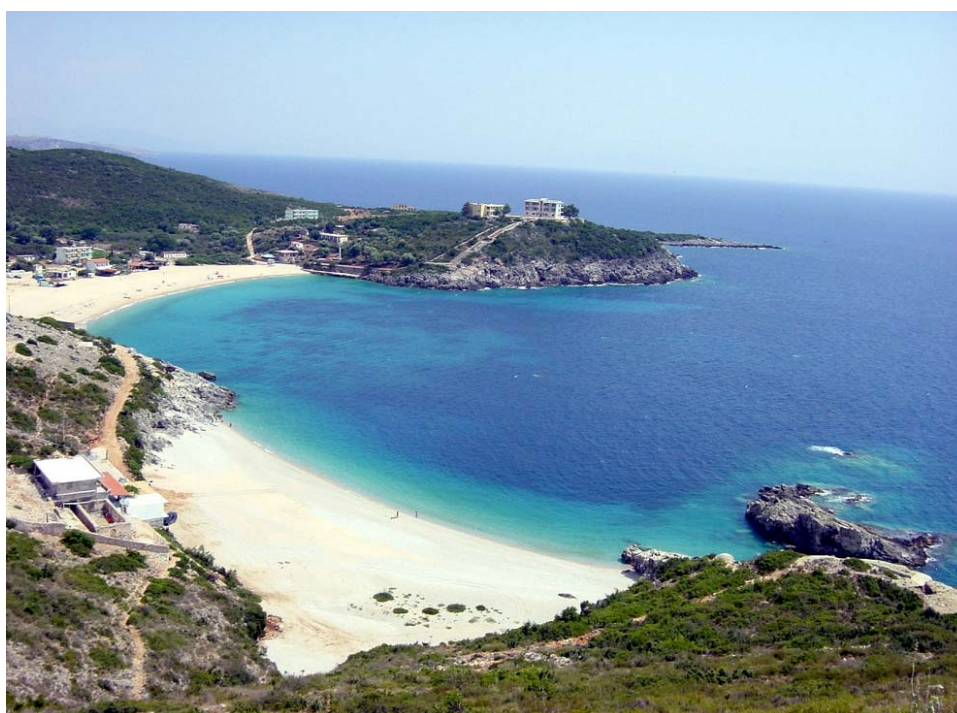




Albanian National Action Plan for the Reduction of the Coastal Zone Pollution from Land Based Sources



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EXECUTIVE SUMMARY

Major risks to human health and marine productivity and biodiversity result from land based activities. 80% of discharges into the sea originate globally from land-based activities, including urban, industrial, and agricultural discharges, and atmospheric deposits. These pollutants affect the productivity of marine environment, including coastal waters. In addition physical alterations threaten the marine environment, including destruction of habitats important to ecosystem health.

Around a billion people live presently in urban coastal areas. Studies have shown that a considerable portion of the coastal area is globally threatened by the uncontrolled human developments. Often health and livelihood of the people living in coastal areas is directly dependent on the environmental situation of ecosystems, estuaries and lagoons. Increased pressure requires a serious commitment to preventive and regenerative measures at local, national, regional, and global levels.

In the European context, environmental problems related to the sea are: eutrophication, overexploitation of natural resources, and the grave long-term effects of climate change causing the increase in the level of water. According to a 1999 report of EU, more problematic countries are Spain, Italy, Ireland, and Greece.

Major factors of this environmental situation are urbanization of coastal areas, transport, agriculture (fertilizers and pesticides), livestock, industry, energy generation (concentrated near ports), fishing, aquaculture, and massive tourism.

The number of tourists in the Mediterranean Sea is projected to rise to 250 million in 2025 from 135 million in 1990 90% of which will be vacationing in the northern part of the Mediterranean.

The presence of hydrocarbons from oil discharges polluting both the water and the coast presents a major problem to the Mediterranean Sea. Eutrophication caused mainly from sewage, industrial, and agricultural discharges is concentrated mainly in the Adriatic sea and coastal area of the delta of the Nile. A number of cities in the Mediterranean presently do not have treatment plants for polluted water.

Preparation of the National Action Plan (NAP) to control pollution of the coastal area from land-based activities is being prepared at a critical moment in the protection and development of this area exhibiting a variety of scenery and rich in natural resources. The entirety of these values is a reliable basis for a sustainable development at this juncture and for the future generations.

Regardless of the imprudent use of natural resources after the '90, constructions without appropriate permits, propensity for immediate profits rather than protection and sustainable development, lack of human and financial resources for the management of the coastal area, and poor implementation of the law, the coastal area still maintains a potential to provide significant

revenues for the country through developing tourism and other economic activities and preserving natural riches and cultural heritage sites,.

In an international context, preparation of the NAP takes Albania a further step towards meeting the obligations under the Convention for the Protection of the Mediterranean Environment and the Coastal Region of the Mediterranean and its related LBS Protocol.

In a national context the preparation of NAP is based on enhancing legislation, urban studies for developing tourism in the coastal area, projects for the protection and integrated and sustainable management of the coastal area, which are being implemented recently.

The design of the NAP for the Protection of the Coastal Area from Land Based Polluting Sources can be considered as the third and the final phase of the plan preparation process. It is a continuation of the work carried out under the National Diagnostic Analysis and Pollutant Budget in the coastal area, and the Sectorial Plans for Coastal Districts.

These studies contain an analysis and a condensed treatment of the available environmental information for the Albanian coastal area and on this basis environmental issues were identified.

Upon the completion of the NDA and BB, urban fluid discharges, urban solid wastes, and traffic related air pollution were identified as priority issues. "Hot spots" classified as such by international organizations that have conducted studies in Albania were considered as priority issues for particular districts. In addition potential industrial discharges in several coastal districts were listed as environmental issues to be resolved under this plan.

Sectorial plans at district level were prepared, including coastal districts and districts with no access to sea but that could potentially generate environmental problems.

The SP contains proposals for enhancing the legal framework on the protection of PA from land-based pollution sources and relevant actions for each district in pursuance of the obligations under the Action Strategic Program for the Treatment of Land-Based Pollutants and Activities



SCOPE

Being party of Barcelona Convention, The Republic of Albania responds to an international call to prepare National Action Plan (NAP) with the main aim to protect the coastal area from land based sources of pollution, reducing or eliminating as much as possible pollutant inputs through coordinated actions at local, regional, national and global level. The National Action Plan is part of a critical path that brings Albania one step closer to addressing domestic commitments and fulfilling international obligations for pollution prevention and marine environmental protection. Preparation of NAP is the proactive culminating step of all the SAP activities, as this plan identifies all the final actions to be taken aiming to reach the SAP targets regarding the protection of Coastal Zone. Defining the long term priorities NAP is the cyclic process allowing the stakeholders to identify and address the threats and impacts to the marine and coastal environment. Albania NAP addresses the concerns about the degradation of the coastal environment from LBS pollution. Its goals are:

- to protect human health and the environment;
- to reduce degradation of the coastal environment from the LBS pollution;
- to remediate damaged areas or “hot spots” in the coastal areas

The NAP will link all national actions to control land-based activities with conservation, sustainable use and economic diversification. It will complement the actions foreseen in the Local Environmental Action Plans of some of the regions included in the coastal area, such as those dealing with integrated management, coastal marine protected areas and pollution prevention.

1.1 Overview of the past and actual national programs to address marine pollution from land base sources

The first environmental study on the coastal zone was performed in the year 1996. In 1994-1995 the World Bank financed, through the Mediterranean Environmental Technical Assistance Program, the preparation of the Coastal Zone Management Plans for northern (from the border with Montenegro to Durres) and southern (from the Karaburuni Peninsula to the Greek border) coastal regions. These plans were methodologically complementary with the UNEP/MAP Coastal Area Management Program (CAMP), which concentrated on the central coastal region between Durres and Vlore (1993-1996) and are adopted by the Council of Territory Adjustment of the Republic of Albania in the year 2002.

The major objective of these programs was to integrate biodiversity protection, tourism development and institutional strengthening. All three coastal plans made a thorough analysis of the situation and gave valuable proposals for future development. But, above all, they were an opportunity for national experts to increase their expertise using some of the best international knowledge. Two obstacles stood in the way of the successful implementation of these projects:

First, Albania did not involve as many stakeholders as it could have done (several NGOs, ministries and scientific institutions were not active in the preparation of the plans). Later, it appeared that those that were not very much part of the process but which had great influence in the decision-making process and made some resistance to the implementation of the plans.

Second, the optimistic mood of the mid-1990s was suddenly crushed by the events in 1997. That had very negative consequences for the coastal area's development, because many initiatives were interrupted or stopped, and no major international interest in tourism investment has been shown since then.

In parallel with the coastal zone management initiatives, EBRD was active in promoting the development of tourism, particularly of the private sector. It financed the preparation of Albania's first tourism strategy in 1992. It was to be followed by a detailed tourism study for the southern coastal region. Unfortunately, this initiative was also interrupted by the 1997 events. Now, the German Development Fund (GTZ) has prepared a new tourism strategy and EU has financed, through PHARE, a number of projects focusing on biodiversity and wetland protection in the coastal area.

Following the sudden cessation of international support for coastal area management, Albania turned to its own resources and opportunities. In this respect, two initiatives should be singled out:

the National Biodiversity Strategy and Action Plan were adopted in 2000. The Strategy proposes a network of 25 marine and coastal protected areas. Thirteen are lagoons, wetlands and estuaries, with a total area of 36,550 hectares.

The Ministry of Environment, constantly insisted that the three above-mentioned coastal zone management plans should be adopted by the Government as its strategy for the protection and management of Albania's coastal area. Finally, the Council of Ministries adopted the CZMP in the July 2002 asking for implementation of the main CZMP recommendations by the national and local territory planning authorities.

A World Bank funded Integrated Coastal Zone Management and Clean –up Project (ICZMCP) to be implemented in two phases over 7 years. The overall objective is to protect the Albanian coastal resources and cultural assets and promote their sustainable development and management through: i) establishment of an integrated coastal zone management (ICZM) institutional and policy framework and strengthening the broader regulatory capacity at central, regional and local levels for protection of coastal and marine natural resources; ii) increasing access to basic services associated with improvement of the quality of life and attractiveness of the coastal areas; and iii) implementing sub-projects aiming at promoting sustainable tourism sector development. Phase 1 (from September 2005 to August 2009) will concentrate on the operational strategies, institutional capacity strengthening for improved land use management, coastal environmental infrastructure and rehabilitation, as well as remediation works in Porto Romano, a hazardous hot spot in Durres. The ICZMCP will be aligned with strategic directions of the EU with respect to Integrated Coastal Zone Management and other EU environmental directives.

Since 1992, Albania is cooperating with UNEP/MAP under the MEDPOL program in compliance and trend monitoring of several environmental indicators defined by common MOU and supported financially both by UNEP/MAP and Government of Albania (50).

Under this program studies and monitoring activities have been performed for the coastal waters which contribute in the knowledge for dimensions of environmental impact of human activities in the coastal waters.

A monitoring program of the urban discharges (solid and wastewater) is implementing since 2001 supported by the state (former NEA or actually the MoE) and gradually is extended and carried out in very close coordination with MEDPOL monitoring program (50).

Concerning the monitoring of the marine open waters, the most important, complete and integrated research project of the last 40 years in the South Adriatic Sea, has been computed on 2000-2001

by CoNISMa (Consorzio Nazionale Interuniversitario per le Scienze del Mare), the biggest Italian organization of marine research which include 25 universities. Named "Project of a monitoring network in the marine waters of the South Adriatic Sea", this initiative was financed within the Apulia-Albania Interreg II Programme. Seven universities and two Italian research institutions participated in it. From the Albanian side the initiative was coordinated by Ministry of Education and Science and supported by the Hydrometeorology Institute of the Academy of Sciences. Important dates on physical, chemical, and biological oceanography, obtained through three oceanographic cruises (two in open waters and one in coastal ones), permitted to have a complete picture of the shelf and open South Adriatic waters environmental situation and to design a map of the future monitoring of this region. (37)

A UNDP project "Conservation of Wetland and Coastal Ecosystem in the Mediterranean Region" is aimed to ensure sustainable management of the biological diversity of coastal areas and wetlands through the development of adequate legal and regulatory frameworks, creation of institutional organizations, capacity building and awareness rising. The project is a national component of a Mediterranean regional initiative involving Albania, Egypt, Lebanon, Morocco, the Palestinian Authority and Tunisia. An inter-ministerial coordination mechanism for projects done at the local and national levels will also be established, and demonstration activities at the most significant sites shall also be funded. The amount allocated to Albania under the project is USD 1.9 million with USD 1.75 million coming from UNDP/GEF and the remaining USD 0.15 million contributed by the Albanian government. As a result the following outputs are expected: management plans for the protected ecosystems and wetlands, policy documents to be adopted by decision-makers, inventory and establishment of a monitoring system for threatened biodiversity species and hydrological conditions of the wetlands.

