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THE TWENTY FIFTH PLENARY SESSION OF THE PABSEC
GENERAL ASSEMBLY

**Meeting of the Economic, Commercial, Technological and
Environmental Affairs Committee**

REPORT*

**“Economic aspects of resolving environmental problems
in the Black Sea countries”**

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I. Introduction

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1. In the 21st century environmental security is to be considered as an integral part of human welfare and well-being. Globalisation processes have entailed many problems related to environmental protection. The region embracing the PABSEC countries also undergoes complex process of political and economic development. Against the background of disintegrating former political and economic systems social, philosophical and ethical values have also started to undergo certain changes. Such a tendency puts an impact upon the policies concerning ecological protection in the region.

2. The PABSEC is aware of the fact that environmental protection policies in the region comes across many different problems and emphasises the need for further strengthening and improvement of every possible mechanisms that will assist in resolving these problems within the concept of the sustainable development.

3. The Assembly has always been attributing emphasis to the issue of environmental protection. The PABSEC debated on ecological problem in 1994 at the General Assembly in Tirana and adopted the Report and Recommendation 5/1994 on "Black Sea Environmental Health". In 2001 at the General Assembly in Baku the Assembly adopted the Report on "The Black Sea Environmental Health: New Challenges" and subsequent Recommendation 49/2001. These documents outline the basic strategy of the Assembly on this issue.

4. The present Report is based on the documents from the Commission on the Protection of the Black Sea against Pollution, competent NGOs, scientific researches and relevant Internet sites. The Rapporteur is also grateful to the national delegations of Armenia, Bulgaria, Romania and Ukraine for providing necessary information.

II. Sources of environmental pollution and their consequences

5. Deterioration of ecological system in the region is affected by two integral causes: a) irrational management of natural resources; b) pollution by manmade wastes.

6. According to the scientific estimates the Black Sea region annually loses 1 million hectares of fertile soil as a result of irrational land tenure. Therefore, at present thousands of hectares of fertile land are left out of agricultural activities remaining uncultivated.

7. Excessive cattle-breeding directly affecting the Black Sea countries, is to be taken into account as a main reason of the soil degradation. Deforestation as well as agricultural activities (salinity in irrigative farming) play important role in this respect.

8. Pollution from wastes produced by industrial and non-industrial human activity is another reason for the deterioration of environmental system adjacent to the Black Sea. Quantification of such wastes is difficult to estimate. Practically wastes are to be divided into solid, liquid and gaseous but calculations and estimations for each component are still inaccurate. We have to admit that at present only 5-10% of extractive and derivable raw materials transform into the final product while the remaining 90-95% turns into direct processing waste. Industrial and mining industrial substances prevail in the structure of solids wastes. These fractions are rather high in Turkey and Russia if estimated per capita.

9. When considering the aspects of environmental pollution of the Black Sea itself one may consider determining it through pollution parameters of the rivers discharging into it. The Danube, for example, discharges into the sea chrome, copper, nickel, mercury, lead, zinc and hydrocarbons. At the same time, discharging of toxic substances like cyanide poses direct threat to the human health as well as to the fauna of the shelf and shelf margin regions of the sea.

10. The rivers also discharge high level of nitrogen and phosphorous compounds with detrimental effect upon plants finally resulting in eutrophication and loss of bio-diversity.

11. The amount of both chemicals flowing through the rivers into the sea increased drastically in the period between 1980 and 2000. From 1970 till 1990 total dissolved nitrogen concentrations increased by 250% in the Danube, by 750% in the Dniester, and by 160% in the Dnepr rivers. Moreover, total dissolved phosphorus concentrations increased by 380% in the Danube, by 710% in Dniester, and by 510% in the Dnepr rivers in the period between 1980 and 2000. These increases have trans-boundary effects leading to decreases in fish varieties and destruction of breeding areas for some species.

12. The population of fish is decreasing significantly from both contamination and over-fishing. Likewise, every tenth bird species, every fifth plant or mammal species, and every fourth amphibian and reptile species in the region is endangered.

13. Organic substances like phenols and pesticides found in the Black Sea basin due to their toxicity pose direct risk to the human health and the well being of the sea. Most are lipophilic and hence they accumulate over time in the fatty tissues of the body with the possibility of initiating cancer. They are transferred into the body through the food-chain like fish and other marine species or via the consumption of contaminated water.

