

THE CRITICAL ENVIRONMENTAL SITUATION OF THE BLACK SEA REGION

1. INTRODUCTION

In only three decades, the Black Sea which is regarded as «the most seriously degraded regional sea»¹, has deteriorated dramatically in terms of its biological diversity, habitats, fisheries resources, aesthetic and recreational value and water quality. The present environmental crisis has been precipitated largely by ignoring the hidden costs of uses ranging from fishing, tourism, mineral extraction, dumping on one hand, to its use as a cheap transport route on the other². Annually, the total amount of pollution generated from land based, atmospheric and shipping related activities is estimated about 20.000 kg. per one km³ of the Black Sea water. Oil pollution is estimated over 100.000 tons per year excluding the illegal deballasting of oil tankers, which is well known to occur in the Black Sea. This amount of pollution is about the carrying capacity of the Black Sea ecosystem and poses a significant threat for the environmental quality of the region. In addition to the amount of pollution, the semi-enclosed, two layered physical characteristics of the sea and its wide drainage basin enhance the vulnerability of the Black Sea to new human impacts.

The existence of a strong and complete legal system for the environmental protection of a regional sea, such as the Black Sea, is the best guarantee for achieving an effective protection of its marine and coastal environment. However, the mere adoption of norms is not enough to pursue this aim, as every norm needs to be implemented effectively. In the first part of

1. See SAMPSON, M., (1995), *Black Sea environmental co-operation: States and the most seriously degraded regional sea*, BOGAZICI JOURNAL, 9, 51-76.

2. See GEF BSEP, (1997), *Black Sea Transboundary Diagnostic Analysis*, Istanbul, 142 pages.

3. See MEE, L.D., (1992), *The Black Sea in Crisis: A Need for Concerted International Action*, AMBIO, 21, 278-286.

this paper, the different characteristics of the Black Sea regional co-operation in marine environmental affairs will be presented. In its second part, particular attention shall be paid to the various environmental legal regimes for the protection of the Black Sea (universal, regional and national) and their implementation in practice.

2. CHARACTERISTICS OF THE BLACK SEA REGIONAL CO-OPERATION IN MARINE ENVIRONMENTAL AFFAIRS

In 1987, the United Nations Environment Programme (UNEP) explored the interest in the development of an environmental Action Plan for the Black Sea through direct approach to Black Sea States. Furthermore, Decision 15/1 of the Fifteenth Session of the Governing Council of UNEP (1989) approved the development of an Action Plan for this region. But while some of these States expressed their interest in the development of the Action Plan in the framework of UNEP Regional Seas Programme, others preferred the development of a programme for the environmental protection of the Black Sea through direct multilateral agreement between the interested States, without involvement of the United Nations system. In fact, Black Sea States originally followed this way of action. Thus, Bulgaria, Georgia, Romania, the Russian Federation, Turkey and Ukraine adopted in 1992 the framework Bucharest Convention and its related Protocols. But we must take into account that Article V paragraph 5 of the Bucharest Convention stipulates that:

«The Contracting Parties will co-operate in promoting, within international organisations found to be competent by them, the elaboration of measures contributing to the protection and preservation of the marine environment of the Black Sea».

Moreover, in Resolution 3 adopted at the same 1992 Bucharest Diplomatic Conference on the Protection of the Black Sea, Black Sea States decided to invite UNEP Regional Seas Programme to co-operate with the Contracting Parties and/or the Istanbul Commission for the elaboration of a Black Sea Action Plan, including provision of assistance and equipment as well as a preliminary work programme for priority environmental issues that were expressly identified in that Resolution. Furthermore, the Final Act of the Ministerial Meeting on the Declaration on the Protection of the Black Sea (Odesa, April 6-7, 1993) insisted on this invitation.

Thus, on the one hand, at the legal stage of regional environmental co-operation, the system for the environmental protection of the Black Sea, as

it was originally designed, enjoyed a hybrid character, specially if compared with other regional approaches. Black Sea States chose to follow the decentralised or anarchic diplomacy approach, that is, the direct multilateral legal negotiations among the concerned States, instead of acting in the framework of an international organisation, such as UNEP. But at the same time, they followed the common UNEP pattern for the environmental protection of a regional sea, based on the (future) adoption of an action plan, with one regional legal component. Even the implementation of this regional legal component closely followed, at first sight, the UNEP Regional Seas Programme pattern, as it is formed by a framework Convention, that is, the Convention on the Protection of the Black Sea Against Pollution and, by the moment, its three related Protocols: the Protocol on Protection of the Black Sea Marine Environment against Pollution from Land-based Sources; the Protocol on Co-operation in Combating Pollution of the Black Sea Marine Environment by Oil and Other Harmful Substances in Emergency Situations; and the Protocol on the Protection of the Black Sea Marine Environment against Pollution by Dumping, all of them adopted in Bucharest on 22 April 1992³. But as far as becoming a Contracting Party to the Bucharest Convention implies automatically being also a Contracting Party to all its related Protocols, the final result achieved for the Black Sea departs from the UNEP pattern, which is characterised by a normative asymmetry, that is, by a high degree of flexibility concerning the rights and duties provided for each Contracting Party, and it becomes closer to the Northern European States system, based on the full equality in rights and duties among the different Contracting Parties⁴.