The National Environmental Action Plan adopted in January-2002 (NEAP-2002), envisaged the preparation of the Action Plans for the control of LBS of pollution and hot spots, beside legal and institutional arrangements. It also envisaged, projects for the rehabilitation and extension of the sewerage systems in Durres, Vlora, Tirana, Saranda, Lezha, Kavaja, Shkodra and construction of sewage treatment plant in Lezha, Shkodra, Saranda, Durres, Kavaja. For Lezha, Kavaja and Durresi feasibility studies have been completed and constructed wetlands are proposed to clean up the related wastewater. A detailed design was prepared for the construction of a wastewater treatment plant in Vlora, using the mechanical-biological treatment. (1)(5)

Regarding the urban solid waste management, a National Waste Management Plan was completed in 1997. Designs for six sanitary landfills were included in this Plan (4). Among the towns are also Shkodra, Lezha, Fieri, Elbasani. So far, only the construction of the landfill in the

Lezha town has started, but has been interrupted. In the NEAP-2002 the design and construction of a landfill for Tirana, Durres and Kavaja are envisaged. (1)

As for the hot spots there are on-going feasibility studies for Soda-PVC in Vlora and Porto Romano in Durres. From CARDS Program are allocated 700,000 Euro for the reconstruction of the wastewater treatment plant in Ballsh refinery, while for the arsenical solutions in Fieri, EU has allocated more than 1 million Euro for their on-site treatment and transport out of Albania for final treatment and disposal at a hazardous waste treatment plant.

In Sharra dumpsite, the Ministry of Environment has invested for some improvements in the management of the site and in particular to cease the fires. The Municipality of Tirana is running a project (6 million Euro), which will improve significantly environmental management and provide condition for the safe closure of the dumpsite. (16)

In November 2004, the government has adopted a decision for the demolition of illegal buildings along the coastal zone. This is another signal that the government is devoting more attention to this area, which is the richest area for the future economic developments of Albania.

1.2. National Legislation

The issue of *legislation for coastal management* is addressed in a very discreet way. There is no law on coastal management, but the Ministry of Environment would like to start the initiative by preparing the draft of the law. If this will be the case, then the ministry might need an outside technical assistance. The most powerful piece of legislation that regulates development in the coastal area is the Law for Urban Planning (1993, amended in 1998). It provides an entire hierarchy of the planning interventions, many of which could be very useful if applied in the coastal area. This law, however, does not define what is coastal strip, coastal zone or coastal area and, consequently, does not provide management guidelines for either of these areas. Unfortunately, there is technical capacity lacking to implement fully this law. Other laws that indirectly touch upon coastal areas are:

- *The Law on Environmental Protection (2002),*
- *The Law on Development of Tourism Priority Zones (1993),*
- *The Law on Fishing and Fish Farming (1995),*
- *The Law on Water Resources (1996),*
- *The Law on the regulatory framework of the water supply sector and the treatment of the polluted waters (1996),*
- *The law on EIA (2003)*
- *The Law on Protected Areas (2002)*
- *The Law on Protection of Marine Environment from pollution and damages (2002),*

- *The law on Environmental Management of Wastewater(2003)*
- *The law on Environmental Management of Solid Waste(2003)*
- *Decision of Council of Ministers on Environmental Monitoring (2002)*
- *Decision of Council of Ministers for the approval of the National Environmental Action Plan (2002)*
- *Decision of Council of Ministers for the approval of norms on effluent discharges (2005)*

1.2.1 Environmental Protection Law

The first law on Environmental Protection was approved in 1993, and amended in 1998. Later on, in 2002, a new frame law was adopted, which defines the general principles and procedures of environmental management. The amendments have improved and increased the competencies of the environmental protection institutions.

This law regulates the relation between the man and the environment, protects the environmental elements and processes and guarantees the material conditions for the sustainable development by completing the necessary legal frame for the implementation of the constitutional right to have an ecologically sound environment.

The law on environmental protection provides for the:

- Rational use of the environment, reduction of discharges into and pollution of the environment, and the prevention of and where necessary rehabilitation and restoration of environmental damage;
- Improvement of environmental conditions related to quality of life and protection of public health;
- Preservation and maintenance of natural resources, both renewable and non-renewable, and rational and efficient management to ensure regeneration;
- Coordination of state activities to meet environmental protection requirements;
- International cooperation in the field of environmental protection;
- Promotion of public participation in environmental protection activities;
- Coordination of the economic and social development of the country with the requirements of environmental protection and sustainable development;
- Establishment and strengthening of the institutional system of environmental protection at the national and local level.

1.2.2 Development of Tourism priority Zones Law (1993)

The law "On Development of Tourism Priority Zones" of 1993, aims to define the institutional and the respective administrative framework for the identification of the priority areas, for the stimulation and the regulation of tourism activity in them within certain standards. The Ministry of Territory Adjustment and Tourism formulates the strategy for tourism development, which is endorsed by the Council of Ministers. Based on the strategy, city planning studies are carried out and approved to guarantee balanced and sustainable relationship between the environment and the economic opportunities of the zone.

The Council of Ministers, based on proposal from the Minister of Territory Adjustment and Tourism, restricts or bans the carrying out of activities in those areas that are not in accordance with the purpose of establishing these zones.

1.2.3 Fish and Acquaculture Law

The law "*On Fish and Acquaculture*" of 1995, this law aim at the following:

- a) Provision of a rational and responsible utilization of water biological resources and the development of aquatic life;
- b) To program the management in sectors of fishing and aquatic life;
- c) To provide measures of conservation to guarantee control of water biological resources;
- ç) To ensure a sustainable development of the fishing and aquatic life sector as well as good conditions socio-economical for producers;
- d) To provide request of the consumer about entry into the market of ichthyic products suitable for human consumption;
- dh) To promote and affect scientific and technological research in the sectors of fishing and aquatic life;
- e) To ensure the sustainable development and to stimulate the scientific research in these sectors.

It contains also the legal procedures for the administration of the lagoons and their boundary areas, the standards for fishing and acquaculture activities, their control by authorized bodies etc.

1.2.4 Water Resources Law

The law on "*Water Resources*" of 1996 aims:

- a) To ensure conservation, development and utilization in as rational as possible manner of water reserves, vital for life and social-economical development of the country;
- b) To ensure the right distribution of water reserves according to aims of use and their effective management;
- c) To ensure protection of water reservers from pollutions, abusement and overconsumption beyond the actual needs;
- ç) To determine the institutional framework at the national and household level to implement a national policy related to direction and management of water sources in the benefit of the population and social-economical interests of the country.

It contains also special articles for the protection of the coastal areas:

1.2.5 The law "*On the regulatory framework of the water supply sector and the treatment of the polluted waters*"

The law "*On the regulatory framework of the water supply sector and the treatment of the polluted waters*" of 1996 aims the establishment of a regulatory and institutional framework for the water supply and the treatment of polluted waters.

An important objective of this law is guaranteeing and protection of state interests on one side and the establishment of a transparent legal and regulatory environment that will promote private investments in this sector on the other side.

1.2.6 Environmental Impact Assessment Law (2003)

According to the basic law, all activities that affect the environment should be subject to an Environmental Impact Assessment and licensing system, which are developed in more detail in the specific law "On Impact Assessment on Environment" (the Law on EIA) approved on 2003.

This law provides for the assessment of environmental impacts of future projects or activities, thereby preventing negative impacts on the environment through the participation of central and local institutions, civil society, NGOs, etc. The law on EIA defines the rules, procedures, deadlines, rights and duties on the process of the assessment of the potential direct/indirect impacts of the activity on the environment.

Based on the type of the activity, projects are required to undergo two levels of review to assess environmental impact: (a) profound process of impact assessment on environment; (b) summary process of impact assessment on environment.

1.2.7 The law on Protected Areas

The purpose of this law is:

1. To provide special protection of important components of natural reserves, of biodiversity and the natural, as a whole, through the establishment of protected areas.
2. Protected areas are set to provide the preservation and regeneration of natural habitats, of species, of natural reserves and landscapes.
3. This law regulates the protection of six (6) categories of protected areas, applied in the territory of the Republic of Albania. The categorization of areas, status and level of protection for each area is based on the criteria of World Center of Nature Conservation.

1.2.8 The law on Protection of Marine Environment from pollution and damages

The law “*On Protection of Marine Environment from pollution and damages*” was adopted by Parliament in June 2002. The aim of this law is the protection of the sea from pollution and damages from human activities in the sea and the coastal area and pollution and damage prevention as well. The law defines the substances and materials forbidden to be discharged into the sea. This law is formulated mainly on the basis of the revised Barcelona Convention, Offshore Protocol, amended Dumping Protocol and partly on the basis of the amended LBS protocol.

A permitting system for the discharge to sea and the activities linked to the offshore protocol are formally in place, the incineration at the sea is forbidden in the terms of the dumping protocol, EIA is required for any activity related to the sea or its coastal area.

1.2.9 The Law on Environmental Management of Waste waters

The purpose of this Law is to protect the environment and human health from the negative impact of polluted waters by setting rules for environmental treatment of such waters and defining binding obligations upon subjects who discharge polluted waters in the environment.

The environmental treatment of polluted waters aims at:

- A. reducing production of polluted waters by economic and social activities; reducing the scale of pollution in such waters;
- B. promoting the use of best possible techniques and methods based on environmental standards; endorsing by-laws and regulations setting such standards;
- C. instituting technical and technological safeguards binding upon subjects of this law;
- D. shortening the period of exposure of polluted waters to the environment;
- E. early environmental treatment so that subsequent treatment of polluted waters is not prevented;
- F. reducing to the greatest possible degree the movement of polluted waters; treating such waters closest to the source and at the closest possible cleaning plant;
- G. prevention of environmental pollution caused by polluted waters and containing the harm where pollution there is;
- H. ensuring indemnification of pollution damage and the rehabilitation of the environment from damage caused by physical and legal entities who discharge pollutants over and above prescribed norms.

1.2.10 The Law on Environmental Management of Solid Waste

The purpose of this law is to ensure the protection of the environment and human health from pollution and damage resulting from solid waste through institution of their environmental treatment at every stage: creation, collection, separation, protection, transportation, recycling, processing

and elimination leading to waste reduction and the reduction of their hazardous and dangerous impact.

Waste management should aim at:

- a) reducing the amount of waste resulting from production activity;
- b) increasing the weight of degradable, recyclable and treatable waste in overall waste creation;
- c) shortening the cycle of management towards reducing exposure time in environment;
- d) sorting out and treating waste separately in every stage of management avoiding mixture with hazardous and solid waste. First stage treatment should not interfere with further processing.
- e) reducing transportation distances; ensuring elimination at the closest waste elimination plant.
- f) a safe incineration of remains resulting after final waste processing.

1.2.11 Decision of Council of Ministers on Environmental Monitoring

The government of Albania has approved during 2002 two very important decisions: 1° "On environmental monitoring" and 2° "On the standards of the air emissions". Environmental monitoring in Albania stipulated in the Decision of the Council of Ministers No. 103 as of 31 March 2002, which besides the environmental indicators defines also the responsibilities and duties of various agencies and bodies in the National Programme of Environmental Monitoring (NPEM) coordinated by Ministry of Environment. According to the decision all agencies in charge of implementation of NPEM are obliged to submit monitoring data to the Ministry of Environment. Based on this information, the Ministry of Environment prepares and publishes the State of the Environment Reports bi-annually. Such decisions support a regular monitoring and reporting of some important environmental indicators (pressure and impact indicators), including those established under the MEDPOL program.

The Decision of the Council of Ministers on monitoring of 1995 indicates who should monitor what regarding water in order to share and clarify the tasks of the different institutes and avoid gaps and duplications. This reallocation of resources was carried out because of the economic difficulties and the shrinking of budgets and does not reflect in-depth rethinking and restructuring of the monitoring system itself

The law already in force identifies the need of the preparation of several by-laws dealing with technical or methodological issues (permit conditions and format, reporting format, monitoring

methodology, quality assurance, monitoring sampling and its methodology, monitoring program, inventory methodology, inventory reporting, etc.)

1.2.12.1 Decision of Council of Ministers for the approval of the National Environmental Action Plan

The *National Environmental Action Plan* (NEAP), which was prepared in 1994 and updated in 2002, assisted by the EU PHARE Programme and the World Bank, is the basic document that presents the governmental policy in the area of environmental protection.

The main objective of the NEAP is to create the basis in ensuring an integrated environmental administration. It aims at making the environmental administration more effective, improving the capacities of the institutions, communities and individuals, mitigating and preventing environmental problems, strengthening the basis for the utilization of natural resources in line with the principle of sustainable development and with promoting economic growth and the reduction of poverty.

The updated National Environmental Action Plan is not a repeat of the National Environmental Action Plan which was approved by the Government of Albania in 1994. It starts from the achievements in Albania, the shortcomings and present national environmental problems, the regional and global tendency in environmental policies and the respective action plans, the consideration of the environmental protection as a national priority and the increase of awareness of the decision-makers, the public and the community. Based on these considerations this plan establishes a series of important tasks and responsibilities for many actors, whose successful fulfillment and implementation is expected to improve the environmental situation at a low cost.

Some of the main requirements for this Plan to achieve the abovementioned objective are:

- design of environmental sectoral policies and the implementation of the respective action plans,
- strengthening of the national system of environmental management with all its components,
- preservation, development and sustainable utilization of natural resources,
- increase in the utilization of renewable resources as opposed to non-renewable resources,
- completion of the legal regulatory framework, whilst ensuring its approximation with the European Acquis Communautaire, and its enforcement,
- increase of the gradual transfer of the natural resource management process to the community,
- strengthening of the role of the public and civil society,
- sustainable rehabilitation of the hot spots and sensitive environmental areas,
- promotion and education of prevention practices as opposed to corrective practices,
- establishing the need for an environmental impact assessment for defined activities,

- strategic environmental assessment of plans, Programmes and policies,
- meeting the obligations resulting from the signature of international agreements and the active participation in regional and global environmental Programmes,
- active involvement of local governments in the area of the environment and the development of their legal responsibilities,
- active participation in pan-European and global environmental processes,
- establishment of inter-ministerial communication structures in the field of environmental protection,
- strengthening of the inspectorates that promote environmental protection,
- reinforcing the system for the preparation of environmental information and the increase of the level to it for all the interested parties,
- promotion of clean production technologies,
- encouraging environmental education in schools,
- raising public awareness for environmental protection,
- development of urban administrations , with particular reference to the treatment of urban discharges, and urban planning.

