

Strategic Action Plan for the Rehabilitation and Protection of the Black Sea

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Desiring to rehabilitate and protect the Black Sea the Governments of:

**Bulgaria
Georgia
Romania
the Russian Federation
Turkey, and
Ukraine**

Reaffirming their commitment to the rehabilitation and protection of the Black Sea ecosystem and the sustainable development of its resources as expressed, in particular, in the Bucharest Convention and the Odesa Declaration;

Continuing in the spirit of the United Nations Declaration on Environment and Development (Rio Declaration) and Agenda 21;

Appreciating the progress that has been made towards attaining sustainable development in the Black Sea region through, amongst other things, the actions taken within the Black Sea Environmental Programme (BSEP) in support of the implementation of the Bucharest Convention and the Odesa Declaration;

Welcoming the international initiatives undertaken to rehabilitate and protect the waters of the rivers flowing into the Black Sea, in particular, the Danube, Dniro (Dnieper) and Don;

Welcoming also, the national initiatives taken to ratify or accede to international conventions relevant to attaining the rehabilitation and protection of the Black Sea ;

Noting the work undertaken towards the adoption of the Convention for Fisheries and Conservation of Living Resources of the Black Sea;

Conscious of the importance of the initiatives taken by non-governmental organisations towards attaining the rehabilitation and protection of the Black Sea;

Nevertheless remain concerned about the state of the Black Sea ecosystem and the limited recovery of its resources;

Convinced of the pressing need to take further concrete actions, individually and collectively, at national and regional levels in order to ensure the rehabilitation and protection of the Black Sea ecosystem and the sustainable use of its resources;

Recalling that the preparation of a strategic action plan was called for in Resolution 3, adopted at the Diplomatic Conference on the Protection of the Black Sea, Bucharest, April 21-22, 1992 and in the Final Act of the Ministerial Meeting on the Declaration on the Protection of the Black Sea, Odesa, April 6-7,1993;

Decide to agree on the following principles, policies and actions:

I. The Challenge: The State of the Black Sea Environment

The state of the Black Sea environment continues to be a matter of concern due to the ongoing degradation of its ecosystem and the unsustainable use of its natural resources. The Transboundary Diagnostic Analysis (TDA), which is a technical annex to this Strategic Action Plan, leads to the following conclusions.

1. The Black Sea ecosystem continues to be threatened by **inputs of certain pollutants, notably nutrients**. Nutrients enter the Black Sea from land based sources, and in particular through rivers. The Danube river accounts for well over half of the nutrient input to the Black Sea. **Eutrophication** is a phenomenon which occurs over wide areas of the Black Sea and should be of concern to the countries of the Black Sea basin.
2. **Inputs of insufficiently treated sewage** result in the presence of microbiological contaminants, which constitute a **threat to public health** and in some cases pose a **barrier to the development of sustainable tourism and aquaculture**.
3. In addition, **inputs of other harmful substances, and especially oil**, continue to **threaten the Black Sea ecosystem**. Oil enters the environment as a result of accidental and operational discharges from vessels, as well as through land based sources. Almost half of the inputs of oil from land based activities are brought to the Black Sea via the Danube river.
4. Moreover, the past **introduction of exotic species**, through the deballasting of vessels, has **seriously damaged the Black Sea ecosystem** and constitutes a threat to the adjacent Mediterranean and Caspian Seas.
5. **Inadequate resources management** and, in particular, inadequate policies with respect to fisheries and coastal zone management continue to **impede the sustainable development** of the Black Sea region. Most fish stocks in the Black Sea, already stressed as a consequence of pollution, have been over exploited or are threatened by over exploitation; many coastal areas have deteriorated as a result of erosion and uncontrolled urban and industrial development, including the resultant construction activities. Consequently, there is a **serious risk of losing valuable habitats and landscape and ultimately, the biological diversity and productivity of the Black Sea ecosystem**.
6. The above considerations led to suggestions that the process of degradation of the Black Sea is irreversible. However, environmental monitoring, conducted over the past 4-5 years, reflects perceptible and continued improvements in the state of, some localised components of the Black Sea ecosystem. These improvements appear to be the indirect result of reduced economic activity in the region, and to a certain degree of protective measures taken by governments. **The challenge which the region now faces is to secure a healthy Black Sea environment at a time when economic recovery and further development are also being pursued.**
7. This Strategic Action Plan is a step in the process towards attaining sustainable development in the Black Sea region. Its overall aims are **to enable the population of the Black Sea region to enjoy a healthy living environment in both urban and rural areas, and to attain a biologically diverse Black Sea ecosystem with viable natural populations of higher organisms, including marine mammals and sturgeons, and which will support livelihoods based on sustainable activities such as fishing, aquaculture and tourism in all Black Sea countries.**