On the other hand, at the political level of regional environmental co-operation, two facts deserve to be taken into account. Firstly, the inexistence of developed States in the Black Sea region. None of the six Black Sea States can be considered as being a developed country, with enough capacity to lead the environmental action needed for an effective protection of the Black Sea. Secondly, the economic constraints of most of Black Sea States highlighted, as time evolved, the real need for technical and financial assistance from different international organisations of the United Nations sys-

4. See SORENSEN, J., (1995), *A comparative analysis and critical assessment of the regimes to manage the Black Sea and the Mediterranean Sea*. In: E. ÖZHAN (ed.), PROCEEDINGS OF THE SECOND INTERNATIONAL CONFERENCE ON THE MEDITERRANEAN COASTAL ENVIRONMENT, vol. 1, 697-718.

tem. It must be taken into account that the Bucharest Convention and its related Protocols have established rules, but they have not settled down goals, priorities and timetable needed to bring about environmental actions. For this reason, the Environmental Ministers from the six Black Sea States signed in April 1993 the Odesa Ministerial Declaration on the Protection of the Black Sea Environment. The political regional co-operation for the environmental protection of the Black Sea began with the Odesa Declaration, which is a document based largely upon Agenda 21 adopted at the Rio Conference on Environment and Development⁵.

In fact, in order to make an early start to environmental action and to develop a longer-term Action Plan, Black Sea States requested support from the Global Environmental Facility (GEF), which was established in 1991 as a US \$ 2 billion fund under the management of the World Bank (WB), the United Nations Development Programme (UNDP) and UNEP. In June 1993, GEF established a three-year Black Sea Environmental Programme (BSEP) with US \$ 11 million initial funding, further supported by UNDP funding of about US \$ 400.000. It also attracted some US \$10 million in parallel grant funding from multilateral and bilateral donors, notably the European Union (Phare and Tacis Programmes), The Netherlands, France, Austria, Canada and Japan. BSEP has been closely linked to programmes supported by partner agencies in the UN system, such as UNEP, United Nations Food and Agriculture Organization (FAO), International Maritime Organization (IMO), World Health Organization (WHO), International Atomic Energy Agency (IAEA), Intergovernmental Oceanographic Commission of UNESCO (UNESCO/OIC), as well as programmes organised by other multilateral organisations, such as the Science for Stability Programme of NATO. The Turkish Government has always been an active participant thereof, and its contribution to BSEP through its annual in-kind support of US \$ 70.000 which has covered the costs of the Programme Co-ordination Unit (PCU) of BSEP.

The first Meeting of the BSEP Steering Committee took place in Varna (Bulgaria) in June 1993. At this Meeting, national delegates from the six Black Sea States met together with GEF Partners, donors and representatives from different Non Governmental Organisations (NGOs), in order to

5. See HEY, E.; MEE, L. D., (1993), *The Ministerial Declaration: An Important Step*, ENVIRONMENTAL POLICY AND LAW, 23, 215 et seq.

define a three-year workplan. This Meeting selected the following three objectives for BSEP: (i) to improve the capacity of Black Sea States to assess and manage the environment; (ii) to support the development and implementation of new environmental policies and laws; and (iii) to facilitate the preparation of sound environmental investments⁶. In fact, it was expected that BSEP would produce the following outputs: (i) a short-term strategy to attain a more sustainable ecosystem in the Black Sea; (ii) preparation and adoption of a Black Sea Action Plan; (iii) support systems for implementing the Bucharest Convention and the Odesa Declaration; (iv) training modules for capacity building, human resources development and environmentally sound investment policies; and (v) preparation and partly implementation of a list of urgent investments⁷. Initially, BSEP was designed to cover a three year period, from 1993 until 1995, but it was extended until the end of 1998. During this time, BSEP promoted the adoption of measures in order to develop an appropriate policy for the assessment, control and prevention of pollution in the Black Sea region. These measures closely followed the contents of UNEP's Regional Seas Programme.⁸ But although BSEP has provided the most accurate information until now on the state of the marine pollution in the Black Sea⁹, it is discouraging that this amount of information has not been translated into the adoption of legal measures to strengthen the Bucharest Convention. The hiatus between the acquisition of scientific environmental knowledge and the adoption of legal measures can be partly explained, but never justified, if the bodies responsible for each task are considered. While the acquisition of scientific environmental knowledge has taken place satisfactorily within the framework of GEF BSEP, the adoption of legal measures and decisions has been left to the exclusive competence of

6. See SEZER, S., (1998), *Integrating economics into environmental management. Case study: The Black Sea Environmental Programme*. In: G. KOCASOY (ed.), *The Kriton Cury International Symposium on Environmental Management in the Mediterranean Region*, vol. 1, 176-182.

7. See the document RER/92/G31/B/G1/31. GEF: Project Document. Environmental Management and Protection of the Black Sea.

8. See GEF BSEP, (1995), 1994 Annual Report, Istanbul, 44 pages; GEF BSEP, (1996), 1995 Annual Report, Istanbul, 38 pages; GEF BSEP, (1997), 1996 Annual Report, Istanbul, 45 pages; GEF BSEP, (1998), 1997 Annual Report, Istanbul, 39 pages.

9. See GEF BSEP, (1997), *Black Sea Transboundary Diagnostic Analysis*, Istanbul, 142 pages.

the Istanbul Commission, an international body composed only by representatives from the different Black Sea States. Unfortunately, until now Black Sea States have not succeeded in establishing the permanent Secretariat to the Istanbul Commission. Therefore, although the Istanbul Commission was contemplated in the 1992 Bucharest Convention, ten years later this international body has not started yet to carry out some of its most important functions.

As a result of the work carried out in the framework of BSEP, the six Black Sea States adopted the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea (Istanbul, 31 October 1996). Although in its Preamble Black Sea States appreciated the progress that had been made towards attaining sustainable development in the Black Sea region through the actions taken within the GEF BSEP, the 1996 Black Sea Strategic Action Plan was adopted exclusively by Black Sea States, without any participation of the GEF. Furthermore, the duty to implement this Strategic Action Plan falls again mainly within the responsibilities of the Istanbul Commission. Moreover, the Strategic Action Plan contains a very general appeal concerning co-operation with international organisations. Pursuant to it, Black Sea States «shall individually and jointly encourage a close co-operation with relevant international organisations, including UN Agencies and international NGOs in implementing this Strategic Action Plan» (paragraph 26, d). But the lack of determination both in identifying which are those relevant international organisations and in assigning them specific roles, may cause uncertainties with important effects on the institutional and financial aspects needed for the implementation of this Strategic Action Plan.