14. Spilled oil and lubricants pose threat to every form of life. The disastrous effect of oil and lubricants are spread through the food-chain. Seafowl dies every year as a result of chronic oil-fouling. The consequences are also extremely dramatic for the fish population. Oil blocks the respiratory system of sea

creatures preventing absorption of oxygen. Oil polluted beaches remain unclear for many years. This is a problem especially in the Black Sea region due to insufficiency of necessary funds and equipment for cleaning up the oil spills. It is noteworthy to mention that in north-west part of the Black Sea coast the oil spills were caused by violations during ballast cleaning operations and fuelling.

15. Statistical data, issued by the ministries of health in many countries in the region point to the reduction of life expectancy of humans, high occurrence of cases with cancerous diseases, respiratory tract diseases and skin diseases.

16. It is also necessary to stress that as a result of the financial situation of the population in many BSEC countries especially in the rural areas, the furnaces are heated with various types of cheap low quality coal. On the other hand, there are many cases of deforestation.

17. Motor transport remains as a main source for environmental pollution. The air quality especially in big cities is deteriorated due to the substantial increase of motor vehicles, old cars as well as poor fuel quality. Here we have to take into consideration of the ascendance of new problems (load on ecosystems from air, railroad and road transport etc.).

18. While analyzing the factors leading to the aggravation of the environmental condition one has to admit that within the national communities in the region a number of unresolved political conflicts still prevail. As a consequence so called "grey zones" have emerged - the territories that are not controlled by national governments. It is rather difficult to implement the ecological rehabilitation programmes within these territories.

III. Strategies and practices in the sphere of environmental protection.

a) Conventions, Protocols, Agreements

19. The World Summit held in Rio-de-Janeiro in 1992 where for the first time the UN was called on to assist the governments in re-defining the principles of economic development and to seek the ways for reducing irrational management of nonrenewable natural resources that lead to global pollution serves as a starting point in contemporary consideration for ecological problems. The governments have recognized necessity for reorientation of international and national economic policies and economic decision-making by taking seriously into account the ecological factor.

20. Some other global conventions concluded in the field of environmental protection and to which a number of the PABSEC member states have adhered are of special importance: the UN Framework Convention on Climate Change (New York, 1992); Kyoto Protocol to the UNFCCC (Kyoto, 1997); the Geneva Convention of 1979 on Long-range Trans-boundary Air Pollution; Convention of

the Protection and Use of Trans-boundary Watercourses and International Lakes (Helsinki, 1992).

21. The need for the legislative harmonization and common political strategy in controlling pollution level in the Black Sea region is a key factor for launching the implementation of the plan of action.

22. The Bucharest Convention, signed in April 1992 and ratified by all states and entered into force in 1994 provides a legal basis for cooperation and liability framework, upon which the individuals can claim damages inflicted on their territories. It is of prime importance that the Convention acknowledges the need for closer cooperation with the competent international organizations based on a coordinated regional approach in the field of protection and utilisation of the marine environment of the Black Sea area.

23. Following the conclusions of the Rio Earth Conference in 1992, the Ministers of Environment of all six Black Sea coastal states signed in Odessa in April 1993 a declaration on specific tasks, priorities and goals. This meeting resulted in launching a necessary formal government authorisation paving the way towards beginning of cooperation in rendering assistance in developing strategies and initiatives for low waste technologies, health and environmental impact assessment and introduction of user fees.

24. In 1993 the Black Sea countries requested assistance from the GEF - The Global Environmental Facility established under the management of the World Bank, the UN Development Program and the UN Environmental Program. Following the three years' sponsorship by GEF in collaboration with the EU, Canada and Japan a coordinated Black Sea Environmental Program (BSEP) has been established. Given the fact that communication facilities and dissemination of information acquire significant importance in implementing priorities and facilitation of environmental management the Activity Centres were set up in the countries and the Program Coordination Unit (PCU) was established in Istanbul. The BSEP became a key element for the Black Sea region in providing analyses of environmental degradation.