II. The Basis for Cooperative Action

Principles

8. The **concept of sustainable development** shall be applied, by virtue of which the carrying capacity of the Black Sea ecosystem is not exceeded nor the interests of future generations prejudiced.
9. The **precautionary principle** shall be applied, by virtue of which preventative measures are to be taken when there are reasonable grounds for concern that an activity may increase the risk of presenting 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 causal relationship between the activity and the effects and by virtue of which greater caution is required when information is uncertain, unreliable or inadequate.
10. **Anticipatory actions**, such as contingency planning, environmental impact assessment and strategic environmental assessment (involving the assessment of the environmental consequences of governmental policies, programmes and plans), shall be taken.
11. The **use of clean technologies** shall be stimulated, which require the replacement or phasing-out of high waste and waste generating technologies that remain in use.
12. The **use of economic instruments** that foster sustainable development shall be promoted through, amongst other things, the implementation of economic incentives for introducing environmentally friendly technologies and activities; the phasing-out of subsidies which encourage the continuation of non-environmentally friendly technologies and activities; the introduction of user fees and the polluter pays principle; as well as the application of natural resources and environmental accounting.
13. **Environmental and health** considerations shall be included into all relevant policies and sectoral plans, such as those concerning tourism, urban planning, agriculture, industrial development, fisheries and aquaculture.
14. Pending the resolution of ocean boundary matters in the region, **close cooperation among Black Sea coastal states**, in adopting interim arrangements which facilitate the rehabilitation of and protection of the Black Sea ecosystem and the sustainable management of its resources shall be pursued.
15. **Cooperation among all Black Sea basin states**, and, in particular, between the Black Sea coastal states and the states of the Danube river basin, shall be promoted.
16. The involvement of **stakeholders** in the implementation of this Strategic Action Plan, through, amongst other things, the determination of user and property rights shall be promoted.
17. **Transparency and public participation**, shall be fostered through the wide dissemination of information on the work undertaken to rehabilitate and protect the Black Sea and through the recognition and the exercise of the right of participation of the public, including stakeholders, in the decision making and implementation of this Strategic Action Plan.

The Istanbul Commission

18. In order to implement the actions and policies agreed on, it is imperative that the regional mechanisms for cooperation among Black Sea states be strengthened.
19. The Istanbul Commission and its subsidiary bodies, including its Secretariat, should be fully functioning, in accordance with the Bucharest Convention, by January 1997. In order to achieve this, Black Sea states agree to make available the necessary financial and other resources.
20. The Istanbul Commission having agreed to implement this Strategic Action Plan at its second session, held in Istanbul on September 16-17, 1996, is invited to establish, by November 1997, a body to provide support for specific projects and processes related to the implementation of this Strategic Action Plan.
21. It is recommended that, by January 1997, the Istanbul Commission establish, on the basis of the current structure of BSEP Working Parties, subsidiary bodies which can assist it in the implementation of the Strategic Action Plan.
22. It is recommended that the Istanbul Commission initially establish the following Advisory Groups as its subsidiary bodies, the description and general terms of reference of which are given in Annex I:
 - a) an Advisory Group on the Environmental and Safety Aspects of Shipping, coordinated by the Activity Centre in Varna, Bulgaria;
 - b) an Advisory Group on Pollution Monitoring and Assessment, coordinated by the Activity Centre in Odesa, Ukraine;
 - c) an Advisory Group on Control of Pollution from Land Based Sources, coordinated by the Activity Centre in Istanbul, Turkey;
 - d) an Advisory Group on the Development of Common Methodologies for Integrated Coastal Zone Management, coordinated by the Activity Centre in Krasnodar, Russia;
 - e) an Advisory Group on the Conservation of Biological Diversity, coordinated by the Activity Centre in Batumi, Georgia;
 - f) an Advisory Group on Fisheries and other Marine Living Resources, coordinated by the Activity Centre in Constanta, Romania; and
 - g) an Advisory Group on Information and Data Exchange, coordinated by the Commission Secretariat.
23. It is recommended that the Istanbul Commission regularly review the status and functions of the Advisory Groups and consider the establishment of ad hoc groups for the purposes of implementing this Strategic Action Plan.
24. It is recommended that the Istanbul Commission assume the responsibilities from the Black BSEP-PCU for the operation and maintenance of the electronic communication system which has been established for purposes of facilitating communication between the components of the Black Sea institutional network.
25. In order to strengthen and coordinate the work of national and regional research institutions, it is recommended that the Istanbul Commission assume the responsibilities from the BSEP-PCU for the clearing house mechanism for the exchange of information on bibliography, data sources and research programmes. In addition, it is recommended that the Istanbul Commission organise bi-annual research conferences on topics related to the goals of this Strategic Action Plan. The first of such conferences will be held in June 1998.

Wider Cooperation

26. Black Sea countries shall individually and jointly encourage the following:
- a) Enhanced coordination between the regional bodies which contribute towards the rehabilitation and protection of the Black Sea ecosystem and the sustainable development of Black Sea resources, such bodies include the Istanbul Commission and its subsidiary bodies, the Black Sea Economic Cooperation (BSEC), the Parliamentary Assembly for the Black Sea Economic Cooperation (PABSEC), the future Black Sea Fisheries Commission, and the NGO Forum;
 - b) Close cooperation between the regional governmental bodies and the NGO Forum through transparency of the negotiating process, widespread availability of information and documents, and, where appropriate, open access to meetings;
 - c) Close coordination of the activities of donors, including multilateral financial institutions, the European Union, bilateral aid agencies and private foundations, in their aim to secure funding for projects and policies identified in this Strategic Action Plan and to be further developed in the National Black Sea Strategic Action Plans.
 - d) Close cooperation with relevant international organisations, including UN Agencies and international non-governmental organisations in implementing this Strategic Action Plan.
27. International agreements relevant to the aims and objectives of this Strategic Action Plan should be implemented by each Black Sea state and, where this is appropriate and has not yet been done, it is recommended that Black Sea states consider ratifying or acceding to such agreements. Consideration should also be given to implementing other relevant international instruments.