There is no doubt that BSEP has achieved much in a relatively short period of time. In fact, as a consequence of BSEP, many institutions in the region have currently sufficient technical capacity to implement the Black Sea Strategic Action Plan. But once BSEP was over, it became clear and urgent the need to establish immediately both a Black Sea Environmental Fund, financed by Black Sea States, and the Secretariat to the Istanbul Commission in order to ensure the successful implementation of the Bucharest Convention and other policies and action plans. These two topics were discussed at length at the Sixth Meeting of the Black Sea Steering Committee¹⁰, held at Istanbul from 14 to 15 December 1998, where it was agreed the

10. See the Document BS-PIU/SC6/98: PIU OF THE BSEP: Summary Report of the

effective establishment of both institutions before April 1999 and the commitment of each Black Sea State to contribute to the BSEP funds with US \$ 19.400 in order to ensure the survival of the Programme Co-ordination Unit (PIU) of BSEP until that date. The effective implementation of these requirements were considered as a pre-condition in order to negotiate in April 1999 a new programme of about US \$ 30-35 million with the GEF Council. This new GEF programme will replace the former BSEP and it intends to finance one sound and large scale project in each of the six Black Sea States with the objective of addressing the biggest single problem of the Black Sea: eutrophication¹¹. Hence, the establishment of the Secretariat to the Istanbul Commission and financial contributions by Black Sea States are critical in this respect and it will also be recognised by other potential multilateral and bilateral donors, including WB, which is planning to allocate a loan of US \$ 500 million for environmental investment projects in the Black Sea region. But the premise is failing. Although US \$ 19.400 does not represent a big amount of money for States, until now only Bulgaria and Turkey have expressed their will to contribute to this fund; the other four Black Sea States have already announced that they will not contribute to this environmental fund for the Black Sea. This weak environmental commitment of the six Black Sea States with the need to protect their environment may well mean the end of any international action concerned with the environmental protection of the Black Sea region, as outsiders donors and investors begin to think about the convenience to lend money for the environment in a region where coastal States are not interested in its protection.

3. THE LEGAL REGIME FOR THE ENVIRONMENTAL PROTECTION OF THE BLACK SEA REGION

The environmental legal regime for the protection of a regional sea is the result of the environmental measures, criteria, standards and procedures provided for at three different legal levels: international, regional and national law.

Sixth Meeting of the Black Sea Environmental Programme Steering Committee (Istanbul, Turkey, 14-15 December 1998).

11. There is no more recent information available.

3.1. International environmental law for the protection of the Black Sea region

International treaties, customary law, general principles of law, as well as significant policy documents such as the Declaration of the 1972 Stockholm Conference, Agenda 21 and the Rio Declaration, have all had and will continue to have a smaller or larger impact on the legal developments in the Black Sea region. Therefore, legal instruments especially applicable to this region cannot justifiably be considered in isolation. The regime provided for by treaties of a broader geographical scope of application, the rules provided by customary law or general principles and the agendas prepared at international level are highly relevant, and cannot be disregarded if legal regimes for the Black Sea region, and national laws and measures within its countries, are to develop into efficient tools. According to scholars, it is indeed international law that can be used to secure harmonisation and development of national environmental law, that can facilitate compensation for environmental damage, and provide for penalties and other sanctions to be employed under national law against individuals and companies whose activities are harmful to the environment¹².

This paper will not examine the whole range of customary rules or principles which may or may not be applicable when it comes to environmental protection. We shall say that there are, at least, two international customary rules whose existence is not questioned and that are applicable in the environmental field. The first one establishes the duty of all States to co-operate in the protection of the environment. This duty includes the obligation of an early notification of whatever situation that causes or may cause an appreciable environmental harm to another State and the obligation to negotiate and adopt measures that will avoid the repetition of the same environmental harm or risk in the future. The second international customary norm establishes the obligation that States shall individually and jointly prevent pollution, both transboundary and global pollution. At least one environmental principle embodied in the Rio Declaration, that is, the precautionary principle, also applies in the Black Sea region, as reflected in the Odesa Declaration. The Rio Declaration defines the precautionary principle as follows: «Where there are threats of serious or irreversible damage, lack of full sci-

12. See BIRNIE, P. W.; BOYLE, A. E., (1992), *International Law and the Environment*, Oxford, p. 5

entific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation».

More important is to mention the existence of different international treaties aimed at protecting the marine environment and the land and nature which are directly relevant to the Black Sea. The first one is the 1982 United Nations Convention on the Law of the Sea. Although at 1 April 1999, Bulgaria, Russia, Georgia and Romania were the only Black Sea States that had ratified this Convention, it is important to bear in mind that part of its contents is becoming more and more important as customary law and hence those contents are binding for all States; including all Black Sea States. This is the case, for instance, with its Part XII, devoted specifically to the marine environmental protection. Moreover, Black Sea States have claimed maritime zones (territorial seas, exclusive economic zones) in accordance with the provisions of this Convention and it may well serve as guidance in future delimitation agreements, which are needed for the implementation of the Bucharest Convention.