The National Environmental Action Plan adopted in the January-2002 (NEAP-2002), has envisaged the preparation of the Action Plans for the control of LBS of pollution and hot spots, beside legal and institutional arrangements.

Based on the UNEAP-2002, two other recent policy documents such as the National Strategy for Socio-Economic Development (2002) and the Action Plan for the Implementation of the European Partnership (2004) emphasized a number of important projects related to the rehabilitation of some hot spots located on the Albanian coast. These documents represent the major actions for environmental protection of the country, which deserve the immediate support from both the state budget and the international community.

Besides, a new document was drafted and approved in 2005 namely the “National Plan for Approximation of Legislation”, which contains a list of legal actions to be taken for the approximation of EU legislation, which interest to the coastal and marine environment.

1.2.13 Decision of Council of Ministers for the approval of norms on effluent discharges (2005)

"DCM no.177, dated 31.03.2005 "For the approval of norms on effluent discharges" requests the new industrial activities to comply with these norms, since the very first day of their activity. No environmental permits issued to them in case they have not equipped their facilities with the

treatment plant for water effluents. A five year transition period has been given to the existing activities, so that they can take measures for meeting the norms on effluent discharges. From the first year of this transition period they are requested to draft and present to the Councils of Water Bodies their action program for meeting the approved norms. The five years transition period is also meant for the re/construction of the pipelines, collectors and the water treatment plants. In special cases and only for technical issues, when it is impossible to comply with the norms for hazardous substances in the effluent discharges, the Minister of Environment can issue a two year transition norms, which are less rigid than the approved ones. This act sets the criteria for classification of the receptive water bodies, aiming at the compilation of the list of sensitive and less sensitive areas, which are reviewed every 4 years. The law requests the active participation of the Councils of Water Bodies for the prevention and clean up of the water basins under their jurisdiction."

1.3 International Agreements

Albania is gradually signing and ratifying international conventions. Two that are closely related to coastal zone management are the Barcelona Convention for the Protection of Mediterranean Sea against Pollution and Protection of the Coast and the Ramsar Conventions on Wetlands of International Importance Especially as Waterfowl Habitat. Albania ratified the Barcelona Convention on the Protection of the Mediterranean Sea against Pollution on 30 May 1990, thus standing ready to assume important international obligations in respect to the marine ecosystem protection. Programs and joint activities implemented in the framework of the convention by the Activity Centres (such as Blue Plan, MED-POL, REMPEC) assist the country to improve its position. The Blue Plan Regional Activity Centre (BP/RAC) studies present the future environment in the Mediterranean basin and on the basis of various parameters (human population, urbanization, etc.) makes prospective scenarios. The MED POL programme was initiated in 1975 as an environment assessment component of the Mediterranean Action Plan. Its task was to assist the Mediterranean countries in the implementation of pollution assessment programmes. The Regional Marine Pollution Emergency Response Centre for the Mediterranean (REMPEC) plays a coordinating role in the implementation of the Emergency Protocol that provides for response action in emergencies. Under a sub-agreement with UNESCO, Albania takes efforts to install pollution monitoring in the coastal areas. In cooperation with UNEP and the Mediterranean Action Plan, Albania started pollution monitoring in the Ionian and Adriatic Seas and also of the main rivers that flow into the sea. Albania also develops cooperation with the Mediterranean Technical Assistance Program, and is involved into the program "Assessment of Environmental Status" financed by the European Union and the World Bank.

In 2001 Albania ratified amendments of the convention and its six protocols

In 1995, Albania acceded the Ramsar Conventions on Wetlands of International Importance Especially as Waterfowl Habitat.

Albania has benefited from both conventions. Karavasta – Divjaka lagoon has been designated a Ramsar site, while a number of programs developed under the Barcelona Convention have also had their impact (Coastal Areas Management Program, Mediterranean Pollution Monitoring and Research Program, Strategic Action Program).

1.4 National Institutional Structure

The Parliament is the main authority of the legislative system, and the Commission that covers also the environmental issues is the main body within the Parliament responsible for the environment.

The Council of Ministers is the main organ of the administrative system. The approval of national strategies, the National Environmental Action Plan and affiliated documents are the attribute of the Council of Ministers, which receives such documents for consideration and deliberation upon proposal from the Minister of the Environment.

The institutional structure for coastal zone management is based, in practice, on the capacities of only three ministries: the Ministry of Environment, the Ministry of Territorial Adjusting and Tourism and the Ministry of Agriculture and Food.

The Ministry of Environment (MoE) was established in September 2001. It is the highest authority entrusted with the power to submit to the Council of Ministers laws and by laws concerning the environment. The tasks and responsibilities of MoE are both political and technical and deal with the development of environmental policies, environmental legislation, monitoring and inspection. The MoE coordinates environmental monitoring procedures, determines the main policies and investment priorities for environmental protection, and represents the national focal point for many environmental programs and international agreements.

Through the Inspectorate of the Environment, the Ministry exercises regular control on the status of the environment in accordance with the rules and regulations established for this purpose.

An important feature of the Ministry of Environment is the existence of the Regional Environmental Agencies, which follow and implement preparatory procedures for environmental permits, and check compliance with the Law on Environmental Protection.

The Ministry of Agriculture and Food is another responsible body in the field of environment, more precisely dealing with natural resource management and preservation. This Ministry operates also in two very important direction, fishery and forestry (protected areas).

The responsibilities of the Ministry of Agriculture and Food (MAF) are :

- To develop an economic agricultural and quality food production infrastructure which makes best use of available natural resources,
- To provide employment and guarantees for the protection of human, animal and environmental health.

The Ministry of Territorial Adjustment and Tourism formulates the strategy for tourism development, which is endorsed by the Council of Ministers. Based on the strategy, city planning studies are carried out and approved to guarantee balanced and sustainable relationship between the environment and the economic opportunities of the zone.

The Council of Ministers, based on proposal from the Minister of Territorial Adjustment and Tourism, restricts or bans the carrying out of activities in those areas that are not in accordance with the purpose of establishing these zones.

Especially important is the inter-ministerial Council for Territorial Adjustment of Albania. It is made up of the Prime Minister and representatives of the Ministry of Environment and Ministry of Territorial Adjustment and Tourism, whose Department of Urban Planning and Urban Development acts as the Council's secretariat. Albania has currently joined the association-stabilization process and in this regard the Ministry of Environment and other ministries as well, in cooperation with responsible institutions are working to harmonize the national legislation with the EU one.

The environmental research activity is carried out by different research institutions and teams of the Academy of Sciences, Universities and research institutions of other ministries.

Physical plans for major investments and developments in coastal areas are being prepared by the National Institute for Urban Planning.

For management of border waters, on the proposal of the National Water Council, the Council of Ministers designates a special commission that manages relations for these waters with bordering countries based on the Albanian legislation and on relevant international conventions.

The National Water Strategy is formulated by specialized institutions under the direction of technical secretariat and is approved by the National Water Council.

1.4.1 The National Water Council and its Duties

The National Water Council (NCW) is the central decision organ for the management of water resources. The Prime Minister chairs the National Water Council; The National Water Council has the following duties:

- a) To propose draft laws and by-laws on any kind of activity in the field of water reserves;
- b) To prepare the legal, technical and regulatory framework for application of this law, as well as to issue guidelines and to undertake other actions necessary for implementation of the water reserves national plan;
- c) To direct and to approve plans of watershed basins;
- ç) To approve inter-regional and national plans and projects in the field of agriculture, urbanology, industrial and territorial development, to the extent that these plans and projects are related to planning, management and preservation of water reserves;

- d) To determine territorial borders of respective watershed basins in the entire country and to determine location of the basin center and where the register of water will be kept;
- dh) To establish organs and organizational units subordinate of the Council to facilitate the management of water reserves and for application of this law;
- e) To propose and adopt adequate measures for application of any international agreement or convention on water resources in which the Republic of Albania is a signatory party;
- ë) To approve issuance of concessions on water reserves in cases determined by the provision of the Council of Ministers. When these reserves are of a national importance, the agreement is effective after ratification by the People's Assembly.

The National Council of Water may exercise other functions designated by separate acts of the Council of Ministers.

NCW has the right to request from the ministries, committees, agencies and all other state units, data, analysis or the necessary technical and consultative support needed to prepare the national water strategy and the national plan of water reserves.

1.4.2 Technical Secretariat

Technical secretariat is an executive organ of the National Water Council, which is established by decision of the Council of Ministers and has the following duties:

- a) To implement the national policy of water reserves approved by the NCW;
- b) To apply provisions of this law;
- c) To compile the central inventory of water reserves either of quantity or of quality mode according to the rules decided by the NWC;
- ç) To issue permits and authorizations for the use of water and for discharges when the activity is performed outside the border of a single basin;
- d) To promote participants of water users in the direction and management of water reserves;
- dh) To apply provisions of international agreements on trans-border water reserves, part of which is the Republic of Albania;
- e) To publish reports and give opinions on issues pertaining to water reserves and to submit to the NWC for approval. Ministries, scientific research institutions and other state organs shall be obliged to reply in time to the requirements of the technical secretariat about information, assistance and collection of necessary data for preparation of studies.
- ë) To promote studies and research for the development of technical innovations related to use, discovery, utilization, preservation, recycling, treatment, protection, management and efficient use of water reserves;
- f) In co-operation with scientific research institutions to determine the fields of research and study on water reserves as well as allocate proper funding to them.

1.4.3 The Coastal Guard of the Republic of Albania

The Coastal Guard of the Republic of Albania is established for the purpose of enforcing the law of the sea.

- a) To effectuate Marine Pollution Education, Prevention, Response and Enforcement;
- b) To enforce legislation with regard to marine fishing;
- c) To ensure recreational boating safety;
- d) To enforce legislation with regard to living marine and submarine resource protection, including in the sea bed;
- e) To enforce legislation on the archeological and cultural values in the Albanian sea area.

1.5 LOCAL INSTITUTIONAL STRUCTURE

Local government authorities, the municipality and commune, represent an administrative and territorial unit covering the urban and rural areas respectively. The local government structures are required to fulfill joint obligations with regard to the protection of the environment and implementation of environmental law. These authorities are empowered to design environmental action plans in accordance with national environmental strategies and technical assistance provided by the Ministries.

1.5.1 Functions of Communes and Municipalities:

The Communes and municipalities exercise their functions in compliance with the regional and national policies. The communes and municipalities shall exercise the following exclusive functions:

I. In the field of infrastructure and public services:

- a) Water supply;
- b) Management of sewage and drainage system and [flood] protection canals in the residential areas;
- c) Construction, rehabilitation and maintenance of local roads, sidewalks and squares;
- ç) Public lighting;
- d) Public transport;
- e) City/village decoration;
- ë) Administration of parks, greeneries and public spaces;
- f) Waste management [collection, disposal, treatment];
- g) Urban planning, land management and housing according to the manner set forth in the law.

II. Social, cultural and recreational services:

- a) Preserving and promoting the local cultural and historic values, organization of activities and management of relevant institutions;
- b) Organization of sports, recreational and amusement activities and management of relevant institutions;

c) Social services and administration of institutions such as day care, elderly homes, orphanages, etc.

III. Local economic development:

a) Formulation of local economic development programmes;

b) The setting [regulation] and functioning of public market places and trade network;

c) Small business development as well as the running of promotional activities, as fairs and advertisement in public places;

ç) Performance of services in support of the local economic development, as information, necessary structures and infrastructure;

d) Veterinary service;

dh) The protection and development of forests, pastures and natural resources of local character.

IV. Public order and security:

a) The protection of public order to prevent administrative violations and enforcement of the commune or municipality acts;

b) Civil security.

1.5.2 The Regional Environmental Agencies (REAs)

The Regional Environmental Agencies (REA), established at prefecture level, have these responsibilities:

- control and ensure the implementation of the environmental legal framework,
- supervise and apply the preliminary environmental licensing for local activities,
- collect and process the data on the environmental situation at municipal and prefecture level and based on these to prepare a 2 year report on environmental state of the districts of their jurisdiction and present it to the District Council,
- collaborate on the preparation and implementation of local environmental action plans,
- promote use of environmental sound technologies and the introduction of environmental management systems,
- collaborate with local government on environment management and protection
- undertake activities on raising public environmental awareness in cooperation with communities, local NGOs and other local business organizations.

1.5.3 Councils of water basins

1. Councils of Water Basins (CWB) are local authorities responsible for management of water reserves in the respective basins.

2. In each river basin or group of river basins of the Republic of Albania shall be established the basin Council, provided that the limitations deriving from international agreements are acknowledged. The basin Council has a juridical status and is a subordinate of the technical secretariat of the NWC.

3. Composition, rights and duties of the basin Councils shall be determined by the NWC.

1.6 Developing the SAP/NAP: Strategy and Approach

The strategy and approach to the preparation of SAP/NAP follows the efforts of Republic of Albania in the area of environmental protection in the frame of association-stabilization process. In this regard The Ministry of Environment and other ministries as well, in cooperation with responsible institutions are working to harmonize the new environmental legislation with the directives of EU, to bring Albania closer to EU standards and principles, and to prepare the country for gradual integration into EU structures.

In accordance with Governmental Programme in the period from 2005 to 2009, Albania will have to achieve the expected economic progress with more efficient and sound environmental management of the country.