25. The problem of nature conservation in the South Caucasus became the topic for discussions within the framework of Caucasus Initiative intergovernmental cooperation starting in 1999. Within this programme Armenia has concluded a number of agreements with Germany. Armenia leads close cooperation with Georgia, Greece and Russia through the framework of bilateral agreements in the field of environmental protection. Presently Azerbaijan has concluded more than 15 agreements with foreign oil companies for mining and production of oil. Realization of these contracts is carried out by many foreign oil companies jointly with Azerbaijani an specialists. During mining and exploitation of the oil fields activity of ecologists and oil concerns is carried out

in accordance with internationally adopted standards and conventions and most advanced and modern technologies are to be applied.

26. The established cooperation between Bulgaria and Romania serves as a good example of bilateral cooperation between the PABSEC member states. Within the framework of the activities of the Intergovernmental Commission on environmental protection a number of important multilateral instruments were concluded, among them: Convention on Environmental Protection; Convention on Protection of Black Sea Against Pollution; Convention on Cooperation for the Protection and Sustainable Use of the Danube River; Protocol regarding the Meeting of the Ministers of the Environment of Romania and Bulgaria in 1999; Protocols regarding the Intergovernmental Meetings of the Ministers of the Environment of Romania and Bulgaria; Declaration on Cooperation among the Ministries of the Environment of Bulgaria, Moldova, Romania and Ukraine for the Creation of a Lower Danube Green Corridor; and a Five Years' Programme for the period 2000-2005 by the Ministries of the Environment of Romania and Bulgaria.

27. Special Agreement on environmental protection and rational management of natural resources (2003) regulates interaction in this field between the Ministries of the Environment of Ukraine and Bulgaria. At the same time, the regular discussions taking place within the framework of the Bulgaria-Ukraine Intergovernmental Commission on trade and economic cooperation bring additional contribution.

28. Given the fact that the six PABSEC countries are at the same time the members of the CIS, it has to be noted that within the CIS framework the Agreement on Cooperation in the Field of Ecology and Protection of Natural Environment has been concluded and the Intergovernmental Ecological Council of the CIS functions based on this document.

b) The role of the nongovernmental organizations

29. The activities of the nongovernmental sector constitute one of the major necessities for monitoring and observation of the ecological developments in the region. Many local ecological groups function in the countries of the region.

30. The NGOs raise public awareness regarding the ecological impact on health of the population, dissemination of information on consequences of pollution and attract citizens' attention to the mismanagement of resources in the countries aiming with the above actions to prevent environmental degradation.

31. As an example, in 80ies in Armenia a civil ecological movement of radical character managed to close down a number of highly hazardous industrial sites including Armenian Nuclear Power Plant (it was reopened in 1995). It is also well known fact that in late 90ies civil ecological organizations in Moldova

prevented transit through its territory of the nuclear waste of Kozloduy Atomic Power Station in Bulgaria.

c) The Practice in the BSEC

32. Right after signing the Bucharest Convention, providing the international legal basis for the joint action, ecological programmes have been elaborated within the framework of the BSEC Working Group on Environmental Protection in cooperation with the European Commission (PHARE and TACIS programmes), specialized bodies of the UN (UNDP and UNEP), the World Bank, etc.

33. The BSEC Working Group on Environmental Protection places importance on cooperation of the BSEC member states in the field of ecological protection based upon the Bucharest Convention and Odessa Declaration, as well as strengthening of the cooperation in four directions: a) monitoring air, water and soil pollution; b) elimination of ecological consequences caused by industrial catastrophes and natural calamities; c) nature conservation and management strategy with attention to the coastal areas; d) development of tourism which has immense potential for the area only considering environmentally friendly activities.

34. The Black Sea Environmental Programme was signed on 31 October 1996 with participation of six BSEC member states: Bulgaria, Georgia, Romania, Russia, Turkey and Ukraine. This Programme is primarily oriented to realization of the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea. The Strategic Action Plan envisages cooperation in three directions: reduction of pollution, living resources management (fish spawning, protection of human health) and sustainable human development in the coastal zones. The cooperation has to be based on elaboration of national action plans in each country.

35. "The BSEC Economic Agenda for the Future" adopted in 2000 states that in order to deal more effectively with the problem of reducing pollutants the BSEC has to reconsider and streamline the Strategic Action Plan for the Rehabilitation and Protection of the Black Sea. Its work has to be more effectively oriented towards introducing new technologies, building waste water treatment plants, promoting environmental education of the population and other relevant activities. The efforts for efficient environmental protection should be consolidated and strengthened by policies, programs and actions that will follow specific time schedules.