III. Policy Actions

28. Taking into consideration the need to fully implement the Bucharest Convention and the Odesa Declaration, the findings of the assessment of implementation of the Odesa Declaration and the Transboundary Diagnostic Analysis (TDA), the following policy actions shall be implemented.

A. Reduction of Pollution

Land based sources of pollution

Rivers

29. A Black Sea Basin Wide Strategy, negotiated with all states located in the Black Sea Basin, should be developed to address the eutrophication problem in the Black Sea. The objective of the Strategy should be to negotiate a progressive series of stepwise reductions of nutrient loads, until agreed Black Sea water quality objectives are met. Such a Basin Wide Strategy may also be required to ensure the reduction of inputs of other pollutants into the Black Sea, in particular oil.

30. Given that the Danube is the largest single source of nutrient inputs into the Black Sea, it is imperative that strategies for the reduction of nutrients be adopted for this river. The provisions in the Danube Strategic Action Plan (maintenance of 1995 levels) clearly are insufficient for addressing the eutrophication problem in the Black Sea.

Airborne pollution

31. More attention should be focussed on the issue of airborne pollutants, particularly those that involve transboundary movements, as well as appropriate measures for controlling them at source. In initial assessment of the magnitude of this problem should be undertaken by 1999.

High priority point-sources

32. A list of high priority sites (hot-spots) for reducing discharges of pollutants has been developed. It will provide the basis for the elaboration of national strategies and timetables for realising substantial reductions of inputs of pollutants from hot-spots, in accordance with agreed water quality objectives. The following procedure has been agreed for the purpose of attaining these reduced inputs by 2006. Each Black Sea coastal state, in its National Black Sea Strategic Action Plan, will specify the strategies and timetables for attaining reduced inputs from the hot-spots located in its territory. In those cases where investments (as opposed to policy changes or economic restructuring) are required, in order to address specific hot-spots, pre-investment and investment studies will be pursued, with donor support where possible.
33. National reports on the progress made in addressing the identified hot-spots will be presented to the Istanbul Commission and widely disseminated, in 2000 and 2005. It is recommended that the Istanbul Commission prepare a consolidated report on this topic in time for the Ministerial meetings in 2001 and 2006. This report should include an assessment of the progress made on the strategy for each site. If the progress made is found to be insufficient to meet the agreed water quality objectives, further steps to reduce inputs will be decided upon at the Ministerial meetings.

Regulation of point sources

34. In addition to the high priority point-sources, comprehensive national studies on the discharges of insufficiently treated sewage will be prepared by each Black Sea state by January 2000. It is recommended that this activity be coordinated by the Istanbul Commission, through its Advisory Group on the Control of Pollution from Land-Based sources. These studies should analyse the national and regional benefits to public health, the environment and recreation as well as the economic costs of installing sewage treatment plants. The studies shall serve as a basis for taking decisions and implementing significant reductions of the inputs of insufficiently treated sewage from large urban areas by 2006.
35. In order to implement the Protocol on Land Based Sources to the Bucharest Convention and with a view to the gradual reduction of inputs of pollutants in general and the elimination of discharges of persistent pollutants of global significance (POPs) the following actions shall be taken.
 - a) Water quality objectives shall be harmonised on the basis of the uses of water (drinking water, bathing water, aquaculture, ports etc.). It is advised that the Istanbul Commission, upon the recommendations of its Advisory

Group on Pollution Monitoring and Assessment, adopt such harmonised water quality objectives and where necessary standards by mid-1998. Furthermore, these objectives should be subjected to a comprehensive review every five years.

- b) Procedures used for monitoring the actual discharge of effluent at point sources shall be harmonised. It is advised that the Istanbul Commission, upon the recommendations of its Advisory Group on the Control of Pollution from Land Based Sources, adopt such procedures by mid-1998.
- c) Each Black Sea state shall endeavour to adopt and implement, in accordance with its own legal system, by 1999, the laws and mechanisms required for regulating discharges from point sources. The basis for regulating discharges will be a licensing system, through which the harmonised water quality objectives can be applied, and through which effluent charges, based on the polluter pays principle, can be levied.
- d) Each Black Sea state will also endeavour to adopt and implement, in accordance with its own legal system, efficient enforcement mechanisms by 1999.
- e) In order to secure the implementation of the actions agreed to in this paragraph, each Black Sea state shall ensure that the national agencies responsible for licensing, monitoring and enforcement are adequately staffed and that the necessary resources are available to them. Where necessary, training courses at local agencies, will be organised.
- f) Each Black Sea state will consider the introduction of policies in which polluters are made to pay for compliance. The application of environmentally friendly production processes or other innovative process which reduce inputs of pollutants may also be encouraged through economic incentives.

Vessel source pollution

- 36. MARPOL 1973/78 shall be more effectively implemented by Black Sea states, especially with a view to giving effect to its provisions on Special Areas, by 2002.
- 37. 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
- 38. A harmonised system of port state control will be established in the Black Sea region through the adoption of a Memorandum of Understanding on Port State Control. It is advised that the Istanbul Commission adopt such a Memorandum, upon the recommendations of the Advisory Group on Environmental and Safety Aspects of Shipping, by December 1998.
- 39. Black Sea states shall take the necessary steps to enable them to fully exercise their prescriptive and enforcement powers, in accordance with international law, in order to pursue the reduction of illegal discharges by vessels into the Black Sea.