1.7 Methodology of Identification and Assessment of Issues

In the frame of NAP preparation, Ministry of Environment (MoE) set up and guided a working group with representatives from Ministry of Industry and Energy, Ministry of Territory Adjusting and Tourism, Ministry of Transport and Telecommunication and Ministry of Agriculture and Food. Key documents for the preparation of NAP were NDA, BB, and SP. In addition, other documents prepared by the MoE and other relevant ministries were consulted, including National Action Plan for the Protection of the Environment, National Action Plan for the Implementation of the Priorities of the European Partnership, draft National Plan for Legislation Approximation, Reports of Environmental Status in Albania, and Local Action Plans subject to NAP for several cities.

Information prepared by Regional Environmental Agencies and a number of projects on the management of polluted water, solid waste, and rehabilitation of hot spots contributed significantly to the current document.

Special attention has been paid in the process of NAP preparation, to the consultation with UNEP/MAP documents as the Protocol of Barcelona Convention on Protection of Mediterranean Sea from Land Based Sources, as well as to the specific guidelines developed by UNEP/MAP for the purpose of NAP preparation.

The above mentioned studies (National Diagnostic Analysis) and (Baseline Budget) have analyzed and sensitized the available environmental data and information regarding the Albanian coastal zone.

As a conclusion of those studies and Sectorial Plans the most priority problems identified are: urban water discharges, urban solid wastes and air pollution coming mostly from the mobile sources. The hot spots, have been considered as priority for specific regions. The issue of water

discharges and air emissions from industrial activities are as well considered in some regions included in the coastal zone.

Based on the analysis of the environmental problems of each considered regions are been highlighted the need for concrete and concerted environmental actions for the whole coastal area as:

1. Environmental treatment of urban waste waters
2. Environmental management of urban solid waste
3. Improvement of air quality mainly from the transport sector

For separate districts, where environmental “hot spots” and pollution from industrial discharges were identified, the following were considered environmental priorities:

1. Industrial pollutant discharges;
2. Environmental "hot spots" rehabilitation.

With respect to priorities 1 and 2, environmental issues of the cities were mostly considered. However, studies and projects should include communes and villages near cities and, where impacts on surface water and runoff to the sea are considerable, construction of pollution control facilities.

The National Analysis (NDA) and Baseline Budget (BB) were the primary documents that have been used for problem identification and assessment. All national conditions and environmental priority issues, such as contaminants and sources of degradation, physical alteration and destruction of habitat as well as the impact that land based activities have on the coast ecosystems are included in NDA, while Budget Baseline prepare the respective budget of pollutants in the district and national level aiming to have a standard reference level of pollutant releases. In addition, sectorial plans for coastal zone as well as UNEP/MAP guidelines were taken into consideration in the preparation of NAP.

1.7.1 Main features of Albanian coast

Albania is situated on the Western edge of the Balkan Peninsula and with 28,748 km² it is one of the smallest countries in Europe. It has a 476-km-long coastline on the Adriatic and Ionian Seas to the West and it is bounded by the Republic of Serbia and Montenegro to the north and north-east, by the Former Yugoslav Republic of Macedonia to the east, and by Greece on the south east and south. Fewer than 100 km over The Strait of Otranto separate Albania and the Italian Peninsula.

The coastal exclusive economic zone covers about 12,000 km². The coast can be divided into two different areas: the northern - Adriatic coast is considered the accumulation marine area while the southern - Ionian coast as the abrasion one (55). Independently, within each of the two areas there are exceptions. In the Adriatic coast, there are some sectors (Treporti- Vlore; Bishti i Palles-Durres; Rodoni Cape, north coast of Shengjin) in which abrasion phenomena take place. Also in the Ionian coast, the area on the left of Butrinti channel is an accumulation one (map of relief).

The Adriatic coast is generally a sandy one, with a total length of about 259 km, is low-lying alluvial plain 4-50 km wide. It comprises series of small deltas and lagoons, which are formed by nine rivers: Buna, Drini, Mati, Ishmi Erzeni, Darci, Shkumbini, Semani and Vjosa. Some of the deltas are still active and their shoreline shows dynamic changes in the vicinity of the river mouths. In the case of the Darci River, however, the old delta is undergoing severe erosion at the river mouth as the sediment input to the coast has almost completely ceased. The low coast is interrupted at a number of locations by hills at a right angle to the coast forming capes. These divide the coast into a number of closed physiographic units of varying sizes.

The continental shelf has a very wide extension (until 80 km from coast) especially in the northern area, with a tendency of reduction going toward south. The northern part of the Adriatic coastline, from the border with Montenegro to Shengjini beach, oriented WNW-ESE, is considered the continuation of the Dalmatian coastline (56). The rest of the coast changes slightly its orientation and trends NE-SW. Four important bays are present: Drini, Rodoni, Lalezi and Durres bays. From Cape Durres to Gulf of Vlora the coast is characterized by lowlands and wide coastal plains created by sediments deposited by the Shkumbini, Semani, and Vjosa rivers.

The lagoons, with a surface of 150 km square and with a water volume of 350 millions m³, are of an particular importance for the fishing, aquaculture, tourism etc.

The Ionian coast, which runs southeast about 170 km from Cape Karaburun to Stillo Island on Greek border, is hilly, mostly steep mountains plunging into the sea, except for the Butrinti wetland, in the south. This coastal zone is mainly rocky, with spectacular cliffs and headlands, grottoes,

caves, hillsides, harbors, bays and some of the country's most intact natural areas. Coastal alluvium occurs only in the beaches adjoining the town of Palase, at Borsh and within Butrinti lake. The continental shelf is very narrow, especially in the area of Otranto Channel (only few km), due to a tectonic origin (57).

From the scientific point of view, the Albanian Adriatic waters are of particular interest referring to the Adriatic thermohaline water circulation. The Albanian rivers system with its important discharge (of 1300 m³/s), constitute the second important Adriatic "dilution" factor, after the Po river (1500 m³/s), with a visible impact on the waters productivity of the eastern Adriatic waters.

Investigations computed recently (47), has underlined the necessity of a continuous monitoring, even they result oligotrophic ones and the situation is not so problematic. The main rivers, with their considerable amount of nutrients and of solids output, affect the primary productivity and present a continuous alteration factor for the littoral benthonic communities established in front of the delta rivers, without forgetting the eventual pollution factors.

The benthic analysis of the Adriatic area has shown a low biodiversity and a low biomass, due to the discharges of the rivers. *Turritela comunis* facies were found from -15/-60 m, *Neopycnodonte cochlear* tanatocenosi was dominant between -60/-120m, while between -17/-200 m *Globigerina* was dominant. In front of Drini River mouth, *Cymodoce nodosa* remains were found at about -7m.(47)

The absence of common biocenosis of *Possidonia* and coralligen in the investigated area is probably related to the strong sedimentation of solid matter, due to important outflow discharged from the rivers.

From the benthic diversity point of view, three different typical areas are to be considered as future target in the monitoring: the Drini river mouth area, the Karavasta area and the Butrinti lake area. Higher levels of organic compounds (proteins 61%, carbohydrates 34%, lipids 5%), about 3,5 higher than them found in other not antropic area, has been found in the sediments in front of Drini mouth river, Karavasta lagoon and Vlora area. Also active photosynthetic pigments were found in higher values in these three areas (0.94µg/µ).

The bacterial biomass and density in the sediments generally were within the norm, with higher values near harbors, urban areas and rivers. The highest values has been found near Vlora, even there is was no important river (47). The decreasing of bacterial biomass and density towards the north, confirms that this parameter is a good indicator of anthropogenic activity.

Considering the above results, the above 3 area has been considered as future monitoring areas.

Concerning the presence of the metals in sediments, normal levels of concentrations have been found generally with higher values of Cr, Ni, Cu particularly in the areas of Drini and Shkumbini mouth rivers.

The sediments of the areas in front of the river mouths are of a particular interest concerning the monitoring of the microzooplankton and resistant cists, so a semestral monitoring is suggested.

Generally good has been determined the situation of meiofauna populations, with excepting the areas in front of urban areas (ex. Durres).

The phytoplankton populations respond rapidly and efficiently to the variability of the environmental conditions, especially in the coastal waters and in the beaches where a lower hydrodynamic process is characteristic. In autumn, an average level of 1,21mg Cm-3h-1 of primary productivity has been found, with a maximum of 110 mgCm-3h-1 in front of Vlora bay. The phytoplankton biomass results to be equally distributed in the first 100 m of water column. A different situation is observed during spring cruise where the phytoplankton biomass, characterized by a typical post-bloom structure population, is mostly found in the subsurface waters (47).

The zooplankton community is characterized by a high diversity. In Autumn, it is composed mostly by Copepods (80,5%) followed by Chetognats, Ostracods, Appendicularia, Cladocera etc. Among the Copepods, neritic species were dominant.

In Spring the Copepods increase until to 87,5% and the community is composed essentially by typical mesopelagic species (47).

The Albanian coastal area is very beautiful and rich in natural values. Its landscape includes sandy beaches stretching over tens of kilometers of the Adriatic Coast and rocky shores along the Ionic coast. Dunes, lagoons, hills, mountains, forests and river outlets form unique natural scenarios, which together with the rich biodiversity of these areas constitute a rare natural wealth. Nature has given to this country a considerable number of lagoons, which we want to use in a rational way, saving them from uncontrolled exploitation. They are characterized by a very high biodiversity and productivity and play an important role with regards to the economic development of the country as a whole and the local level in particular.

A rapid process of total transformation of social and economic features, which is changing the uses of the coastal area, presently characterizes the coastal regions of Albania. The growing pressure of urbanization together with an intensive agricultural production and tourism growth along the beaches could give rise to some new impacts on

the coastal resources, in areas where degradation of the ecosystems has already been observed, caused in the past by land reclamation, mineral extraction and pollution by heavy industry.

1.7.2. Nature and severity of problems on the national coastline and coastal sea caused by land based activities.

Albanian coastal zone is the area where social-economic development in the past and nowadays, has been more intensive than in the rest of the country.

Climatic condition, natural and tourist resources, availability of the land and facility for communication with the Europe and the rest of the world, have always attracted the people from remote mountainous area of the country toward the coast. This phenomenon is more emphasized in the Adriatic coast because mountainous coast in the southern part of the coastal zone didn't support these developments. Country economic development felt dramatically in the early '90.

As a result of political changes, which accompanied countries of Central and Eastern Europe, most of Albanian industries were obliged to close down because they were not competitive in the market economy.

Mainly such industries as mineral production and their processing, was closed down or drastically reduced their production because the old technology and the high level of environmental pollution. The same happened with chemical, fertilizer, pesticides, plastics, paper, and other chemical industries. The industry of oil extraction and processing reduced significantly their production.

A similar situation can be described also for other industrial sectors as food and textile industries and most of them are closed down as well.

Due to the progressive decline of industrial production during the years after 1991, the quality of the rivers flowing in the Adriatic Sea, has been relatively improved, compared with the quality of these rivers before 1991, mainly regarding the inorganic contaminants.

Actually economic situation linked with industrial production has not changed significantly regarding reactivation of the mineral extraction and processing industry. The same situation was presented for the chemical industry.

Some developments although slowly are evident in the food industry as dairy, meat and its products, leather industry and alcoholic and non alcoholic drinks. All these activities are not organized in big production capacities and in many cases technology used is not contemporary.

These activities are mainly in the level of small and medium size enterprises.

A different picture presents social development during the last ten years, particularly in the coastal area. Many of the industrial activities closed down, are in the northern and northeast part of the country. People from these areas have migrated to the western part of the country mainly in the big cities like Tirana, Durres and other coastal area.

Actually about 60% of the Albanian population is living in the coastal areas. Environmental pollution including the coastal water was significantly diminished, because most of the industries are closed down, but there was an increase of urban pollution in the coastal area caused by the tourism development mainly in the Adriatic coast and by the increasing number of inhabitants in the main Albanian cities like Tirana and Durres.

During the last ten years tourist construction along the coastal zone are not preceded or accompanied by necessary infrastructure as water supply and sewerage, collection, transport and sanitary disposal of solid wastes. This situation has increased the amount of solid waste. The waste waters are discharged untreated into the surface waters and into the sea .

In fact, it doesn't exist any sewage treatment facility or urban solid waste treatment in Albania, including sanitary landfill, except for uncontrolled dumpsites.

After land privatization, agriculture production has been decreased rapidly. In one hand migration of people from the rural areas toward the towns and abroad and financial constrains to afford the expenses for agricultural production in the other hand, are main causes of the decrease of agriculture production. In this context the use of chemicals in agriculture is quite limited.

Most of these above mentioned phenomena remain in the level of observations. It is difficult to make quantitative and qualitative assessment in the respect to environmental pollution of the coast zone and marine environment.

Monitoring of environmental elements is not complete, neither in the space, nor in time and indicators, (including chemical/bacteriological content of sewage urban waters) because the financial constrains to which Albanian institutions are faced. The same happens with the studies for the environmental impacts in coastal zone and the marine environment from economic activities.

Summarizing what was described above; actual sources of pollution are mainly concentrated in the coastal area. Practically impact on the marine environment and the coast is caused by urban activities in these districts (map of districts).

1.7.3 Endangered marine areas from land based activities

The marine ecosystem, although almost certainly damaged by uncontrolled wastewater emissions of LBS, is still generally in a reasonable condition and its ecological and economic value may be considerable (25)(42)(28).