Another important Convention is the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). This Convention is almost universally applicable, it has already been ratified by all Black Sea States¹³ and is therefore fully in force in this region. Although Article VIII of the Bucharest Convention establishes very general obligations concerning pollution from vessels, this provision will not probably be complemented in the future with the adoption of an additional Protocol to the Bucharest Convention due to two main reasons. The first one is that MARPOL 73/78 contains very specific and technical measures for preventing this source of marine pollution. In fact, MARPOL 73/78 has six Annexes concerned with oil (Annex I), noxious liquid substances in bulk (Annex II), harmful substances carried by sea in packaged forms (Annex III), sewage (Annex IV) garbage (Annex V) and air pollution from ships (Annex VI). It is difficult to conceive a regional Protocol settling down more stringent measures and standards than those provided for by MARPOL 73/78. The second reason is that MARPOL 73/78 has been almost universally accepted and hence it is binding even for ships flying the flag of a non Black Sea State when they navigate through the Black Sea.

13. Only Romania and Turkey have not ratified optional Annexes III and IV. Annex VI has not yet entered into force.

If enforced, the regime provided for by MARPOL 73/78 will serve as a strong complement to the Bucharest Convention's provision on oil pollution. Unfortunately, the provisions of MARPOL 73/78 have neither been fully nor consistently applied by Black Sea States. For the enforcement of MARPOL 1973/78, States that have ratified it must implement its requirements in respect of all vessels flying their flag and on all other ships in their waters and ports, but many fail to do so. Implementing MARPOL 1973/78 implies that a national maritime administration should exist. Although all Black Sea States have already established such administrations, none of them is extensive enough to perform all of its obligations under international marine safety and pollution conventions. Insisting on this point, the 1996 Black Sea Strategic Action Plan underlined the need that MARPOL 1973/78 should be more effectively implemented by Black Sea States (paragraph 36), taking into consideration that in most cases, lack of MARPOL implementation has structural causes, i.e. lack of resources, or know how.

Another feature of MARPOL 73/78 is that it offers a possibility of extra protection for the Black Sea region, having designated the whole Black Sea region as a «special area» within several of its Annexes. In particular, the Black Sea was designated as a «special area» more than twenty years ago under Annexes I, II and V of MARPOL 1973/78¹⁴. For the purposes of MARPOL 1973/78, «special area» means a sea area, where the adoption of special mandatory methods for prevention of marine pollution by ships is required for recognised technical reasons, in relation to its oceanographic and ecological conditions and to the particular character of its traffic¹⁵. «Special areas» imply the application of a regime, stricter than MARPOL 1973/78's «main» regime, such as: complete prohibition of discharges of oil under Annex I, stricter restrictions on discharges of residues containing noxious substances under Annex II and the complete prohibition on the disposal of garbage under Annex V¹⁶.

The designation of the Black Sea as a «special area» under MARPOL 1973/78 implies that a sound system of reception facilities in the Black Sea

14. See the corresponding Articles 10, 1/7 and 5.

15. See Article 1/10 of Annex I; Article 1/7 of Annex II; and Article 1/3 of Annex 5 to MARPOL 1973/787.

16. See MEE, L. D.; BARTMAN, J. J., (1995), *Improving the legal framework for managing the Black Sea environment, the maritime transport sector*, GEF PCU, Istanbul.

ports is required, especially for oil, chemicals and garbage. Five out of six annexes of MARPOL 1973/78 contain regulations requiring the establishment of reception facilities by the coastal States concerned. The responsibility of the coastal States concerned is not to install these reception facilities themselves, but to urge the port authorities or terminal operators to provide these facilities by whatever mean. The situation concerning these port reception facilities in the Black Sea was so disappointing during the mid 1990's, that the 1996 Black Sea Strategic Action Plan highlighted that:

«Due to the rapid increase in traffic to Black Sea ports, the capacity of harbour reception facilities needs to be enlarged in order to comply with MARPOL Special Area requirements. Harbour reception facilities will be installed: for garbage by December 1999; for oil by December 2000; and for chemicals by December 2002. The use of these facilities shall be made compulsory. In installing harbour reception facilities close cooperation with the private sector will be pursued, the advice of the IMO will be requested, and the results of the study conducted by the BSEP and the European Union will be taken into account» (paragraph 37).

Currently, the ports of Novorossiysk, Varna, Burgas, Constanta, Poti, Trabzon, Samsun, Hopa, Giresun and all Ukrainian ports except Odessa and Feodosia are partially equipped with such facilities. Odessa and Feodosia are fully equipped including reception facilities for dirty ballast and washing waters from tankers, but it is not possible to make a further assessment of their performance because of lack of accurate reports and data. Concerning deballasting and bilge installations, the infrastructure in Odessa, Constanta, Varna and Novorossiysk is in good condition; this is not the case with the other ports. The situation is particularly critical in Poti and Batumi, which may suddenly come under enormous commercial pressure to export large quantities of Caspian oil but which are not properly prepared to face this challenge. In order to improve the reception facilities in the Black Sea ports, two projects have been initiated under the sponsorship of TACIS and Phare programmes of the European Union. In these projects, shipping related hot-points have been identified for the Black Sea ports. Concerning Poti, purchase of a solid oily waste treatment plant, installation of a port incinerator and upgrading of the bilge water and sewage collector (taking into account the development of the port of Supsa, which is located close to Poti) has been considered as necessary. A waste prevention plan already exists in Supsa and bilge water and sewage collection is available. In Batumi, reconstruction of oily wastewater treatment facilities of the central handling terminal has been identified as necessary. To sum up, more than twenty years

after the designation of the whole Black Sea region as a special area under MARPOL 1973/78, the situation of port reception facilities cannot be considered as satisfactory¹⁷.