40. A harmonised system of enforcement, including fines, will be developed for the Black Sea region. It is advised that the Istanbul Commission, upon the recommendations of the Advisory Group on the Environmental and Safety Aspects of Shipping, adopt such a system by December 1998. The primary aim of this system will be to serve as a deterrent for illegal discharges and, where necessary, to exercise enforcement action against illegal dischargers.
41. 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.

Pollution from dumping

42. A total ban on the disposal of municipal garbage in marine, shoreline and estuarine areas shall be imposed by December 1996. Each Black Sea state shall develop a plan setting out the manner in which comprehensive enforcement of the ban will be attained by December 1999.
43. Illegal dumping operations in the Black Sea are a matter of concern. Black Sea states, individually and jointly, shall take measures to control any dumping activities that may take place.
44. Black Sea states, through the Istanbul Commission and in accordance with article 3 of the Protocol on Dumping to the Bucharest Convention, shall define concentration levels for trace contaminants in dredged spoils, by February 1998.
45. Black Sea states shall consider amending the Protocol on Dumping to the Bucharest Convention, in accordance with the London Convention 1972, including its subsequent amendments.

Waste management

46. The Black Sea coastal states will cooperate in developing and implementing environmentally sound waste management policies, giving due consideration to waste minimization, recycling and reuse.

Transboundary movement of hazardous wastes

47. Without further delay, Black Sea states, through the Istanbul Commission, and in accordance with Resolution 1, adopted at the Diplomatic Conference on the Protection of the Black Sea Against Pollution, shall complete and adopt the text of a Protocol to the Bucharest Convention concerning the transboundary movement of hazardous wastes and cooperation in combating illegal traffic thereof.

Contingency planning and emergency response

48. A Black Sea Strategy for contingency planning and emergency response shall be developed. It is recommended that the Istanbul Commission, upon the recommendation of its Advisory Group on the Environmental and Safety Aspects of Shipping, adopt such a Strategy, by December 1997. This Strategy should provide a basis for ensuring that the contingency plans developed within Black Sea states are

sufficiently coordinated. It will also serve as a basis for the development of the regional contingency plan.

49. National and local contingency plans, covering both vessels and offshore installations, shall be improved and, where appropriate, adopted, by December 1998. The responsibilities and obligations of governmental agencies in the event of marine emergencies shall be clearly defined. National contingency plans shall be developed in accordance with IMO guidelines, as well as other relevant international instruments, including the Black Sea Strategy for contingency planning and emergency response.
50. A Black Sea Contingency Plan shall be adopted. It is recommended that the Istanbul Commission, upon the recommendations of its Advisory Group on the Environmental and Safety Aspect of Shipping, adopt such a plan by December 2000. The Black Sea Contingency Plan should address the compatibility of: emergency equipment, reporting forms and oil spill data; classification of the scale of spillage's; methods for evaluating the sensitivity of the coast to hazards; and spill decision support systems, including models for forecasting oil movements. In addition, regionally coordinated national classification and risk assessment systems shall be developed.
51. In order to ensure rapid and effective action by national emergency response agencies, each Black Sea state, in cooperation with the private sector and, where appropriate, with international and bilateral agencies, shall ensure that their own national agencies are adequately staffed and that the necessary resources are available to them.
52. Close cooperation shall be sought with the shipping, oil and gas sectors in order to ensure that, to the extent possible, the cost of developing and implementing contingency plans are born by these sectors.

Assessment and monitoring of pollutants

53. A "State of Pollution of the Black Sea" report will be prepared and published every five years, beginning in 1996. It will be based on the data collected through the coordinated pollution monitoring and assessment programmes.
54. A Black Sea Monitoring System, based upon biological effects measurements and measurements of key contaminants, will be established in compliance with the Bucharest Convention. It will consist of the integration of obligatory national monitoring programmes, to be included in the National Strategic Action Plans, and an independent quality assurance system. It is advised that the Istanbul Commission develop such a quality assurance system through its Advisory Group on Pollution Monitoring and Assessment, by 1998.
55. A uniform measurement technique for bathing water quality with a common quality assurance support mechanism shall be developed. It is advised that the Istanbul Commission, upon the recommendations of its Advisory Group on Pollution Monitoring and Assessment, develop this uniform measurement technique by December 1997. Transparency shall be encouraged through the publication and free exchange of data from bathing water quality measurements on at least an annual basis.
56. Data regarding actual and assessed contaminant discharge measurements for point sources, rivers, and, where possible, diffuse sources, shall be compiled and freely

exchanged every five years, beginning in 1996. It is advised that the Advisory Group Control of Pollution from Land Based Sources make these compilations in future.