Socio-economic development of the country during the last ten years is reflected in the environmental situation of the coastal area too. The closure of many potential sectors of Albania economy during the first years of the last decade of twenty century, as mineral extraction and processing industry, metallurgical, chemical, oil extraction and processing, paper, and construction materials, caused a drastic decrease of industrial production. The new situation caused also a decrease of standard of life of the people mainly of that part of the people, which have been affected by the closure of working places.

This phenomenon was more emphasized in the north, northeastern, and southeastern part of the country where was located many of industrial activities and in particular mineral extraction and processing and metallurgical activities. In the same time the possibility for alternative sources for subsistence are still limited.

During the time span of the last ten years, the new phenomenon was borne; uncontrolled migration of the people from the above mentioned areas to the coastal zone including Tirana. In the outskirts of the main cities were constructed thousands of buildings without necessary infrastructure (roads, water supply, sewerage, collection, transport and disposal of solid wastes).

Erosion is one of the most problematic factors affecting more than 1/3 of the Adriatic coastline. Besides natural factors, it is favored mainly by human activities which consist of:

- building of dams for hydroelectric or agriculture use, which has reduced the quantity of the suspended matter transported by the rivers on the coastline;
- exploitation of the inert from the rivers bed for constructions;
- deviation of the rivers flow for bonifications or agricultural purposes.

Coastal zone in all its beaches "assailed" from illegal constructions, which was not preceded with urban plans and respective infrastructure, particularly regarding the collection and treatment of sewage water and urban and solid waste management. All the economic and social changes are reflected in the overall environmental situation of the country in particularly of coastal zone and marine environment.

Diversity of industrial pollutants, mainly from the chemical, metallurgical, oil and paper, are actually reduced in only some hot spots, which generate pollution, from the wastes accumulated during the years of work of respective industries.

In the other hand, as a result of increased number of inhabitants in the coastal zone, tourist and commercial activities, there is an increase of quantity and pollution load of wastewater, discharged in the streams, rivers, coastal lagoons and directly into the sea.

Particularly during summer, there is an increasing impact of human presence, mainly reflected on urban solids waste, along all the main beaches (Durrës, Vlora, Saranda, Divjaka, Shengjin, Velipoja) due to the high presence of tourists.

All lagoons system is more threatened in the long term by sedimentation, siltation, phenomena of hypertrophy anoxia, and domestic and industrial pollution (41)(18)(21)(33).

From the study on the content of the PCB-s in sediments and biota of Adriatic Coast was found that the level of total PCB-s in the coastal region was the lowest in the whole Adriatic Sea.(45)(44)

The changes in the model of consumption of the food products and goods, as well as the boom of their import, have increased and modified the amount and structure of urban solid waste.

In general the composition of this waste is not limited only to the domestic waste and commercial activities, but in almost all Albanian cities and towns, in the urban solid waste are included the wastes from other economic activities, materials from demolition and hospital waste as well.

Part of the cities and towns of Albania are not connected to the sewage network and part of the existing network is very old.

No sewage water treatment plant exists yet in the country and all waste waters are discharged untreated into the surface water and coastal waters.

Collection, transport and disposal system of urban solid waste is still far from human health and environmental protection parameters.

Actually in the most of cities and towns of Albania, the solid urban wastes are dumped in places not suitable from hygienic and environmental point of view. None of the dumpsites has been selected based on the environmental and health criteria. (14)(11)(13)

The leaches from dumpsites flow to surface waters and the groundwater, including the sea.

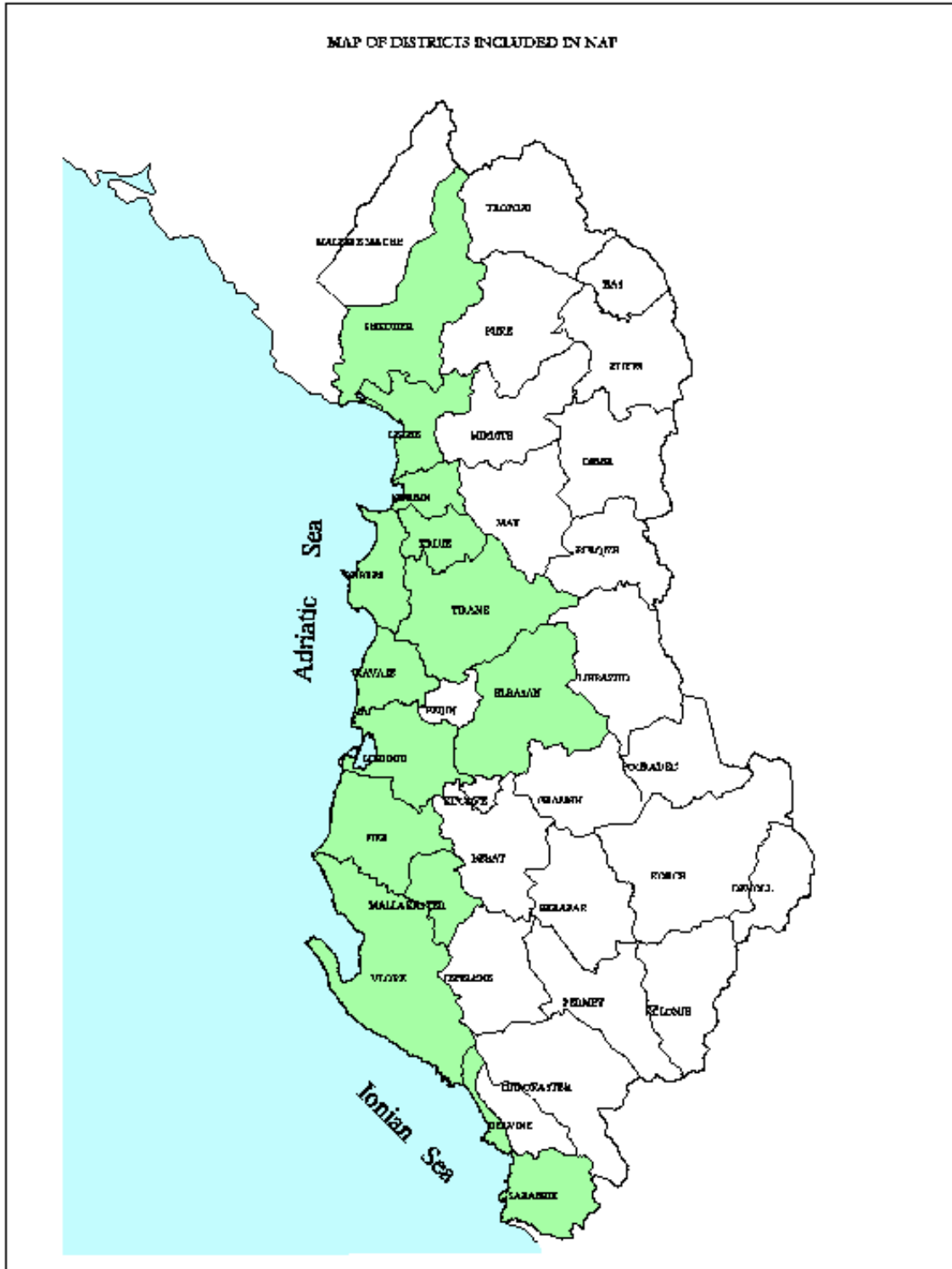
With new law on the competencies of local government entered in force in January 2003, the responsibility for urban sewage and solid waste management goes from the Ministry of Territory Adjustment and Tourism to the Municipalities and Communes. The draft law on waste management contains several strict provisions related to the responsibilities of local government to

waste management. A national program should be implemented at the existing dumpsites to reduce the pollution at the maximum extent possible, till the final closure.

The local government needs appropriate support in terms of human and financial resources, as well as for respective arrangements for institutional and legal regulatory framework to carry out his new management responsibility.

In the general context of the economic and financial difficulties that Albania has faced during these years of long transition, the financial support from the government for the environmental protection has been very limited. For this reason the studies on the impact of discharges from LBS in the marine ecosystem have been insufficient and the data on level of pollution and eventual degradation of this ecosystem are limited.

2. Priority Environmental Issues in the District Level and Planned Activities for their Management



2.1 District of Shkodra

The number of the inhabitants in the city of Shkoder is 85,798 (29).

From the performed assessment, the main contributors for pollution in Shkodra district are urban waste waters and urban solid wastes. Industry is not at that level such as to be assumed as a potential pollutant for the air or waters. Transport is the main sector for the air pollution in the city of Shkodra, even though the urban air quality indicators are still under the allowed level.

City of Shkodra has a sewerage network, which collects 85% of sewage water. The quantity of the sewage water is 10 000 m³/day. They are discharged without any treatment in the Shkodra lake.

Urban solid wastes are dumped close to Kiri riverbed, before its connection with river Drini. Amount of urban waste for the Shkodra town is 20 100 t/y and hospital waste 365t/y.

In the discharges of the district the share of the urban wastewater constitute 95% of BOD and total nitrogen, and 80% of total phosphorus. All other elements and compounds are fully deriving from the urban wastewater.

For the gaseous contaminants, except for VOC (volatile organic compounds) released from the production of the beer, all others are released from transport, commerce and household. The contribution of NO_x, CH₄, CO and SO₂ from commerce and household in the gaseous budget are respectively 8.25%, 5.7%, 1% and 45.5%.

Based on the objectives laid down in the Strategic Action Program to Address Pollution from Land Base Activities (SAP) and NEAP the following actions are planned:

1. In the city of Shkodra to be completed the sewerage system. Year 2008 MoTA&T, Local Government (LG), Donors;
2. In the town of Koplik sewerage system to be completed. Year 2010 MoTA&T, LG ;
3. In the commune of Velipoja sewerage system to be completed. Year 2010, MoTA&T, LG, Donors (LG), Donors;
4. Build up in the city of Shkodra urban wastewater treatment plant. Year 2010, MoTA&T, LG, Donors;
5. Build up in the town of Koplik urban wastewater treatment plant. Year 2012. MoTA&T, LG ;
6. Build up in the commune of Velipoja urban wastewater treatment plant. Year 2008. MoTA&T, LG, Donors.

Regarding the environmental management of urban solid wastes, the following measures are foreseen:

1. Preparation and implementation of programs for reduction at source and recycling of urban solid waste for the city of Shkodra. Year 2007. MoTA&T, MoE, LG;
2. Completion with containers for solid urban waste and transport trucks for the city of Shkodra, town Koplik and commune of Velipoja. Year 2008. MoTA&T, LG;
3. Designee and build up of the sanitary landfill for the city of Shkodra, town of Koplik and commune of Velipoja based on the criteria of EU. Year 2010. MoTA&T, LG, Donors.

2.2 Lezha District

The main contributors to pollution are urban waste waters and urban solid wastes. Both these sources are more emphasized during the summer season when Lezha's inhabitants number increases to few other thousands, due to the tourist flows to Shengjini beach.

The amount of sewage water from both towns Lezha and Shengjini, are respectively 1150 m³/day and 380 m³/day. Lezha sewage water is discharged in the different point along the Drini River. The last one, flows to the Adriatic Sea.

The sewage water of Shengjin town is discharged into the lake Kenalla, situated close to the Kuna-Vain lagoon.

The composition of the sewage water for the Lezha town is typical for the urban waste water but the load of organic and nutrients is less than other European countries. The COD is 168-240 mg/l; BOD 70-118 mg/l; TDS 0,36-0,77 gr/l; SS 50-346 mg/l; P-total 2.4-22.5 mg/l; N-total 16.04-34.02 mg/l and Total coliforms 431,000-17,900,000. Regarding the content of heavy metals in Lezha urban waste water as Pb, Cd, Zn, Cu all much lower than the German limits for discharging into sewerage (Regulation for indirect polluters).

The same situation is for the discharges for the sewerage system at Shengjini town: COD 160-164 mg/l; BOD 66-67 mg/l; TDS 0.375-0.8 gr/l; SS 28-102 mg/l P-total 12.2-13.75 mg/l; N-total 20.14-28.5

Urban wastewater discharges into the surface waters 98% of BOD and all other contaminants, except oil and fat which are discharged from the fish processing companies. The same companies release in the air hydrogen sulphide and trimetilamin

With the financial support of World Bank, the project is designed; the EIA is finished for the construction of an artificial wet land for treatment of polluted waters of Lezha and Shengjin. The implementation project is expected to start within 2005.

Amount of urban waste for the Lezha and Shengjini towns is estimated to 8760 t/y

Foreseen measures in the framework of SP are the following:

1. In the city of Lezha and town of Shengjin to be completed the sewerage system. Year 2008; MoTA&T, Local Authorities;
2. Design and build up of the urban waste water treatment plant (constructed wetland) for city of Lezha and town of Shengjin. Year 2009; MoTA&T, Local Authorities, Donors;
3. Preparation and implementation of programs for recycle and compost of urban wastes for city of Lezha and town of Shengjin. Year 2008; MoTA&T, Local Authorities, Donors;
4. Design and construction of the sanitary landfill for urban wastes of Lezha and Shengjin. Year 2008; MoTA&T, Local Authorities, Donors;
5. Construction of urban waste water treatment plants within the fish conservation factories, in order to secure the water discharges into surface waters within the allowed norms. Year 2008; MoA&F, Local Authorities.

