since 1980 out of 160 recommendations, 63 recommendations are for LBSMP (For details see P M Hass, 'Protecting the Baltic and North Seas' in P M Hass et al, *Institutions for the Earth: Sources of Effective International Environmental Protection* (The MIT Press, 1993) 151.

¹³⁰ See P Sroczynski and A Tyszecki, *List of Recommendations in the Helsinki Convention and the Protection of the Baltic Sea Area* (Gdansk, 1996).

¹³¹ List of valid HELCOM Recommendations (2004) HELCOM

<<http://www.helcom.fi/recommendations/reclist.html>> at 19 July 2004.

¹³² Declaration on the protection of the Marine environment of the Baltic Sea Area, Helsinki 1988, reprinted in Inter-governmental Activities in the Framework of the *Helsinki* Convention 1974-1994, Baltic Sea Environmental Proceedings, No 56, 1st operative para and Baltic Sea Declaration which was attended by Heads of Governments and High Political Representatives of the Baltic Sea States, laid down more ambitious targets.

¹³³ Baltic Sea Declaration 1990, para 1, Reprinted in (1990) 1 *Yearbook of International Environmental Law*, 424.

the program and to improve the status of the Baltic Sea environment.¹³⁴ These recommendations and declarations are non-binding in international law. However, they are useful to intensify LBSMP control measures in the Baltic region. For example, following these recommendations and declarations, a series of pollution load compilation ('PLC') exercises were conducted. These included monitoring and evaluation of the pollution load entering the Baltic Sea from land-based sources,¹³⁵ and generation of information on land-based sources.¹³⁶ Other initiatives included identification of 'hot spots' in the region (mainly municipalities and industrial sites) and a Global Environment Facility ('GEF') proposal for a Baltic Sea Regional Project which addresses reduction of non point source pollution from agriculture.¹³⁷

These recommendations, plans and declarations are important steps in the implementation of the *Helsinki* Convention 1992. Adoption of these measures are the positive indications towards the protection of the coastal environment from pollution. They are also the signs of willingness from political levels for the protection of the Baltic Sea from LBSMP. As a process of implementation, these measures are contributing to the development of behavioural change and compliance culture in the Baltic Sea region.

From the prescriptive point of view, the *Helsinki* Convention made substantial progress over the *Helsinki* Convention 1974. Like *OSPAR* Convention the *Helsinki* Convention 1992 includes some of the international management principles. Providing criteria and measures for LBSMP control, this regime has become dynamic and more effective for LBSMP control. Openness has increased,¹³⁸ together with a willingness to admit LBSMP problems and to cooperate to control or eliminate them. However from the enforcement point of view this Convention's mechanism is still lacking. Uncertainties, non-compliance or inadequacies exist in implementation in several areas.¹³⁹ Its

¹³⁴ The action program is expected to spend 18 billion euros over the 20 year period from 1993-2012 under six headings. They are: policies, law and regulations; institutional strengthening and human resource development; investment activities targeting emissions at both point sources and non point sources, management programs for coastal lagoons and wetlands; applied research; and public awareness and environmental education. In addition to the Contracting Parties, this program involves Belarus, the Czech Republic, Norway, Slovakia, Ukraine, the European Bank for Reconstruction and Development, the European Investment Bank, the Nordic Investment Bank, the World Bank, the Nordic Environment Finance Corporation and the International Baltic Sea Fishery Commission. (J Lothigius, *Enviro*, Vol 20, April 1996).

¹³⁵ Victor, above n 98, 189.

¹³⁶ Of these, the PLC exercises stand out: PLC-2 generated significant new information between 1990-1992, and in 1996 PLC-3 began to provide unprecedentedly comprehensive and comparable data on 1995 pollution loads from land-based sources: *ibid* 204. This issue was further developed through the 1998 Ministerial Declaration, devoted to carrying out an extensive assessment of the implementation and effectiveness of this regime.

¹³⁷ UNEP/GPA Coordination Office, *Partners in Implementing the GPA, Regional Seas*, The Hague, The Netherlands, Issue 1.1, October 1999, 30.

¹³⁸ (As most of the countries including Baltic countries encourage public participation on environmental issues). However, there are a lot of criticisms in relation to the public participation process adopted in different countries of this region. (For details see S Stec, *Manual on Public Participation in Environmental Decision Making: Current Practice and Future Possibilities in Central and Eastern Europe* (Regional Environmental Centre for Central and Eastern Europe, 1995).)