B. Living resources management

Commercially exploited resources

57. Fish are an integral part of the marine ecosystem, fish stocks thrive in a non-polluted and protected ecosystem and the marine ecosystem profits from properly managed fishing activities. The measures to reduce pollution and to protect biological diversity, habitat and landscape, as agreed upon in this Strategic Action Plan, are therefore pre-conditions for the restoration of commercial fisheries in the Black Sea. In addition, spawning and nursery grounds require special protection.
58. In order to rehabilitate ecosystems, which are of particular importance to Black Sea fisheries as a whole, Phyllophora fields and other critical nursery areas will receive special protection, spawning areas of anadromous species will be restored, and coastal lagoons will be rehabilitated. By 2000, each Black Sea state will develop at least one pilot project which will contribute to the restoration of areas vital to the recovery of Black Sea fish stocks.
59. In order to rehabilitate the Black Sea ecosystem and achieve sustainable fisheries in the Black Sea, fisheries management policies need to be enhanced and fishing effort needs to be adjusted to the status of the stocks. In this regard, the Black Sea coastal states are expected to expedite the adoption of the Fisheries Convention as soon as possible so as to develop a fisheries management system which consists of the following components: regular regionally coordinated stock assessments; national fishing authorisations for all Black Sea fishing vessels; a regional licensing system; and a quota system. In addition, enforcement of fisheries regulations urgently needs to be improved. These measures and others, which are required to attain more sustainable fisheries in the Black Sea, should be taken in close cooperation with the fishing sector.

Biological diversity protection

60. The text of a Protocol on Biological Diversity and Landscape Protection to the Bucharest Convention shall be developed and adopted. It is advised that the Istanbul Commission adopt this Protocol by 2000, upon the recommendations of the Advisory Group on the Conservation of Biological Diversity. The aim is to present the Protocol to the 2001 Ministerial Meeting for signature, after which governments can initiate the national ratification process.
61. A regional Black Sea Red Data Book, identifying and describing endangered species, will be prepared and published by December 1998. It is advised that the work on the Red Data Book be coordinated by the Istanbul Commission, through its Advisory Group on the Conservation of Biological Diversity.
62. With the aim of restoring populations of marine mammals the following measures shall be taken:
 - a) A ban on the hunting of marine mammals will be enforced by all Black Sea states with immediate effect.
 - b) Regular population assessments of marine mammals shall be conducted and the first assessment will be completed in 1998. It is advised that these

assessments be coordinated by the Istanbul Commission, through its Advisory Group on the Conservation of Biological Diversity.

- c) The Centre for the Conservation of Biological Diversity in Batumi, Georgia, shall be provided with the necessary equipment in order to function as a regional rehabilitation centre for captive marine mammals.
- d) National centres and sanctuaries for the rehabilitation of marine mammals shall be strengthened.
- e) Consideration shall be given to modify fishing practices in order to avoid catching marine mammals, as by-catch, during normal operations. It is recommended that the Istanbul Commission, through its Advisory Group on the Conservation of Biological Diversity and its Advisory Group on Fisheries and other Marine Living Resources, develop a strategy for the reduction of by-catches of marine mammals.

Protection of Habitat and Landscape

- 63. In addition to the actions referred to in paragraphs 57, 58, and 59 of this Strategic Action Plan, the following measures will also be taken to protect habitats and landscape in the Black Sea region.
- 64. In marine and coastal areas, and in particular in wetlands, new conservation areas shall be designated and the protection of existing conservation areas enhanced. In drafting their National Biological Diversity Strategies, Black Sea states shall take into consideration the integrity of the Black Sea system, by, for example, designating conservation areas which are of regional significance.
- 65. With a view to enhancing the protection of habitats and landscape in the Black Sea region, both national and regional regulatory instruments shall be improved through the following actions.
 - a) A Regional Strategy for Conservation Areas shall be adopted, and it shall be reviewed every five years. It is advised that the Istanbul Commission adopt the plan by mid-1998, and conduct the reviews, upon the recommendations of its Advisory Group on the Conservation of Biological Diversity. The plan, amongst other things, should address the following: priority locations which should be designated as conservation areas; priority locations where current measures for protection should be enhanced; objectives, standards and measures for the protection of conservation areas; and fund raising aspects.
 - b) Each Black Sea state, by 2000, shall endeavour to revise, and where applicable adopt, in accordance with its own legal system, national laws, regulations and planning instruments for the protection of conservation areas. These laws, regulations and planning instruments shall conform with relevant international instruments, including the Regional Strategy for Conservation Areas. The national instruments, amongst other things, should identify the responsible management authority and the responsible government agency; include procedures for the identification of conservation areas; require that management plans be developed for each conservation area; set standards for managing conservation areas; and, where appropriate, establish procedures for public participation and partnerships between governmental agencies and NGO's for the management of conservation areas.
 - c) Each Black Sea state, where appropriate with the support of bilateral or multilateral agencies, shall ensure that the authorities which manage conservation areas are adequately staffed and that the necessary resources are

available to them.

66. Public awareness campaigns, including programs for schools, local communities, and natural resource users in the conservation areas shall be developed. Such campaigns, where appropriate, will be coordinated at the regional level.

C. Sustainable Human Development

Environmental Impact Assessment

67. By 1998, all Black Sea coastal states will adopt criteria for environmental impact assessments and environmental audits that will be compulsory for all public and private projects. The coastal states will cooperate to harmonize these criteria by 1999 and where possible, to introduce strategic environmental assessments.