The situation could become even worse. In the context of vessel-source pollution, the Black Sea region, including the Turkish Straits, is under significant stress, due to increase in the near future, in case of transportation of the «full production» Caspian crude oil to the world markets through the Black Sea and the Turkish Straits. The urgent need for enhanced planning and action related to pollution generated from vessels is more evident with the increasing use of the Black Sea as a transport route for the Caspian crude oil, which started in 1996¹⁸. This so-called «early oil» is small in quantity if compared with the projections concerning later output from the estimated 3.8 billion-barrel reserve. It is estimated that the peak production and export levels will reach 700.000 barrels per day by the year 2010. Considering the seriousness of the threat posed by the increasing volume of shipping related activities, there is an urgent need not only to implement more effectively the existing regulations, but even to take other necessary early measures in the region¹⁹.

Another environmental problem related to shipping activities is the introduction of exotic species through ballast water. Ballast water is pumped into special containers or tanks in order to stabilise a ship when the ship is not carrying any cargo. Ships usually fill their ballast tanks in ports near the coasts. Meanwhile, suspended matter and various planktonic organisms are also pumped into the tanks with the water. Many organisms survive the trip in the ballast water or in their sediments, sometimes as spore and eggs. Upon arrival at the ship destination, ballast water is discharged into the sea and the organisms find themselves in a new environment. If the conditions are

17. See PUGHIUC, D., (1998), *Proposals regarding the implementation of shipping-related activities in the Black Sea Strategic Action Plan*, Varna, Bulgaria.

18. See GEF BSEP, (1996), 1995 Annual Report, Istanbul.

19. On the problem concerning the transportation of the Caspian crude oil through the Black Sea and the Turkish Straits, see BÖLÜKBASI, S., (1998), *The controversy over the Caspian Sea mineral resources: conflicting perceptions, clashing interests*, EUROPE-ASIA STUDIES, 50, 397-414; GÜNES, S., (1999), *The Transportation of the Caspian Oil through the Black Sea: Environmental Concerns*. In: E. Özhan (ed.), *Land-Ocean Interactions: Managing Coastal Ecosystems*. PROCEEDINGS OF THE JOINT CONFERENCE, volume 2, pp. 1279-1288.

favourable to their particular needs, the organisms may survive and even become naturalised. Considering the huge number of ocean-going ships throughout the world, it is estimated that ten billion tons of ballast water is transferred and some three to four thousand species are carried among different ecosystems each year²⁰. The introduction of exotic species transferred by ballast waters of the ships is as important as the amount of pollution generated from vessels, not only because of their severe environmental effects, but also for their economic repercussions on the fisheries sector. This is a problem well known in the Black Sea. In the last hundred years, vessels brought more than 20 exotic species in the coastal waters of the Black Sea by ballast water transfer from different sections of the world oceans. Among these exotic species, Rainbow jellyfish (*Mnemiopsis Leidy*) deserves a particular mention. This species was introduced into the Black Sea by ships from the Atlantic coast of North America. Rainbow jellyfish grows to a size of up to 10-15 centimetres and as an active predator feeds on zooplankton, eggs and fish larvae. By the end of the 1980's the total biomass of Rainbow jellyfish in the Black Sea basin was estimated as one billion tons which had dramatically destructed the commercially important industry of anchovies and sprot fisheries. Accordingly, fisheries decline due to Rainbow jellyfish was quantified as 200 millions US Dollars per year by the United Nations Food and Agriculture Organisation (FAO). The indirect costs related to the idle fishing infrastructure (fishing fleet, ports, processing factories and so on) were estimated as 500 millions US Dollars per year. This is a kind of environmental problem that cannot be solved at a regional Black Sea level.

Hence, in order to prevent the transportation of species through ballast waters and to lessen the negative impacts of ballast waters exchange at world wide level, the International Maritime Organisation (IMO) undertook an in depth study. Having adopted a set of non mandatory guidelines in 1997, IMO is now preparing a binding international document concerning ballast waters management, considered to be a global problem, which is scheduled to be adopted by an IMO Conference by the year 2000 or 2001. If observed, IMO guidelines could help reduce significantly the threat posed by uncontrolled ballast water releases but compliance with these voluntary guidelines is not encouraging at the moment. Given the importance of the threat

20. See ZAITSEV, Y.; MAMAEV, V. (1997), *Marine biological diversity at the Black Sea*, UN Publications, New York.

posed by ballast water transfer to the Black Sea, the coastal States of this region agreed to present a joint proposal to IMO for conducting a study on measures to avoid any further introduction of exotic species in the Black Sea²¹, but no such achievement is reported on this matter yet.

It is also worth noting that even in the environmental fields covered by specific Protocols to the Bucharest Convention, international law has evolved with time and new instruments have appeared. This is the case, for instance, with the 1972 London Dumping Convention, that has been fully amended with the adoption of the 1996 London Protocol. This is also the case with the Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities and the Declaration of Principles on Protection of the Marine Environment from Land-Based Activities, both of them adopted in Washington D.C. in November 1995. Undoubtedly, as these international instruments reflect the newest trends of international environmental law concerning these topics, Black Sea States must pay appropriate attention to them and try to update accordingly the specific Protocols to the Bucharest Convention.

We must mention several conventions due to their significant role as legal instruments within the field of nature preservation²² and which are or might prove of relevance to the Black Sea region, such as the 1971 Convention on Wetland of International Importance, Especially as Waterfowl Habitat (Ramsar Convention); the 1973 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and the 1979 Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention). Although the six Black Sea States as a whole have not ratified any of them (but for instance, Turkey ratified the Ramsar Convention on 17 May 1994; CITES on 20 June 1996 and so on), it seems realistic to expect in the near future a full ratification of all these conventions by the six Black

21. Paragraph 41 of the Strategic Action Plan for the Rehabilitation and protection of the Black Sea states that: «Black Sea states will present a joint proposal to the IMO, in 1997, for conducting an in-depth study on measures to avoid any further introductions of exotic species into the Black Sea through the deballasting of vessels. Given the danger of such species migrating to other seas in the region, the coastal states of the Caspian and Mediterranean Seas will be consulted».