2.3 Kurbini District

Main polluters for this district, besides urban ones are related to the historical pollution inherited from former Chemical - Metallurgical Plant in Laci. In its territory and store houses there are still technological wastes and a number of chemicals, biggest part of which are hazardous. Following, the plan of measures for cleaning up the urban pollution and the management out of risk of the other pollution identified in the district are submitted:

1. Environmental management of chemicals stock in the store houses of the former Chemical-Metallurgical Plant in Laci. Year 2006. MoI&E, MoE, Local Authorities;
2. Preparation and implementation of a plan for conservation without environmental and health problems of the wastes in the damp of the former plant, pyrite ashes and vanadium penta-oxid with arsenic content and other wastes in Laci. Year 2007; MoI&E, MoE, Local Authorities, Donors;
3. In Laci town the sewerage system to be completed. Year 2008; MoTA&T, Local Authorities, Donors;
4. The construction of the urban waste water treatment plant for the Laci town. Year 2013; MoTA&T, Local Authorities, Donors;
5. The construction of the sanitary landfill for sub-urban solid wastes of Laci town. Year 2010; Local Authorities, Donors.

2.4 Kruja District

Main environmental problems, after the measures undertaken by the cement factory of Fushe-Kruja to control air emissions, are related to urban waste waters and urban solid wastes for towns of Kruja and Fushe-Kruja. For these problems the following measures are foreseen:

1. For towns of Kruja and Fushe-Kruja, the sewerage system has to be completed. Year 2008; MoTA&T, Local Authorities;
2. Design and construction of the urban waste water treatment plants for Kruja and Fushe-Kruja towns. Year 2010; MoTA&T, Local Authorities, Donors;
3. Reconstruction and production capacity increase of the cement factory in Fushe-Kruja. Year 2006; Seament Co., MoTA&T.

The treatment and disposal of urban solid wastes is foreseen to be done by a common sanitary landfill for regions of Tirana and Durresi where Kruja is included.

2.5 District of Durres

Sewage network system cover 85 % of the Durresi town and through the open channel are discharged into the sea 6 km from the north part of Durres, in Porto Romano bay.

It is estimated that amount of sewage water is about 9.600 m³/day.

Chemical and bacteriological analyses of this water demonstrate the high level of pollution. In the samples taken along the open channel values were found, between: COD 256-280 mg/l; BOD 123-136 mg/l; TDS 1.348-1.445 gr/l; SS 305-335 mg/l P-total 26.9-27 mg/l; N-total 42.92-43.96 mg/l; Total coliforms 88,200,000-176,400,000.

Heavy metals are at the same levels as for the Lezha wastewater

In the frame of MEDPOL II some higher levels of Cd and Pb have been found in the Durres harbor. With the actual knowledge the only explanation about their origin is the activities in the harbor.

Generation of urban solid waste for the Durresi town is 54,750 t/y and hospital wastes 182 t/y. These wastes are dumped in Porto Romano, in an area near the sea. No waste treatment exists and the burning of the waste is a very usual phenomena. Leaches are flowing through the same channel to the Porto Romano Bay.

Urban solid waste of Shijak and Sukthi town are dumped along the banks of the Erzen River, which increase the level of pollution of this river.

In Porto Romano area has been located the former chemicals industrial plant, closed down in 1991. The area includes some square km polluted from hazardous chemicals and wastes. In this plant was produced chromium VI salts, pesticide (as lindan, thiram) and other organic and inorganic compounds. The area is considered by UNEP one of the most dangerous hotspots in the Balkans.

Surveys have found in groundwater samples a level of chlorobenzen 4000 times higher than the acceptable level for drinking water

Sample of milk showed beta-HCH concentration, 100 times higher than acceptable EU thresholds. Rainwater flows from this polluted area through the pump station, which collects the sewage water of Durres city, run into the sea,. Beside other contaminants in marine samples taken in the Porto Romano bay have been found high concentrations of PCB (DDT) and heavy metals.

As in the other coastal cities/towns of the country, the main contributors to water and air pollution are urban wastewater and transport, respectively. However the pollution caused from the chicken breeding, compared to other districts, is significantly high. Its contribution to the overall water pollution of the district of Durresi is 34 % for the BOD, 34 % for the total nitrogen and 74 %for the total phosphorus.

Regarding the contribution of emissions from the trade and household sectors against the total district emission for the NO_x, CH₄, CO and SO₂ is respectively; 5.6 %, 3.8%, 0.65% and 22.4%. Transport is the main contributor to air pollution.

A feasibility study and detail design for the sewerage system in Durres has been completed. It has also finished the study and it has begun the implementation of the project for the urban waste water treatment of Durresi. The selected technology is that of "constructed lagoons". The plant will realize a reduction of organic pollution referring to BOD₅ as much as 85%.

1. The completion of the sewerage system for Durresi and Plazhi beach. Year 2007; MoTA&T, Local Authorities, Donors;
2. The construction of the urban waste water treatment plants for Durresi. Year 2009; MoTA&T. Local Authorities, Donors;
3. Chicken industry waste treatment. Year 2006, Respective industries, MoA&F, Local Authorities.

Regarding the environmental management of urban solid wastes, the construction of the sanitary landfill for the regions of Durresi and Tirana has been proposed:

1. Design and implementation of the programs to reduce wastes at source and recycle and/or compost them. Year 2007; MoTA&T, Local authorities;
2. Completion with containers for urban solid waste sand transport trucks for Durresi and Plazhi beach. Year 2007; MoTA&T, Local Authorities;
3. Design and construction of the sanitary landfill for regions of Durresi and Tirana. Year 2009; MoTA&T, Local Authorities.

Measures to encapsulate the toxic wastes of the former chemical plant in Porto Romano and isolate them from the other territory shall consist in:

1. The feasibility study for the remediation of the hot spot in Porto Romano has to finish. Year 2005; MoE, Donors;
2. Removal of the identified families who live in the contaminated area. Year 2005; MoE, Local Authorities;
3. The study concerning the health impact of the identified pollution in the area of Porto Romano has to finish. Year 2006; MoH;
4. Construction of the landfill for the disposal of toxic waste and other contaminated constructing materials coming from the demolition of the buildings of the former chemical plant in Porto Romano. Year 2006; MoE, Mol&E, Local Authorities, Donors;
5. The removal for disposal in one EU country of the liquid hazardous chemicals and wastes stock in the former storehouses of Bishti i Palles. Year 2005; MoE, Donors.

Health care wastes of the Durrresi district will be treated in the proposed incinerator to be built in Tirana, which is supposed to serve to a certain number of health centres of the central part of Albania.

2.6 Tirana District

The district of Tirana is situated in the center part of the country. The district area is 1.238 km² and the population is 519,720 inhabitants. Tirana city itself has 352,581. The district itself has not access to the sea. Tirana is the main center of economic and commercial activities.

Tirana is the most populated city in the country and as a consequence, the one bearing the most complex environmental problems. This district, reflects all the priority environmental problems identified in the coastal area.

Despite the fact that the capital is the biggest industrial city in the country, the biggest pollution comes from the residential discharges and its trade activities: these are responsible for more than 90% of BOD.

Industrial discharges are responsible for the big amounts of chromium from the tanning industry activities, which are estimated to contribute by more than 50% of the total amount of the whole coastal area.

More than 1/3rd of the auto cars of Albania or around 100 000 of them run daily in Tirana. Along with the transport sector, streets dust and construction sector are the other contributors to air pollution.

The sewerage system covers only 89 % of the urban discharges of the city. In this system like in the other cities of the country are discharged even the waste waters from the other socio-

economic activities. The volume of industrial discharges is also increased due to the enlargement of the industrial area around the western part Tirana city.

The discharge of waste waters without any prior treatment in the rivers of Lana, Tirana and Ishem, make these rivers among the most polluted ones in the country.

The plan for the cleaning up the urban waste waters of the capital includes:

1. The completion of the sewage system for urban waste waters of Tirana. Year 2008; MoTA&T, Local Authorities, Donors;
2. Construction of the urban waste water treatment plant. Year 2010; MoTA&T, Local Authorities, Donors (JIBIC);
3. Technological improvements and other technical measures to reduce the chromium and other contained discharges from the tanning industry. Year 2006; MoE, Mol&E, Local Authorities;
4. The contraction of the waste water treatment plants within the industrial activities by the industrial subjects in order to ensure the compliance with the allowed norms for water discharges. Years 2006-2010; Industries, MoE, Mol&E, Local Authorities.

Tirana is the main generator of urban solid wastes in the country, with an estimate amount of 150.000 t/year, being at the same time the biggest emitter of the toxic gases from the open dump. The dumpsite, only few km from Tirana, was not selected and constructed based on the criteria for protection of human health and environment.

The self burning of the wastes is a constant phenomenon over the year. It is estimated that the amount of the dioxin emitted into the urban air from the Tirana dump (Sharra) is nine times higher than that emitted from the dumps all over the coastal area. This situation is due to the lack of the environmental technologies for waste disposal. For the above reason, Sharra is classified as one of the five most problematical environmental hot spots of the country (UNEP Study).

The quantity of dioxins and furans emitted into the air from burning waste, may reach as high as 7-27 gr TEQ/y, which has to be compared to an estimated total emission of 12.1gr TEQ/year dioxins and furans emitted to the air for the whole of Albania. In other words, the burning of the waste at this single source (Sharra dumpsite), is affecting the air quality with up to twice the effect from the whole of Albania (10). The estimation made for the City of Tirana (the amount of PCDD and PCDF released from Sharra dumpsite) was calculated as the average of the two extreme above mentioned values (7 + 27); 17 gr TEQ/year.

Dumpsite effluents may be leaching into groundwater and contaminating the river nearby.

The amount of hospital waste is 1680 t/y from which only 20% are hazardous waste, while the rest can be classified as municipal solid waste.

Some studies have already been carried out for the remediation of Sharra damp, establishment of techniques and technologies to environmentally manage the urban wastes, selective collection of wastes, recycling or composting. An interesting option from the technical and financial point of view is the possibility to build up a controlled sanitary landfill common for the regions of Tirana, Durrresi, Kavaja, Shijaku, Kruja, Fushe-Kruja, Vora, Kamza and other communes nearby them.

The management of health care wastes is also far from the environmental and health protection criteria. The construction of a modern incinerator for hazardous wastes of the health centres of Tirana, Durrresi and at least of the other towns included in the respective regions is a time imperative.

1. Construction of the landfill for the regions of Tirana and Durrresi. Year 2008; MoTA&T, Local Authorities;
2. The implementation of the Sharra projects which aims at the site remediation up to the closure within next five years. Year 2009. MoTA&T, MoLA&D, Local Authorities, Donors (Italian Cooperation);
3. Design and construction of the incinerator for the health care wastes of the regions of Tirana, Durrresi and Elbasani. Year 2007; MoH, Local Authorities, Donors;
4. Implementation of programs for reduction at source of the waste generated and the possible recycle of glass, metals, plastic, paper, etc. Year 2006; MoTA&T, MoE, Local Authorities;
5. Study of the possibilities to compost organic wastes for usage in agriculture. Year 2006; MoA; Local Authorities.

2.7 Kavaja District

The environmental problems for this district are waste waters and urban solid wastes. The tanning industry is also a potential source of industrial pollution by chromium.

The urban waste water treatment plant is towards its completion and will decrease the organic pollution to 85%.

Urban solid wastes are foreseen to be treated together with those of Tirana and Durrresi in a sanitary landfill. For the urban waste water and industrial discharges the following are planned:

1. The completion of the sewage system for Kavaja and Golemi beach. Year 2006; MoTA&T, Local Authorities, Donors;

2. The construction of the urban waste water treatment plant for Kavaja and Golemi beach. Year 2005; MoTA&T, Local Authorities, Donors;
3. Technological improvements and other technical measures to reduce the chromium content of water discharges by the tanning industries. Year 2006; MoI&E, MoE, Local Authorities.

2.8 Elbasani District

The District of Elbasan is located in the middle of central part of Albania. This district has no access to the sea. The district area is 1372 km² and the number of inhabitants 221,635. The district has been one of the country's most industrialized one. Before the year 1991 many industrial activities have been operating in the district such as metallurgical, chemical, cement and oil processing.

After the closing down of Metallurgical-Chemical Complex in Elbasan, the major source of concern is possible soil and groundwater contamination caused by the disposal of about 2 Mio tons of solid waste. The waste, tailings and dust from coke production, contains heavy metals. During the period when the complex was operational, waste was transported via a pipeline to a dumpsite fifteen kilometers away. The dump drains into a small river and ultimately in the Shkumbini River. Contamination of the ground water and local wells with heavy metals might be expected, if it has not occurred yet.

Regarding urban solid waste they are estimated at the amount of 36 500 t/y and hospital waste 70 t/y.

Discharges from the steel, ferro-chromium and cement industries have caused the fact that unlikely the other districts of the coastal area, the specific weight of SO₂ emitted into the air by industry is higher than that emitted by the transport sector. This pollutant accounts for 93,2% of the total emissions into the air at district level. While NO_x emissions in Elbasan account for 47,6% of the total emissions of this specific gas in the whole coastal region.

Regarding the emissions of PCDC/PCDF, due to the industrial activities, the district of Elbasan is listed second after the district of Tirana.

Regarding the waste water discharges, the situation is similar with that in the other districts of the coastal area. BOD from the urban waste waters covers 98 % of the total at district level.

Projects foreseen for this district are:

1. The completion of the sewage system for Elbasan Year 2008; MoTA&T, Local Authorities, Donors;
2. Construction of the urban waste water treatment plant for Elbasan. Year 2012; MoTA&T, Local Authorities, Donors.

Regarding the management of the urban solid wastes, the following interventions are foreseen:

1. Construction of the sanitary landfill. Year 2008; MoTA&T, Local Authorities, Donors;
2. Implementation of programs for the reduction at source of the generated wastes and recycle of the glass, metals, plastics, papers in the Elbasan city. Year 2006, MoTA&T, MoE, Local Authorities.

Hazardous wastes of the healthcare centres of this district are foreseen to be disposed off at the incinerator which is proposed to be built in Tirana.