Integrated coastal zone management

68. In order to ensure proper management of the coastal zone, coordinated integrated coastal zone management strategies shall be developed for the Black Sea region. In order to attain this the following actions will be taken.
 - a) A Regional Black Sea Strategy for integrated coastal zone management shall be developed. It is advised that the Istanbul Commission develop such a strategy by December 1998, upon the recommendations of its Advisory Group on the Development of Common Methodologies for Integrated Coastal Zone Management. The regional strategy should elaborate basic principles and methodologies for land- and water-use planning as well as for designing zoning systems. The methodologies and principles recommended in the regional strategy shall be taken into account when developing or reviewing national strategies and planning instruments for integrated coastal zone management.
 - b) Each Black Sea coastal state shall endeavour to adopt and implement, in accordance with its own legal system, by 1999, the legal and other instruments required to facilitate integrated coastal zone management.
 - c) Inter-sectoral committees for integrated coastal zone management shall be established at the national, regional and local levels of public administration, where appropriate, by the end of 1997. These committees shall design and implement national plans for integrated coastal zone management through participatory approaches.
69. Erosion and land degradation have important environmental and social impacts. Coastal erosion, due to the changed hydraulic conditions in many of the regions rivers, is a problem which has transboundary implications. Deforestation is another major factor contributing to land degradation. A survey of coastal erosion problems in the region will be conducted by 1998. It is recommended that the Istanbul Commission, through its Advisory Group on the Development of Common Methodologies for Integrated Coastal Zone Management coordinate the work on this survey. The survey should address the magnitude of the problem, including its

economic implications; propose remedial actions, and include suggestions for pilot studies and demonstration projects.

Development of sustainable aquaculture and tourism

70. Aquaculture and tourism are two areas considered to have scope for economic growth in the Black Sea and to benefit the region in general. In order to avoid environmental damage resulting from these activities, and particularly damage with transboundary implications, their development shall be managed along common environmental norms to be established by 1999. It is advised that that the Istanbul Commission, with the support of its Advisory Groups, adopt these common norms and liaise, where appropriate, with the Fisheries Commission, once this body has been established, to adopt an industry code of practice.
71. Sustainable aquaculture should be stimulated, amongst other things, through the conduct of feasibility studies. In parallel, legislation enabling the regulation of aquaculture should be developed. Such legislation should ensure that aquaculture itself does not present a threat to the environment and should address issues, such as, the location and density of cages, releases of commercial strains, imports and releases of exotic species, quarantining and matters of hygiene. Moreover, aquaculture projects shall be subjected to environmental impact assessments in which the potential effect of the activity upon biological diversity are given careful consideration.
72. Eco-tourism should be stimulated in the region, amongst other things, through the implementation of concrete pilot projects in Black Sea coastal states. In close cooperation with the tourist industry and the national tourism authorities, environmental codes of conduct and training courses in sustainable tourism will be developed. The tourism industry, both for the benefit of the industry and for the benefit of the environment, needs to be more adequately planned with a view to incorporating concerns such as those related to water supply, sewage treatment bathing water quality, the use of natural resources and resort development into newly developed projects from the beginning. Moreover, it shall be required that tourist development projects be subjected to environmental impact assessments.

Involving the public in environmental decision making

73. Participation of all sectors of society is an essential requirement for the development of sustainable policies in the region. It requires the development of education projects, transparent and participatory decision making procedures and open rules on access to administrative and judicial procedures.
74. Municipalities will be closely involved in the implementation of this Strategic Action Plan. Both existing mechanisms, as the International Black Sea Club of Cities, as well as new mechanisms will be used for this purpose. Black Sea municipalities will also be stimulated to cooperate at the national level and with municipalities in other countries and regions. The Union of Governors of the BSEC will also be requested to cooperate towards the implementation of this Strategic Action Plan.

75. NGOs will continue to be closely involved in the development and implementation of both national and regional policies aimed at rehabilitating and protecting the Black Sea ecosystem and the sustainable use of its natural resources.
76. The Black Sea NGO Forum is encouraged to continue giving its support to the actions taken to rehabilitate and protect the Black Sea and, in particular, to support the implementation of this Strategic Action Plan. It is recommended that the Istanbul Commission adopt procedures which facilitate the participation of the NGO Forum, as an observer, in its meetings.
77. Stakeholders will have to be clearly identified for each of the policy areas included in this Strategic Action Plan. Their involvement in the decision making process will be secured and their responsibilities in implementing this Strategic Action Plan defined, through mechanisms such as those provided by new Regional Environmental Centres.
78. Each Black Sea state, in accordance with its own national legal system, will endeavour to adopt and implement, by 2000, rules which guarantee the right of access to environmental information, which provide for the right of the public and NGOs to participate in decision making, and which provide for the right of individuals and groups to appeal to administrative and judicial organs. It is recommended that the Istanbul Commission prepare a draft position paper on this topic.
79. Information about the actions taken to rehabilitate and protect the Black Sea ecosystem and achieve the sustainable use of its resources will be widely disseminated. Each Black Sea state will publish a popularised version of this Strategic Action Plan, in its own language. In addition, the following actions will be taken through the BSEP, in close cooperation with the NGO Forum:
 - a) An educational information package for use in schools will be developed and each Black Sea state will translate it into its own language;
 - b) A mobile exhibition will be prepared and translated into the languages of the Black Sea states for display at public functions and educational establishments;
 - c) A user-friendly Black Sea CD ROM multimedia information package, based upon the existing GIS system, will be developed.
80. Based on harmonised criteria, information on the state of bathing water suitable for advising the public on the potential risks to their health shall be made widely available to the public during the active tourist season, starting in 1998. Frequency of sampling and analytical methodology should be sufficient to inform bathers of conditions which may pose health risks. Additionally, a colour coding system for bathing water quality maps shall be developed and such maps shall be published annually starting January in 1999.