36. The BSEC continues its cooperation with the UN on the issues of ecological safety in terms of agriculture and food. This cooperation is implemented through the technical assistance of the UN FAO.

37. In 1997 the European Commission offered the BSEC to deepen its cooperation in four main fields including sustainable development, environmental protection

and nuclear energy. Meeting this proposal the BSEC elaborated in 1999 “The Platform of Cooperation between the BSEC and the EU”. This document states that the cooperation in the fields of sustainable development and environmental protection including nuclear safety should be deepened.

38. The BSEC member states endorsing their intention to proceed with European integration underlined that establishment of the common market with the EU could speed up resolution of the environmental problems.

39. Realization of this strategy requires from the candidate countries immense investments both from state and private sector supported by the external assistance from the international financial institutions. The EU is the main donor in this area and cooperation between the BSEC and the EU could become a foundation for coordination of the activities in environmental policy.

40. In the light of further accession to the European Union, Romania and Bulgaria have adopted long-term ecological strategy within the framework of the provisions of the Maastricht Treaty. These countries adopted two main directions in their activities: legislative harmonization (compatibility with the European acquis) and institutional reforms requiring development of adequate institutional framework with the capacity to monitor and implement the body of the European law.

41. In addition, in conformity with the EU legislation the candidate states have to take up the following measures: establishment of operative Ecological Foundation, functioning as an economic instrument for main investments in the environmental sector; publication of the special assessment of expenses and relevant financial plans for implementation of main directives.

III. Approaches bringing economic solutions to the environmental problems

Ecological aspects of sustainable development

42. The core of the sustainable development concept lays in the problem of foreseeing long-term ecological implications caused by the economic decisions. It is necessary to point out four criteria of the sustainable development with regard to the long-term perspective based on the principle of classification of natural resources and the dynamics of their reproduction.

a) With regard to renewable natural resources (land, forests etc.) – their quantity or ability to increase the biomass should not be reduced at least within the certain period of time, i.e. their simple reproduction should be retained;

b) With regard to non-renewable natural resources (minerals) – there is a need for maximal deceleration of the stock depletion rates with a perspective of their replacement by other unrestricted or renewable resources (partial

replacement of oil, gas, coal by the alternative energy sources – solar, wind, geothermal, biomass);

c) With regard to wastes – possibility of their minimization on the base of application of low-waste, non-waste and resource-saving technologies shall be provided;

d) Environmental pollution both in total and by individual components should not exceed its present-day level in perspective. It is necessary to provide possibility of minimizing pollution till to economically and socially acceptable level. Notions of weak stability and strong stability are to be used for more detailed analysis of the sustainable development.

43. In accordance with the fundamental ecological environmental conception the opinions have been formed that of supporters of weak and strong “economic stability”. Supporters of the strong stability model often take a strict “anti-economical” stand on many development issues: stabilization or reduction of the economical scales, priority on direct management, active constraint of consumption etc.

44. Supporters of the weak stability model prefer modified economic growth with accounting “green” changes of economical indexes, wide application of economical environmental tools (penalties for pollution), and changes in consumption behaviour.

45. In spite of differences of these positions both of them oppose man-caused (technogenic) conception of development, which in its turn based on unlimited development of free market, total orientation on economic growth, exploitation of natural resources, consumption maximization.

Possible economic instruments

46. Introduction of environmental user fees is an effective means for budgetary recharge with further redistribution of finances according to the needs for implementation of the environmental programmes. Thus, in Armenia the following forms of fees have been introduced: for the discharge of hazardous substances (both in the air and water basins); for the discharge of waste resulted from production and consumption residue; for the damage to the environment. It is also compulsory to make the payments for water consumption, for use of natural mineral resources; consumption of bio-resources.

47. The “polluter pays” principle has substantial development in the ecological strategies of many other countries. Its application is backed by the implementation of the relevant legislative acts, which leads to the severe financial sanctions, sometimes ending with the bankruptcies of enterprises unable to pay out the penalties. Similar provision is envisaged in the Romanian legislature. Nevertheless, in certain cases close down of the enterprises whose further functioning poses threat to the human lives as it was in the case of

Chernobyl becomes mere necessity. The interpretation of the “polluter pays” principle as “pollution is permitted to those who pay” is unacceptable. The “polluter pays” principle implies that those who pollute the environment pay the necessary costs that arise as a result of possible environmental damage and rehabilitation of environmental degradation.