Regarding the industrial discharges:

1. Ferro-Chromium production plant in Elbasan:
Old technology of ferro-chromium production with closed furnaces, which are even the source of the main emissions of pollutants into the air is being gradually replaced with the technology with open furnaces, system which helps to control the emissions within the allowed norms. Plant has to implement the Decision of the CM for temporary norms of emissions into the air. Year 2006;
2. The steel production plant in Elbasan:
The plant has to install the filters system in all technological noodles which emit into the air and implement the Decision of CM regarding the temporary norms for the air emissions. Year 2007;
3. Cement factory has to implement the legislation for air emissions within Year 2005.

2.9 Lushnja District

In this district as in most of the districts of the country in general, and those of the coastal area in particular, the main environmental problems identified even in the NDA study are related to urban waste water and the management of urban solid wastes.

In the Lushnja district a special care is given to Divjaka town, which is in the nearby of the coastal lagoon of Karavasta, whom is given the status of protected area and has been registered in the Ramsar list. Very close to it stands the Divjaka beach, which is increasingly attracting people for holidays during the summer time.

A specific problem in Lushnja remains the amount of round 500 tons of un- usable chemicals inherited from the plasmas industry of the past. Among the outdated chemicals one may expect substances containing Pb and Cd and other toxic ones.

In order to solve the environmental problems which concern this region the following measures are foreseen:

1. Completion of the sewage system of Lushnja and Divjaka. Year 2008; MoTA&T, Local Authorities, Donors;
2. Construction of the waste water treatment plant for Lushnja and Divjaka. Year 2011; MoTA&T, Local Authorities, Donors;
3. Construction of the sanitary landfill for urban solid wastes of Lushnja and Divjaka. Year 2009; MoTA&T, Local Authorities, Donors. (the possibility to construct a common one for Fieri and Lushnja has to be studied);
4. Preparation and implementation of a plan for the management out of risk of the hazardous wastes and outdated chemicals stored within the territory of the former plastic factory in Lushnja. Year 2006; Subject who is the owner of the chemicals, Local Authorities, MoI&E, MoE.

2.10 Fieri District

This district is situated in the western part of the country, bordered with Adriatic Sea. The area of the district is 785 square kilometers and the number of inhabitants 199,082.

This district belongs among those who have had a very heavy industrial profile before 90s (last century). From the industrial activities left over from that time and which do have a considerable impact on the environment are the oil refinery and the thermo power plant, which however work nowadays with reduced capacity.

According to UNEP study, there are two identified environmental hot spots in the area: oil field in Patos-Marinza and the former chemical plant in Fieri. The first is responsible for the pollution of an area at least 200 km² due to the oil leakages from exploration 2.000 oil wells during a period of more than 6 decades. It is estimated that from the actual production of crude oil 1-2 % are leaking into the field. Probably Sulfurous gas and hydrocarbons emissions are polluting the surrounding atmosphere and oil is contaminating the ground water..

The second hot spot in this district is the former fertilizer plant near city of Fier. Safe disposal of the arsenical solution waste generated from the industrial processes at the former ammonium nitrate production plant in Fieri has been studied and realized through an EU project, which is being completed. According to this project, the arsenic solution (850 m³) will be first solidified and then exported to an EU country to be safely treated and disposed off. Besides, a contaminated area of around 3000 m² will be cleaned up together with the contaminated equipment, where the arsenical solution is currently stored. The project is expected to finish within the first half of 2005.

Besides the air emissions coming from the thermo power plant, another contributor to the air pollution in Fieri is transport sector. On the other hand, Fieri like the other districts is suffering by

the lack of urban waste water treatment plant and the urban solid wastes, which are simply thrown in open dumps without respecting any environmental protection criteria.

Even though Fieri is still more developed from the industrial point of view, as compared to many other districts in the coastal area, regarding water discharges, the main contribution to the biodegradable organic substances comes from the urban waste water, which covers 90% of the total BOD discharged into the surface waters by this district.

The amount of urban solid waste for Fieri and Patos towns is estimated to be around 40,000 T/y.

Regarding the air emissions, emissions from the industrial activity of the thermo power plant, oil refinery and the emissions from the Patos-Marinza oil field are the main sources of the air pollution, contributing with more than 40 % of the total amount of SO₂, 41 % of the total amount of CH₄ and around 30 % of the total amount of VOC generated by the whole coastal area.

In order to reduce the air emissions and water discharges, the following projects are foreseen for Fieri district:

1. Completion of the sewage system for Fieri. Year 2008; MoTA&T, Local Authorities, donors;
2. Construction of the urban waste water treatment plant for Fieri. Year 2011; MoTA&T, Local Authorities, Donors;
3. Design and implementation of programs to reduce waste generation at source, to recycle and compost the organic wastes within Fieri. Year 2007. MoTA&T, Local Authorities, Donors;
4. Completion with containers for solid urban waste and transport trucks for Fieri. Year 2007;
5. Construction of the sanitary landfill for Fieri (perhaps a common one with Lushnja). Year 2008; MoTA&T, Local Authorities, Donors;
6. The implementation of the arsenical solution project as explained above. Year 2005; MoTA&T (Waters PMU), MoE, Mol&E, Local Authorities, Donors;
7. Technological improvements in the thermo power plant and oil refinery in order to reduce the air emissions and water discharges aiming at the compliance the allowed norms. Year 2008; Mol&E, MoE, Local Authorities;
8. Design and implementation of a program to stop oil leakages from the in use wells and the remediation of the contaminated territory from oil exploration in Patos Marinza. Year 2006; Mol&E, Albpetrol, MoE, Local Authorities, Donors.

2.11 Mallakastra District

The main environmental problems in the district are related to the pollution discharges into environment by the oil refinery in Ballsh. Actual production is 300,000 ton/year refined oil. According to management, leakages during the production process are approximately 7%.

All over the year, River Gjanica is polluted with free phase oil and other chemicals. Local water supplies are probably affected. Thousands of m³/day of hazardous gases is emitted in atmosphere.

This refinery is responsible for the air pollution, emitting respectively SO₂ and NO_x in the amounts of 99% and 82% of the total at district level, as well as 50% of VOC emitted from all districts included in the coastal area. The Ministry of Environment has made the project proposal and the EU approved the funds for a project on technological improvements in Ballshi oil refinery to establish a desalting unit and to build up a landfill to dispose off the sludge and other wastes in the surroundings of the refinery. The implementation of the project is expected to start by the second half of 2005.

Regarding the urban waste water and urban solid wastes, the situation in Mallakastra district is similar with that of the other districts.

Proposed measures are:

1. Completion of the sewerage system of Ballshi. Year 2008; MoTA&T, Local Authorities.
2. Construction of the urban waste water treatment plant for Ballshi. Year 2012, MoTA&T, Local Authorities, Donors;
3. Design and implementation of programs to reduce waste generation at source, to recycle and compost the organic wastes within Ballshi. Year 2008. MoTA&T, Local Authorities, Donors;
4. Completion with containers for solid urban waste and transport trucks for Ballshi. Year 2007;
5. Construction of the sanitary landfill for Ballshi. Year 2010; MoTA&T, Local Authorities, Donors;
6. The implementation of the remediation project in Ballshi oil refinery. Starting year 2005; Mol&E, MoE, Local Authorities, Donors.

2.12 Vlora District

Vlora has also been one of the most industrialized districts in Albania before the '90 ies. Nowadays, the former chemical industry of PVC has been transformed into an environmental hot spot, which needs urgent remediation, since it generates mercury and its polluting compounds. The environmental issues of this hot spot can be summarized as follows:

- It is located 4 km north of Vlora city;
- The soil and demolition materials of former chemical plants are contaminated with mercury;
- From a survey it was found that Hg content in the soil is 1000 times higher than the EU thresholds;
- It is quite likely that after dangerous pollutants remain in the soil around the plant area.
- The high levels of Hg were found also in the sea sediment near the coast;
- Few hundred people are living in the area.

Urban waste waters and urban solid wastes together with air pollution caused mainly by the transport sector are the main environmental problems, which do require urgent interventions to be solved. Urban waste waters contribute with 93% of BOD; 91,5% of N_t and 73% of P_t of the total general amount of these pollutants discharged at district level. Construction of urban waste water treatment facility will decrease the burden of BOD_5 up to 85%.

The following list indicates the plans foreseen for this district:

1. Completion of the sewerage system for Vlora. Year 2006; MoTA&T, Local Authorities, Donors;
2. Construction of urban waste water treatment plant for Vlora city. Year 2008; MoTA&T, Local Authorities, Donors;
3. Design and implementation of programs to reduce waste generation at source, to recycle and compost the organic wastes within Vlora. Year 2007. MoTA&T, Local Authorities, Donors;
4. Completion with containers for solid urban waste and transport trucks for Vlora and Vlora beach. Year 2007;
5. Completion of the feasibility study and based on it the construction of the sanitary landfill for Vlora. Year 2008; MoTA&T, Local Authorities, Donors;
6. Completion of the feasibility study and the implementation of a program for soil clean up from mercury within the territory of former chemical plant in Vlora. Year 2008; MoE, Mol&E, Local Authorities, Donors;
7. The compliance with the environmental legislation by the side of industrial subjects in the Vlora District. Year 2005; MoE, Mol&E, Local Authorities.

2.13 Saranda District

Main environmental problems identified in BB and NDA studies in Saranda are related to waste waters and solid wastes. The intensive tourist development calls for the urgent solution of the above problems.

Water treatment system: an artificial wetland is planned to be constructed in Saranda, as well. The BOD₅ in the effluents discharged from the wetland will be reduced by 85%. The works are foreseen to start within 2005 and the completion of the work is planned for the year 2007.

In order to solve the main environmental issues the following interventions are proposed:

1. Completion of the sewerage system for Saranda. Year 2006; MoTA&T, Local Authorities, Donors;
2. Construction of the waste water treatment plant for Saranda. Year 2007; MoTA&T, Local Authorities, World Bank/GEF;
3. Completion with containers for solid urban waste and transport trucks for Saranda. Year 2007;
4. Construction of the sanitary landfill for Saranda. Year 2007; MoTA&T, Local Authorities, Donors.

3. NATIONAL ENVIRONMENTAL PRIORITY ISSUES OF COASTAL ZONE

3.1 Urban Waste Water

The situation regarding sewage is critical. Because of the economic crisis, the waste-water collection and treatment infrastructure has not been maintained and has not developed quickly enough to cope with the increasing flow of discharged pollution. In urban areas the poorer neighborhoods have no access to the sewerage system.

Urban waste waters are discharged untreated into the surface waters including the coastal waters. This may have caused pollution on the ground water as well, but this is not investigated yet.

Also the intensive tourist construction during last 10 years, without appropriate infrastructure, has caused a significant pollution in the coastal beach with particular reference to the Durresi beach which is as long as 20 km. Although no contemporary monitoring system for water quality is available in the beach areas, it is well known that bacterial pollution is always present in the summer time. This is to be expected since no sewage treatment facility exists yet.

Actually there are projects for the rehabilitation and extension of the sewerage systems in all towns of coastal zone and construction of sewage treatment plants in Lezha, Shkodra, Saranda, Durres, Kavaja.

For Lezha, Durresi, Saranda and Vlora are completed the feasibility studies, EIA and detailed designs for clean up the wastewater of these cities. For town of Kavaja the sewage treatment plant is under construction.

According to the above mentioned projects, the quality of effluents from the treatment plants is envisaged to be in compliance with EU Standards.

Referring to the requests of the Strategic Action Plan for protection of Mediterranean Sea from the LBS and based on the on-going projects and those planned to start soon, Albania, within the year 2010 is expecting to have treatment plants for urban waste water in coastal towns, including those with less than 100 000 inhabitants.

3.2 Urban Solid Waste

In the past years, migration from rural to urban areas has considerably increased and this has resulted in generation of more municipal waste. The annual average increase in municipal waste

generation during last years was between 8-10 % in the big cities. Only about 50-70 per cent of urban waste is taken to landfills; the rest is simply dumped illegally.

According to 1999-2000 data from the Ministry of Environment, municipal waste generation stood at 0.7 kg/inhabitant/day or 255 kg/inhabitant/year in the main cities. This figure is comparable with municipal waste generated per capita in the countries in transition.

In most cities waste is collected and transported by a municipal or privatized waste management service company. Rural areas are not yet covered by municipal waste management services. The main components of municipal waste in the biggest cities are inert material, plastics and vegetable scraps.

Disposal of municipal waste requires a solution. All municipal waste, including waste that is collected and transported, is deposited at uncontrolled landfills that in many cases are illegal. There is no inventory of such sites. Waste is also burned in open areas. Smoke containing toxic substances (dioxins, furans) is a source of serious air contamination.

There is no waste management, no control and no monitoring. There are no facilities for sorting, processing or recycling municipal waste. Some sortings of glass bottles (only bottles, not pieces of glass), paper and cardboard, copper scarp take place. Steel scrap is sent to the Elbasan metallurgical plant. Glass bottles are collected, sterilized and reused by alcoholic or non-alcoholic drinks companies. Paper and cardboard are sorted only in small quantities at a paper-recycling plant in Tirana, where they used to be sent before the facility became subject to privatization. Aluminum cans are usually exported for reprocessing to neighboring companies, and a very small share goes to a small private Albanian smelter.

Villages are not covered by any municipal waste management service, and they have no landfills that meet environmental requirements. Waste is dumped on any available site in the village or nearby. There are no enterprises to collect, transport and dispose of the municipal waste in rural areas. There are no facilities for municipal waste incineration on an industrial scale.