22. See BOU, V., (1995), *Protected Areas and Species: The Mediterranean Basin*. in: E. ÖZHAN (ed.), PROCEEDINGS OF THE SECOND INTERNATIONAL CONFERENCE ON THE MEDITERRANEAN COASTAL ENVIRONMENT, vol. 2, pp. 671-696.

Sea States. In fact, these conventions have already been relevant for the Black Sea independent of their ratification by Black Sea States. For instance, although none of the Black Sea States had ratified the Bonn Convention, all of them participated in the adoption of the 1996 Agreement on the Conservation of Cetaceans on the Black Sea, the Mediterranean Sea and Atlantic contiguous area (Monaco Agreement), which is in fact an Agreement implementing the Bonn Convention²³.

Lastly, the 1992 Biological Diversity Convention is the first global instrument to follow a comprehensive approach to the problem of conserving the world's biological diversity and of using its biological resources sustainably. Thus, it could be seen as providing an international framework for conserving biodiversity, even though most of its provisions set out general policies, rather than precise obligations or targets. Though not all Black Sea States have ratified it yet, and its contents may not have evolved into customary law rules as yet, the Biodiversity Convention, negotiated by a large number of countries, is deemed to have a large influence on nature conservation all over the world.²⁴

3.2. Regional environmental law for the protection of the Black Sea region

The regional law for the Black Sea is represented by the Bucharest Convention and its three related Protocols, which are an integral part thereof. It must be taken into account that the Bucharest Convention and its related Protocols were adopted on 22 April 1992. Thus, they were not able to receive all the new environmental concepts and strategies that arose in the Rio Conference on Environment and Development, held a few months later.

This inadequacy is reflected, for instance, in the main general undertaking of the Bucharest Convention, which consists in the undertaking of the Contracting Parties to «take individually or jointly, as appropriate, all

23. See BOU, V., (1999), *The Agreement on the Conservation of Cetaceans on the Black Sea, the Mediterranean Sea and Contiguous Atlantic Area*. In: P.G.H. EVANS; J. CRUZ; J. A. RAGA (eds), PROCEEDINGS OF THE THIRTEENTH ANNUAL CONFERENCE OF THE EUROPEAN CETACEAN SOCIETY, pp. 82-86.

24. See MAFFEI, M.C., (1993), *Evolving Trends in the International Protection of Species*, GERMAN YEARBOOK OF INTERNATIONAL LAW, 36, 131-186; BAARTMAN, N., (1998), *Analysis of the Practice of National and International Environmental Law in the Black Sea Region*, GEF-BSEP, United Nations Publication.

necessary measures consistent with international law and in accordance with the provisions of this Convention to prevent, reduce and control pollution thereof in order to protect and preserve the marine environment of the Black Sea». After the Rio Conference, States have developed a more aggressive approach against pollution. Consequently, they considered that adopting measures to prevent, reduce and control pollution was not enough and therefore they introduced a new objective consisting in adopting measures in order to eliminate pollution to the fullest possible extent.

For reaching this aim, new environmental principles appeared (such as the precautionary principle or the polluter pays principle), some general obligations have been implemented with very specific norms and criteria (such as the norms and criteria implementing the duty to carry out environmental impact assessments or the duty to use the best available techniques and the best environmental practices, including the application of, access to and transfer of clean production technologies) and new strategies have been developed (such as the adoption of programmes and mandatory measures which contain, where appropriate, time limits for their completion in order to pursue the progressive elimination of pollution).

But neither the Bucharest Convention nor its related Protocols have introduced this more aggressive objective. Therefore, there is no mention at all of the new environmental principles that have emerged during the last few years. No concrete norms and criteria have been provided for in order to implement the general and soft duties set out in Article XV, paragraphs 5 (environmental impact assessments) and 6 (clean and low-waste technology) of the Bucharest Convention. In fact, the criteria established in Sections D (Availability of waste technology) and E (Potential impairment of marine ecosystems and sea-water uses) of Annex III of the Land Based Sources Protocol and in Section C (General considerations) of Annex III of the Dumping Protocol cannot fulfil this function due to different reasons. First, they are not valid for every source of marine pollution, but only for either dumping or land based pollution. Second, these criteria are very general and old-fashioned and therefore no concrete common terms of reference can be obtained from them. At least, we must highlight that there is a provision (Article 6 of the Land Based Sources Protocol) that foresees, with a partial character, the new strategy developed after the Rio Conference. But this provision is valid only for pollution from land based sources and is a *pacto de contrahendo*, as it leaves for the future the adoption by the Istanbul Commission of common emission standards and timetable for the imple-

mentation of the programme and measures aimed at preventing, reducing or eliminating, as appropriate, this kind of marine pollution.

Nevertheless, the Bucharest Convention has established general obligations dealing with five of the six sources of marine pollution: land-based (Article VII, implemented by the Land Based Sources Protocol), vessel-source (Article VIII), dumping (Article X, implemented by the Dumping Protocol), offshore pollution (Article XI) and atmospheric pollution (Article XII). The only source of pollution not covered by the Bucharest Convention is the one resulting from exploitation of the International Seabed Area, as there is no such area in the Black Sea. The Bucharest Convention also deals with emergency response (Article IX, implemented by the Emergency Response Protocol), ruling the techniques to prevent pollution arising from accidents that take place in the Black Sea.