¹³⁹ For example Sweden has complied with most international environmental commitments and taken stringent measures to reduce LBSMP in the Baltic Sea. On the other hand Poland has taken little initiative to control Baltic effluents. See also J Ciechanowicz, 'The Helsinki Conventions: Implementation in Poland' (1998) 13 *International Journal of Marine and Coastal Law* 403-411.

institutional organ for implementation, HELCOM, has no independent authority to oversee implementation of the Convention's provisions, HELCOM's recommendations or Ministerial declarations. Implementation of these issues still depends on the goodwill of the Contracting Parties.¹⁴⁰ For example, due to the recommendations' non-binding legal nature, they have not been incorporated in Polish Law.¹⁴¹ Like the superseded *Paris* Convention, this Convention's provisions are often indeterminate and the legally binding norms are considerably less explicit here.¹⁴² Substantial amounts of nutrients and hazardous substances are still entering the coastal zones of the Baltic Sea.¹⁴³ It indicates that a major task remains for HELCOM and requires a further surge of cooperation between the countries of the region.

In response to this challenge, the 1992 *Helsinki* Convention Contracting Parties decided in 1999 to reorganise HELCOM to promote the accomplishment of the overall goal of marine environmental protection. The following subsidiary bodies were established in the new HELCOM: a strategy group for following developments within environmental policy; a monitoring and assessment group for focusing on input load and the environmental status; a land-based pollution group for designing measures to reduce pollution from land-based sources; and a nature conservation and coastal zone management group for protecting nature and biodiversity. These bodies prioritise eutrophication (especially the contribution of agriculture); hazardous substances; land transport issues; harmonisation of HELCOM recommendations with EU directives; and implementation of the Joint Comprehensive Environmental Action Program and HELCOM Recommendations.¹⁴⁴

In spite of this restructure, further environmental efforts to build up substantial implementation capacity are needed.¹⁴⁵ Political and economic complexities need to be reduced and funding and commitment increased to improve domestic legislative and administrative infrastructure for greater LBSMP control.¹⁴⁶

IV CONCLUSION

This paper has revealed that regional legal and institutional frameworks for LBSMP control in the North East Atlantic and Baltic Sea regions have come to play a significant

¹⁴⁰ See A Kiss and D Shelton, *Manual of European Environmental Law* (Cambridge University Press, 2nd ed, 1997) 365.

¹⁴¹ Ciechanowicz, above n 139, 406.

¹⁴² J Ciechanowicz, *The Protection of the Marine Environment of the Baltic Sea in View of the New Helsinki Convention of 1992: Present Problems of International Law in Today's World* (Memorial Book of Professor Marian Iwanejko, 1995) 225.

¹⁴³ Helsinki Commission Informs, Baltic Marine Environment Protection Commission, Press Release, A Strengthened HELCOM, 7 September 1999.

¹⁴⁴ Ibid.

¹⁴⁵ For example US \$400 million is required if HELCOM recommendations are to be met in full and US \$120 million is needed for sewers in Riga alone. (Cited in A Roginko, 'Domestic Implementation of Baltic S4ea Pollution Commitments in Russia and the Baltic States' in D G Victor et al (eds), *The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (International Institute for Applied Systems Analysis, 1998) 602 where only 5.6 per cent of the total sewage was treated: at 617).

¹⁴⁶ UNEP, GPA News Forum, Information Note to the Delegates of the 1999 SIDS/UNGASS, (1999), 4. Although HELCOM has been active in making recommendations on measures that are to be incorporated into the national legislation of the member states, this does not happen always because of the above-mentioned complexity.

role. These instruments initially led the way forward to control LBSMP. Although the degree of strictness varies, these regional agreements have obliged Contracting Parties to take preventive measures to reduce accidents, and ensure monitoring and inspection by competent authorities to control LBSMP. International management principles are duly undertaken these legal instruments.

Taking into account appropriate measures and techniques, greater emphasis has been placed on the control and elimination of all categories of LBSMP. Various recommendations, plans and declarations have been adopted to protect the marine and coastal environment of these regions from LBSMP. In undertaking Action Plans, organising conferences, adopting recommendations and using best available technology and the best environmental practice these regions have achieved notable development to control LBSMP.

While acknowledging these advances of LBSMP in North East Atlantic Sea and Baltic Sea regions, there are still some deficiencies in these regional arrangements from implementations point of view which require further development of cooperative arrangements and measures, including more efforts for the reduction of political and economic complexities and significant capital expenditure for LBSMP control.