IV. National Black Sea Strategic Action Plans

81. Each Black Sea coastal state shall prepare, by October 1997, a National Black Sea Strategic Action Plan or other corresponding document, which shall present detailed plans for the national implementation of this Strategic Action Plan. These shall include details of specific projects where possible.

V. Financing the Strategic Action Plan

82. Funding for the actions agreed upon in this Strategic Action Plan may be secured from domestic, regional or international sources, through general public funding or through the application of specific economic instruments, as well as through grants and loans. Specific projects for international funding should be prepared for bilateral or multilateral funding. **Donor Conferences**, for assisting in this process, shall be held on a five yearly basis, starting in 1997.
83. Specific funding arrangements for the national policies and measures agreed on in this Strategic Action Plan shall be presented in the **National Black Sea Strategic Action Plans** to be adopted by each of the Black Sea State.
84. The feasibility of a **Black Sea Environmental Fund** shall be fully evaluated with a view to its establishment by the year 2000. The main source of finance for the Fund shall be a set of economic instruments adopted at the national level. Additional funding could be sought from the international community, including multilateral and bilateral donor organisations, international financial institutions and private sector sources. The Fund may be used to finance the work of the Istanbul Commission; the development of project proposals for submission to potential funding sources; and specific projects which support the priorities set in this Strategic Action Plan or as decided on by the Istanbul Commission.

VI. Arrangements for Future Cooperation

85. Given the assessment of implementation of the Odesa Declaration, which recommends that Ministerial meetings be held every five, instead of every three years, the following arrangements have been agreed.
86. It is advised that the Secretariat of the Istanbul Commission annually report to the Commission on the progress made in implementing this Strategic Action Plan. The report should also contain recommendations for enhancing implementation and adjustment of this Strategic Action Plan, taking into account the Bucharest Convention and the Odesa Declaration. The Istanbul Commission should consider the report and decide on any enhancements and/or adjustments which may be necessary to secure implementation of this Strategic Action Plan.
87. It is advised that a comprehensive report, assessing the implementation of this Strategic Action Plan, be prepared by the Istanbul Commission, upon the recommendations of its subsidiary bodies, and presented to the Governments of the Black Sea states and to the general public every five years. The report should also contain recommendations for enhancing implementation of the Strategic Action Plan as well as recommendations for its amendment, with a view to adopting any further actions which may be required to secure the rehabilitation and protection of the Black Sea.
88. Ministers responsible for the rehabilitation and protection the Black Sea states will meet every five years with the objective of evaluating the progress made in implementing this Strategic Action Plan and adopting any additional actions that may be required to attain its overall aims.

ANNEX I

Recommendation to the Commission

Advisory Groups and Activity Centres Associated with the Black Strategic Action Plan (BS-SAP)

The purpose of the **advisory groups** is to provide the Commission with the best possible advice and information on topics which are key to the implementation of this Black Sea Strategic Action Plan and the Bucharest Convention. In all cases, they will, as part of their duties, respond to requests for advice from the Commission and prepare proposals for the Commission's consideration at their own initiative. The groups will include experts from focal points from all Black Sea states. The Advisory Groups will work closely with other experts, bodies and institutions as they, or the Commission, deem necessary. Involvement of relevant NGOs is also encouraged, particularly in the improvement of public participation and awareness in all of the focal areas covered by the Groups. Particular attention shall also be given to including experts in the following areas, where appropriate:

- environmental law,
- environmental economics, and
- public awareness.

Each advisory group shall seek to make **best use of expertise and institutional capacity** within the region and, within its workplan, approved on an annual basis by the Commission, may assign specific tasks to any institution or expert that it considers appropriate.

The Commission Secretariat will provide general coordination for the advisory groups, assigning this task to appropriate **Officers of the Secretariat**, according to their technical specialization.

The Advisory Groups shall be supported by **Activity Centres** which shall coordinate the necessary programmatic support and the provision of practical technical support for their work. The Activity Centres shall be initially based upon those created through BSEP as in-kind contributions by Black Sea Governments with additional finance from donors where possible and necessary.

Advisory Groups shall liaise together where appropriate and **joint groups** may be set up from time-to-time, particularly on such issues as pollution assessment, fisheries development and environmental impact assessment, amongst others.

The Advisory Groups are defined as follows:

1. *Advisory Group on the Environmental and Safety Aspects of Shipping coordinated by the Activity Centre in Varna, Bulgaria.*

The Group will coordinate the regional approach to emergency response, particularly the international response to accidents involving the extraction, maritime transport, handling and storage of oil and, where relevant, hazardous chemicals. It will also coordinate, on behalf of the Commission, regional aspects of implementation of the MARPOL Convention defined in the BS-SAP. Furthermore, it will assist with the elaboration of port-state-control procedures defined in the BS-SAP. Particular attention will be paid to developing a strong working relationship between Ministers of Environment and Transport both internationally and within corresponding national focal points. It will collaborate closely with all relevant institutions and governmental bodies, international organizations (such as IMO, WMO, IOC) and the private sector (shipping, oil and gas industries).