Black Sea States must implement, individually and jointly, the provisions of the Bucharest Convention and its related Protocols. In order to promote joint implementation of these regional legal instruments, the Bucharest Convention has foreseen the establishment of a Commission on the Protection of the Black Sea against Pollution, known as the Istanbul Commission, composed by representatives from each Contracting Party and assisted by a permanent Secretariat. It has also ruled the possibility of convening a Meeting of Contracting Parties in order to review the implementation of the Bucharest Convention and its related Protocols (Article XIX). Experience in earlier regional seas programmes has shown that the existence of an institutional structure, providing for a co-ordinating body, increases chances of success for a regional Convention. But in the case of the Black Sea, riparian States have failed in this point. Ten years after the adoption of the Bucharest Convention, the permanent Secretariat in Istanbul is still not established. Contracting States have also failed in requesting an international organisation to carry out secretariat functions. Lacking this technical support, the Istanbul Commission, which held its first Meeting in May 1995, has not yet proven to be the active, supervisory body as was intended by the Bucharest Convention. In fact, the Istanbul Commission has not been able to carry out some of its functions, such as making recommendations on measures and criteria necessary for achieving the aims of the Bucharest Convention; recommending amendments either to the Bucharest Convention or to its related Protocols, as well as to their annexes; or promoting the adoption of additional protocols. Therefore, there has been no need at all to convene any Meeting of Contracting Parties.

The result of this weak institutional structure is that the Bucharest Convention and its related Protocols have not been the dynamic legal system needed for the environmental protection of the Black Sea. On the contrary, they are a frozen legal system with no capacity at all either for evolving to face new environmental concerns or for updating its former contents in order to receive the newest environmental legal trends and concepts. In this regard, it must be pointed out that in the very same 1992 Diplomatic Conference on the Protection of the Black Sea, where the Bucharest Convention and its three related Protocols were adopted, the Russian Federation presented a draft Protocol concerning transboundary movement of hazardous wastes in the Black Sea and co-operation in combating illegal traffic thereof. Resolution number 1 of the 1992 Diplomatic Conference decided that priority shall be given to the elaboration and adoption of a Protocol on this topic. Furthermore, the 1996 Black Sea Strategic Action Plan insisted on the need of adopting this Protocol «without further delay» (paragraph 47). But leaving aside these political declarations, no concrete action towards the adoption of this Protocol has ever taken place. Moreover, in 1995 the Advisory Panel on the Harmonization of Environmental Quality Criteria, Standards, Legislation and Enforcement, which was a GEF BSEP working group, also recommended the elaboration and adoption of another Protocol concerning the conservation of biological diversity in the Black Sea²⁵. Again, the 1996 Strategic Action Plan insisted on the need to develop and adopt a Protocol on Biological Diversity and Landscape Protection to the Bucharest Convention by the year 2000 (paragraph 60). But, once again, no such action has taken place as yet.

A similar conclusion is reached when one considers whether the contents of the 1992 Bucharest Convention and its related Protocols are still useful or not for the environmental protection of the Black Sea at the beginning of the new millennium. On the one hand, after the Rio Conference on Environment and Development, new objectives, principles, norms and criteria, as well as new strategies have appeared in the environmental field. But the Bucharest Convention has not received these new environmental trends and concepts. Even worse, Contracting Parties have taken no action at all in order to amend and update the contents of the Bucharest Convention.

25. See GEF BSEP, (1995), *Recommendations of the Advisory Panel on the Harmonization of Environmental Quality Criteria, Standards, Legislation and Enforcement*.

On the other hand, the Land-Based Source Protocol and the Dumping Protocol are accompanied by annexes containing the so-called black, gray and green lists. In accordance with the general environmental practice that arose during the 1970's, pollution by substances on the black list (Annexes I), categorised as hazardous, needs to be prevented and eliminated by Contracting Parties. Pollution by substances on the gray lists (Annexes II), categorised as noxious, needs to be reduced and where possible eliminated. In the case of the Land-Based Source Protocol there is an additional Annex III, which prescribes restrictions to which discharges of substances and matters listed in Annex II should be subject. Furthermore, dumping of wastes and materials containing the noxious substances listed in Annex II requires a prior special permit from the «competent national authorities», while, according to Annex III, dumping of all other wastes and materials (known as the green list) requires a prior general permit. We must take into account that the three lists system, which was quite frequently used in international environmental law some years ago, nowadays has become an old-fashioned system. The three lists system was first used by dumping conventions, such as the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters (London, 29 December 1972) or the Protocol for the Prevention of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft (Barcelona, 16 February 1976). But these international treaties used the three lists system in a time when their objectives were to prevent, abate and control marine pollution. Nowadays, after the adoption of both the 1995 amendments to the Protocol for the Prevention and Elimination of Pollution of the Mediterranean Sea by Dumping from Ships and Aircraft or Incineration at Sea (Barcelona, 10 June 1995) and the 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters (London, 7 November 1996), both treaties have a more radical objective, that is, the elimination to the fullest extent possible of marine pollution. In order to reach this aim, both treaties have abandoned the three lists system and have replaced it with a general ban of dumping of waste and follow a system of reverse listing, which enumerates what wastes can be dumped at sea after obtention of a prior special permit from the competent national authorities. The shortcomings of the objectives of the Dumping Protocol to the Bucharest Convention are, then, evident, as far as this Protocol still follows the three lists system. In fact, the Dumping Protocol to the Bucharest Convention allows, under certain conditions, for the disposal at the Black Sea of harmful or noxious substances and materials included in

the gray and green lists. Consequently serious doubts arise about the usefulness of a regional Protocol, such as the Dumping Protocol to the Bucharest Convention, as far as it contains less strict environmental standards than those provided for by a universal treaty, such as the 1996 Protocol to the London Dumping Convention, which also applies to the Black Sea. It seems urgent to amend and update the Dumping Protocol to the Bucharest Convention following the newest environmental trends and concepts, but once again Black Sea States have taken no action at all towards this aim. The same situation occurs with the Land-Based Source Protocol to the Bucharest Convention, which is not in line with the 1995 Global Programme of Action for the Protection of the Marine Environment from Land-Based Activities.