48. In a number of countries large-scale enterprises usually being as a basic source of environmental pollution are oriented to ecologically secure strategy of management, taking into consideration economical effect, which may be resulted by this strategy at the same time. For instance in Ukraine famous enterprise OJSC “Stirol Concern” defines the system of environmental management by:

- saving of electrical energy, thermal, water and raw material resources;
- using of energy-saving technologies and closed water-rotation cycles;
- decreasing of volume and deeper processing of wastes;
- transferring to internal-drainage system of water consumption;

Remarkable fact is that application of this strategy has not been resulting to increase of costs, contrary clear profit of the corporation was approximately 80 million \$ in 2004 or 220 % obtained in 2003.

Such example clearly demonstrates that also economical benefits can be gained by the system of environmental management.

49. In the sphere of agriculture, it is expedient to apply the principle of “ecological farming”. In its essence it is a production based on utilization of original ecologically clean technologies and renewable feed-stocks. The reference point for this concept is the special EC Regulation on Biological Farming adopted in 1992. The concept of ecological farming is being applied in Bulgaria, Moldova, Romania and Turkey.

50. The time is ripe for considering the utilization of alternative ecologically clean energy resources. Within this context, the energy from the alternative sources like sun, wind and geothermal wells acquires particular interest. In terms of the environmental protection the other energy resources (like gas, nuclear energy) are viewed as a source for additional environmental pressure and the prime emphasis is placed upon the highly efficient type of energy consuming. However, when the alternative energy sources are used in the future the factor of revenue losses should be taken into account towards the energy exporter countries.

51. One of the basic preconditions for the whole ecological safety system is preparation of scientific experts specialized in the ecological issues. Furthermore, it is vitally important to find resources to finance scientific studies in the sphere of ecology.

52. With the understanding that the problem of outdated technology is being acquiring importance in the member states it is necessary that technological

renewal and further installation of new technologies are promoted and supported.

53. Big number of the monuments of cultural and historical heritage of our nations are scattered on the territories of the BSEC countries. Environmental pollution and first of all atmospheric pollution and weathering leads to the chemical and mechanical damage of the monuments of the past and present deprive our nations from the artifacts of their history thus having negative impact upon the local development. Therefore, the threat of significant losses in tourism industry arises which constitutes important source of income for many BSEC member states.

IV. Conclusions

54. The environmental problems prevailing in the Black Sea region are universally recognized and are to be addressed immediately. Efficient and effective cooperation aimed at preservation and protection of the regional wealth and maintenance of normal ecological conditions is a duty of each and every BSEC member state.

55. In order to implement all necessary measures for the environmental protection the following should be taken into account:

- resolution of the environmental problems within the framework of the international conventions, regulation of the processes of meeting the international responsibilities is possible only through the scientifically established regulatory legal acts and technical regulations.

- setting up of necessary instruments and creation of the sustainable system of management is possible through harmonization of ecological legislation in the countries.

- as a rule, structural reforms that may permit the states to establish effective control including ecological expertise lead to the setting up of specialized institutions who in their turn need adequate financial resources.

56. The economic aspect in achieving these goals is rather determined by the institutional reforms, development of human resources and further effective investment policy and management.

57. Notwithstanding the fact that the environment is a framework for interaction of many diversified problems like industrial practices and demographic changes, it plays a major role in understanding the causes and dynamics of environmental deterioration and, consequently, its control. Without collective cooperation and policy of sustainable development, the tasks being vitally important for the ecology will remain unrealized.

58. International community including the BSEC member states can uphold the possibility of “collective environmental management”, which will consequently become a basic element for mutual survival of the ecosystems and the people living there. Only these measures may unlock the entire scientific experience and budget resources aimed at fulfilling the environmental tasks, as well as set up the new efficient environmental strategies within the national and international policies.

59. Efficient ecological policy in the BSEC member states has to be applied in for the rehabilitation of polluted areas, especially for the prevention, mitigation and abatement of environmental problems.