2. *Advisory Group on Pollution Monitoring and Assessment coordinated by the Activity Centre in Odesa, Ukraine*

The work of this Group shall focus upon the establishment of a regionally coordinated network of National Status and Trends monitoring programmes and the subsequent development of Environmental Quality Objectives. Specifically, the Group shall provide the following services: (1) Quality Assurance/Quality Control services for environmental chemical analysis (2) Coordination of pilot monitoring activities (3) Coordination of regional training exercises in monitoring (4) coordination of regional multi-disciplinary expert consultations to develop common environmental objectives and standards for different water uses in the Black Sea. The Group shall collaborate closely with the Advisory Group on Fisheries and other Living Marine Resources for the development of a region-wide programme for monitoring the biological effects of pollution to be incorporated in the regional monitoring strategy. The Group shall collaborate with National Monitoring Networks and research institutions in all Black Sea countries, international research programmes and projects and bodies such as IAEA's Marine Environmental Laboratory, IOC's Expert Groups, UNEP, WHO and WMO.

3. *Advisory Group on Control of Pollution from Land Based Sources coordinated by the Activity Centre in Istanbul, Turkey*

The Group will provide technical support for actions related to the assessment and control of discharges of pollution from land-based sources (direct discharges, river inputs and diffuse sources, including atmospheric deposition). It will cover the following areas: (1) the development and diffusion of improved methodology for measuring discharges of pollutants; (2) the gathering of data from National Focal Points regarding discharges; (3) the coordination of activities to improve permitting procedures; (4) the development/harmonization of pollution discharge models and scenarios in order to assist with the establishment of scientific criteria for setting permit levels/emission standards; and (5) the coordination, in close cooperation with WHO, of programmes to monitor the quality of bathing waters and beaches and to assess the human health implications of the information gathered.

The major partners of the Group shall be regional inspectorates of pollution (or their equivalent) and, at an international level, the Secretariat of the Global Programme of Action for Protection of the Marine Environment from Land-based Activities.

4. *Advisory Group on the Development of Common Methodologies for Integrated Coastal Zone Management coordinated by the Activity Centre in Krasnodar, Russia*

The Group will facilitate the exchange of information and experience on ensuring sustainable resource use, including recreational use by tourists in the coastal zones of Black Sea countries, and develop methodologies for coastal zone management, with particular reference to threats to the environment arising from the transition to market economies. The Group will coordinate and supervise the elaboration of draft recommendations of the Commission in the field of integrated coastal zone management and, based on common methodology, assist with the introduction of contemporary principles of environmental management, such as "Best Available Technology" and "Best Environmental Practices". On the basis of the agreed common principles and the achievements and experience gained in the Black Sea countries, the Group will coordinate the preparation of Regional Integrated Coastal Zone Management Programme as well as to provide assistance for the preparation of national programmes. This Group will work in very close cooperation with the OECD and any other appropriate international institutions.

5. Advisory Group on the Conservation of Biological Diversity coordinated by the Activity Centre in Batumi, Georgia

The Group will provide coordination and technical support for actions taken to protect biological diversity in the Black Sea according to the provisions of the Odesa Declaration, Black Sea Strategic Action Plan, the UN Convention on Biological Diversity and the Pan-European Strategy on Landscape and Biological Diversity. The Group will prepare inventories of the biodiversity and regularly update them, in order to evaluate the trends and recommend remedial actions. It will also gather historical records of changes in biological diversity (a large amount of information is available for the Black Sea). The Group will elaborate a Regional Biological Diversity Conservation Strategy as well as Draft Biological Diversity and Landscape Protection Protocol to the Convention on the Protection of the Black Sea Against Pollution. The Group will coordinate the preparation of a Red Data Book on the endangered species.

6. Advisory Group on Fisheries and other Marine Living Resources coordinated by the Activity Centre in Constanta, Romania

The Advisory Group will basically function to coordinate activities and provide technical support for the protection and restoration of marine ecosystems. However, pending the adoption of the Fisheries Convention, the Advisory Group will gather the basic source of information related to the fisheries capture, stock, installed capacity and aquaculture projects. The data will be gathered from all national authorities and should include historical records in order to document past changes in the production and stock in the region and its relationship to changes in marine ecosystems. It will provide the basic source of information for future management strategies and for the implementation of the future Fisheries Convention. The Group will develop proposals and, where appropriate, coordinate the following: (1) harmonization at the regional level of a legal and institutional framework aimed at sustainable use of living marine resources; (2) improvement of Black Sea fisheries resource assessment based on a regional approach; (3) development of projects for the protection and rehabilitation of living resources; (4) development of specific projects for aquaculture techniques which do not harm biological diversity. The Group will collaborate with regional and international institutions (such as GFCM) governmental bodies and the private sector.

7. Advisory Group on Information and Data Exchange to be coordinated by the Commission Secretariat

This Group shall focus its work on the improvement of information flow and data exchange. It will be responsible for the following specific tasks: (1) Updating of the existing Black Sea Information System and Black Sea Geographical Information System, (2) Updating of the Black Sea Bibliography, (3) Strengthening of the e-mail network and improvement of Internet connection to the Web Server services for principle data centres and Ministries of Environment for the exchange of information and data, including exchange of meta data, (4) Development of the regional Internet facility comprising meta level information on environmental data (how to locate the data), sets of the new data obtained from various international programmes, including those of the Commission, copies of historical data opened for public use, data sets from main World data centres such as WDC, GRID and others, (6) Cooperation and data exchange with different international programmes in the Black Sea region (such as NATO-TU, EROS-21, CoMSBlack, etc.), (7) Cooperation and data exchange with the NGO Network, (8) Organization of training on data exchange, and (9) Assistance to other networks in the region.