3.3. National environmental laws for the protection of the Black Sea region

It is difficult to comment on the characteristics of domestic legislation of the different Black Sea States concerning the environmental protection of this semi-enclosed sea. This difficulty arises not only because it is not easy to have public access to the national environmental legislation of the States concerned, but also because of language constraints. Therefore, this section closely follows the conclusions of the study carried out in 1998 by *Netty Baartman* for the GEF BSEP²⁶. However, international and regional legal regimes require implementation at the national level. Effective implementation at the national level is the only real guarantee for success of international and regional legal systems on environmental protection of a particular region. But in countries like the former communist Black Sea States, where national legal regimes on environmental protection have started to develop only a few years ago, the immediate compliance with international and regional norms may be very difficult, as economic constraints makes the acquisition of clean production technologies very difficult. In Turkey, the only Black Sea State that has not been a former communist country, the situation is better, but not much better than the situation in former communist Black Sea States.

All Black Sea States have established environmental goals in their con-

26. See BAARTMAN, N., (1998), *Analysis of the Practice of National and International Environmental Law in the Black Sea Region*, GEF-BSEP, United Nations Publication.

stitutions and/or in their general environmental protection acts. All former communist Black Sea States have recently adopted such framework legislation. Turkey has had a general environmental act since 1982. Part of the implementation process consists in the creation of general environmental acts, in which goals are reflected, basic rights and duties are laid down, and procedures for implementation and enforcement are provided for. However, general environmental protection acts need to be implemented by sectoral acts, covering different environmental fields, and by administrative regulations. It is in this point where problems arise in the Black Sea States' domestic law. The former communist Black Sea States have begun to adopt sectoral acts on marine protection and on nature conservation, but their national legal systems are still far from complete²⁷. Again, Turkey's position is to some extent different. But although the Turkish general environmental act has been implemented for a longer period of time²⁸, the body of sectoral environmental acts is not complete even in this case. Therefore, a first consideration is that Black Sea States do not yet make full and effective use of environmental quality criteria and standards, which develop and translate general environmental goals into realistic, understandable and applicable limits for the potential polluters.

More complex and problematic is the task to ensure a strong administrative base (including trained and qualified staff), strong enforcement legislation, containing effective civil, criminal and administrative liability procedures, and actual access to court for those who have suffered environmental harm. In fact, the situation in all Black Sea States is discouraging in this point, as implementation and enforcement are the most underdeveloped parts

27. See POSTOLACHE, J.; NENCIU, C., (1996), *Reviews of Legal and Institutional Systems: New Regulations and Institution for Environmental Protection in Romania*. In: E. ÖZHAN (ed.), *Integrated Coastal Zone Management in the Mediterranean & Black Sea, Sarigerme* (Turkey), 301-308; ARCHER, J.H., (1995), *Bulgaria's coastal management program: the World Bank funds development of the first Black Sea ICAM effort*, OCEAN & COASTAL MANAGEMENT, 26, 77-82.

28. See ÖZHAN, E.; URAS, A.; AKTAS, E., (1993), *Turkish legislation pertinent to coastal zone management*. In: E. ÖZHAN (ed.), PROCEEDINGS OF THE FIRST INTERNATIONAL CONFERENCE ON THE MEDITERRANEAN COASTAL ENVIRONMENT, vol. 1, 333-346; NURAY, A., (1997), *Turkish laws related with coastal zones and their implementations*. In: PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON WATER PROBLEMS IN THE MEDITERRANEAN COUNTRIES. NICOSIA (NORTH CYPRUS), 17-21 November 1997, pending publication.

of their domestic laws concerning the environmental protection of the Black Sea region.

4. CONCLUSIONS

From time to time, Black Sea States have expressed their concern about the state of the marine environment in the Black Sea region and their political wish to protect and rehabilitate it. But these occasional expressions of good faith on the need to protect the marine and coastal environment of the Black Sea region have scarcely been concretised with the adoption of legal measures at the international, regional and national levels. Therefore it seems that although Black Sea States acknowledge the need and urgency of protecting the marine environment in this particular region, the environmental concern is not one of its main political objectives. It is true that during the last few years many of the Black Sea States have passed general environmental protection acts and that some improvements have been already made. But in general, the situation of the environmental protection of the Black Sea region from a legal perspective cannot be considered satisfactory. There are many international environmental treaties that have not been ratified by all Black Sea States. At the regional level, the Bucharest Convention and its related Protocols remain anchored and frozen in 1992: they have not been updated and strengthened; no new additional protocol has been adopted; and no measures to implement the Bucharest Convention or its related Protocols have been approved. At the national level, there are many legal loopholes and, in general, there is a strong lack of sectoral laws and administrative regulations defining environmental quality criteria and standards. This situation is unsustainable and its result is the progressive deterioration of the marine and coastal environment of the Black Sea region. Many times, the economic constraints or the economic crisis affecting many of Black Sea States are invoked in trying to justify this weak environmental legal system. But the economic situation is more related to the effective implementation of norms than to the adoption of norms. As a first step, Black Sea States should proceed individually and jointly to adopt urgently new environmental norms, procedures and standards in order to update, complete and strengthen the legal system for the environmental protection of this region. As a second step, the time to implement those norms will arrive, and in this phase there is room for technical and economic assistance from the international community. But currently the normative premise is failing and the Black Sea environment cannot wait anymore.