A similar situation to the urban waste water was inherited from the past regime also for the management of urban solid waste. A National Waste Management Plan was carried out in 1997. The Plan included detailed designs for six sanitary landfills. Among the towns covered by these designs are Shkodra, Lezha, Fieri and Elbasani.

NEAP-2002 envisaged the detailed designs and construction of landfill for Tirana, Durrës, Kavaja and Lezha.

Detailed designs and build up of new landfills will be done in the compliance with EU Directives for urban waste management and the Guidelines of UNEP/MAP on the Coastal Litter for the Mediterranean Region.

3.3 Air Pollution in the Regions of Coastal Area

After the political changes at the beginning of the '90s, due to closure of the most important domestic industrial activities in the country, which were at the same time the biggest sources of air emissions, air pollution decreased considerably.

At that time a new environmental problem appeared: increased air pollution generated mainly by the urban transport sector, construction activities and the miss-management of urban solid wastes.

The import during last 15 years of around 300 000 autocars and vehicles, mostly second hand ones, from which around 80% are based on diesel, as well as the poor quality of fuel, (both domestic and imported) has caused a progressive decrease of urban air quality in the main cities of the coastal area.

Based on monitoring data; contaminants for main coastal towns (Fieri, Durrresi, Vlora and also Tirana and Elbasan), are particulate matters and PM10. This two indicators excide the Albanian standards for air quality, while other gaseous contaminants as SO₂, NO₂, O₃, Pb, are lower than figures of standard, as is demonstrated in the table.

Another contributor of the air pollution is the ever-growing construction sector and civil works, which often do not respect the environmental standards; as well the bad quality of streets and roads within the urban areas contributes to the amount of dust in the urban air. The non-compliance with the environmental conditions in the respective contracts and permissions from the part of the companies which clean the cities is also another important factor which contributes to the decrease of urban air quality.

These phenomena are obvious in the main cities and mainly in the capital of the country, Tirana, where construction and other human activities are concentrated. Here, the number of cars circulating daily exceeds the 100 000.

Even though it is rather difficult to discuss based on real figures (related to space, time and indicators) for the exact sources of air pollution in Albania, due to the lack of a national inventory on air emissions, the air quality monitoring data published by the Ministry of Environment in the periodical State of the Environment Reports show that a progressive increase of specific polluters, characteristic for air emissions from autocars is currently evident in the urban air of the main cities included in the coastal area.

The levels of PM10 in the urban air in Tirana are currently several times higher than the allowed limits for the urban air quality according to the Albanian legislation of 2003 (Decision of Council of Ministers, No. 803, dated 04.12.2003 "On allowed standards of air quality"). Around the allowed limits are other pollution indicators such as NOx and ozone. A similar situation is also in other big cities like Elbasani, Durresi, Fieri and Vlora. In Elbasan, due to the heavy industrial activities, the air pollution is mostly related to the air emissions coming from stationary sources placed in this city and its surroundings.

3.4 Hot Spots

Albania has 9 hot spots, 5 of which need immediate intervention. The priorities related to their rehabilitation as main environmental priorities, has been identified by UNEP and the updated National Environmental Action Plan.

Measures and remediation regarding environmental cleanup are foreseen in the main recent policy documents, such as the National Environmental Action Plan, Action Plan for the Implementation of the European Partnership with Albania, Environmental Performance Review and the National Strategy for Socio-Economic Development. International financial assistance and also state budget have been provided for feasibility studies, projects and interventions for hot spots in Porto – Romano in Durres, Chlor-Soda-PVC in Vlora and Sharra-Tirana landfill, former Fier Amonia Factory, Oil Refinery at Ballsh, etc.

- Durresi

Upon the request of the Albanian Government an environmental assessment was undertaken by UNEP indicating that the key environmental issues in Durresi (former chemical plant in Porto Romano) are soil and water contamination (pesticide and heavy metals contamination). Based on that with funds provided by World Bank a feasibility study is expected to finish by June 2005, which will realize the following objectives:

- Durres Environmental Remediation Program, including investments in clean up and closure of the former chemical plant, dumpsite and chemical storage area; implementation of a long term environmental monitoring program; implementation of a resettlement and/or compensation program and development of a land use plan and divestiture of assets where feasible;

- Technical assistance for institutional strengthening and capacity building of the Ministry of Environment and other local authorities in Durres.

Based on the results of the above mentioned study, MoE has started with the implementation stage, by providing small funds to build a part of the encapsulating wall around the defined contaminated site. This action will be followed by World Bank and Dutch Government to implement the entire project up to the clean up of the site.

- Vloora

Nowadays, the former chemical industry of PVC has been transformed into an environmental hot spot, which needs urgent remediation, since it generates pollution of mercury and its compounds. Financially supported by UNEP – MAP, a pre-investment study on the remediation of the mercury site and on the plan for solid waste management of Vloora municipality is currently on. The implementation phase will ask for donors' funds.

- Tirana

Tirana is the main generator of urban solid wastes in the country, with an estimate amount of 150 000 t/year, being at the same time the biggest emitters of the toxic gases from the open dump in Sharra where are supposed to be disposed off the solid wastes. The dumpsite is only few km from Tirana and the site was not selected and constructed based on the criteria for protection of human health and environment. The self burning of the wastes is a constant phenomenon over the year. For the above reason, Sharra is classified as one of the five most problematical environmental hot spots of the country (UNEP Study).

To solve the problem a feasibility study is done (a medium term one, which finished in 2003) with funds from UNEP, SIDA, Albanian Government, etc. Based on these studies an agreement with the Italian Government is signed. Italian government will support, the implementation project in Sharra aiming at the remediation of the site up to the safe closure within a period of five years.

3.5 Waste Waters and Solid Wastes from Industrial Activities

Industrial discharges are present in almost all regions of the coastal area. However it should be stressed the fact that most of industrial activities belong to the alimentary industry, with small and medium size enterprises. Their discharges go directly into the urban sewage network. Actually, only few important industries contribute to a high level of pollution of land, water and air.

In the BB and NDA studies have been identified the specific industries as per regions where they are active. Each of these industries will be object of separate treatment within the respective region.

3.6 Pollution coming from Mercury, Cadmium and Lead

As it is already presented in the NDA and BB studies, there are no available data on the environment pollution from elements and compounds based on mercury, cadmium and lead.

Despite of the lack of analytical data for these elements, one can refer to the fact that no industrial activity has ever existed neither in the past, nor nowadays which might generate environmental

pollution from these elements. There is only one exception: the former chemical plant in Vlora which has been closed in 1990.

Within the territory of the former-chlorine alkali factory in Vlora, some partial studies have been carried out, while actually a full pre-investment study financed by UNEP/MAP is expected to finish by 2005. The project aim is to remediate the area and manage the solid waste of the Vlora Region. The study includes even the analysis of the coastal waters nearby the former factory. At the same time, a pilot plant has been established in the area to demonstrate the possibility of clearing the sands and other solid materials contaminated with mercury. According to UNEP Study "Post-conflict environmental assessment – Albania", the area of the former-chlorine alkali factory in Vlora is considered as "hot spot".

More information on this issue can be found in the paragraph dealing with Vlora Region.

Regarding the contamination of the coastal area by lead and its compounds, there are no industrial activities which might cause it in soil, water or air.

The same holds true for cadmium, since there is no such industry in Albania. The BB study shows that a total amount of 120 kg/year Cd is emitted into the air and water from urban waste waters, oil industry, ferro-chromium industry and cement production. Main part of the amount is coming from the urban waste waters. The construction of urban waste water treatment plants will help reducing the cadmium amount going into surface waters, including the coastal ones.

The contamination coming from lead and cadmium of the batteries (including accumulators) will be dealt with in the respective chapter.

Regarding the new industrial activities, foreseen to be developed in the future and which might cause the environmental pollution by mercury, cadmium and lead, the allowed norms for air emissions approved in 2002 and the allowed norms for water discharges approved in 2005 (both sets regarding air emissions and water discharges are in line with EU norms), will avoid the environmental pollution by these elements.

As a conclusion, one may say that the future economic developments, including the industrial activities, shall not cause pollution by these elements beyond allowed limits.

3.7 Pollution by Chlor-Organic Compounds

No inventory exists yet for types and respective amounts of chlor-organic compounds used in Albania. Still, following the literature data on industrial usages of this category of chemicals one may say that their usage in Albania is very limited.

This is due to the fact that no industry exists in Albania, which uses or produces chlor-organic compounds like as pharmaceutical products, PVC, pesticides, magnesium, paper, etc.

Regarding the usage of these chemicals in agriculture for plants protection, in general their usage is limited due to the decrease of the agricultural products and due to the fact that their price is too high to be afforded by the Albanian farmers. According to the statistics of the Ministry of Agricultural and Food, the total consumption of the insecticides and fungicides in 2000 in Albania has been less than 250 tons, from which 20 tons are 2.4 D (chlor-organic). (MoA&F, Annual Report, 2002, pg. 59).

Relating with the usage of the chlor-organic compounds for wood preservation, inks production and dry cleaning, there are no specific data available.

In order to implement the obligations undertaken by the SPs, the following measures are foreseen:

1. The updating of the analytical inventory of the chlor-organic pesticides in use or stored. Year 2006; MoA&F, Mol&E;
2. The preparation of the National Chemicals Profile in accordance with UNITAR Model. Year 2006; MoE through the Institute of Environment, other line Ministries;
3. The preparation of the inventory of the chlor-organic compounds used for inks production, wood preservation, dry cleaning. Year 2006; MoE, Mol&E;
4. The design and implementation of a program to reduce the usage of chlor-organic compounds in the economical sectors, where measures how to substitute them with less toxic chemicals have to be included. Year 2007; MoE, MoA&F, Mol&E.

For chlor-organic compounds, inherited wastes from the former chemical plant in Durres, closed up since 1990 more information could be found in the respective place in the material treating the Durresi Region.

3.8 Lubricants Oils, Batteries, Hazardous Chemicals, Hazardous Waste and Health Care Wastes

a. No precise information is available on the amount of used lubricants oils and batteries (including accumulators). However from the INSTAT data and respective assessments, it is thought that every year around 3 000 000 batteries are dumped into the urban open dumps out of control, while an amount of 8 000 000 kg of lubricant oils and other oils have been imported each year. Actually there are no rules for the management of this category of wastes. On the other hand the number of cars has grown annually reaching the figure of 300 000 (the other transport vehicles used in agriculture and other sectors like construction, industry, mines etc., are excluded from that figure).

a. The preparation of a strategy and Action Plan for the annual assessment and management without risk of lubricants oils and used batteries. Year 2006; MoE,. MoT&T, MoA&F, MoI&E, MoD, MoPO.

b. Regarding the hazardous chemicals and those that have exceeded the expiry date, incomplete data are available on their stocked amount in the different storehouses and other industrial plants, which are currently mostly out of work. These data on the amount and store places of the hazardous chemicals and wastes are given in the BB study in the form of excel table sheets. However, a complete inventory does not exist. The Ministry of Environment is running the project "Feasibility study and detailed design of the hazardous waste landfill" (EU CARDS 2002). The applicable phase of this project related to the construction of the landfill is also approved in principle.

In the framework of EU LIFE project managed by ECAT Tirana (2001) a strategic plan for health care waste management for Tirana and the surrounding region was prepared. This plan is intended to be used as a model for future regional administrators and could be replicated on national level. This Plan analyses several possible options for the future of improved and well-organized HCW treatment in Tirana. Basically, the options can be divided into three general types: the establishment of new treatment facilities at individual hospitals (on-site treatment); the establishment of a facility at one hospital that will provide a treatment service for all hospitals (one-site treatment); and the establishment of one regional treatment facility at a non-medical site such as an industrial area. The suitability of each option is not only dependent upon the technical ability of the hospitals to operate and maintain a system to collect and transport wastes but also the cost of operating it.

A financial analysis was performed as well for on-site, one-site and off-site locations for treatment facilities and for the three most widely used healthcare waste treatment technologies, incineration, microwave irradiation and steam disinfection. In the financial analysis three standards of air

emission control have been considered: no emissions control, basic emissions and EU standard emissions control.

Finally the strategic approach for future HCW management in the hospitals, and ultimately other clinics and institutions, in Tirana are given in above mention strategic plan. Each part of the approach includes specific strategic recommendations on the changes necessary to introduce to ensure that the strategic approach can become achieved and implemented effectively. 22 recommendations are classified in the following groups: segregate wastes, separate treatment and disposal, HCW budgets, centralised (regional) HRW treatment, incineration with emissions control, disposal to land, other HRW, HCW plan and Infection control, legislation, long-term policy, updated training.

b.1 The preparation of the Action Plan for the precise assessment of the type, store place and ways for management without risk of:

- Hazardous chemicals and those which have exceeded the expiry date. Year 2005; MoE and other line ministries;
- Healthcare wastes. Year 2006; MoE, MoH.

b.3 The finalization of the feasibility study and the implementation of the project related to landfill of the hazardous wastes. Year 2011; MoE, other line Ministries, local authorities;

b.4 The finalization of the inventory of the hazardous wastes in the framework of the feasibility study for the hazardous wastes landfill. Year 2005; MoE, other line ministries.

3.9 Stopping of Production and Usage of PCB-s and POP-s

In Albania there is no production of PCBs or POPs, generally speaking. However, a complete inventory of POPs and PCBs is missing. PCBs have been used as dielectric materials in the transformers imported for the energy industry in the country.

Measures planned acknowledge the situation and the interventions to be done in order to safely manage the materials containing PCBs and POPs, in accordance with UNEP decisions of year 1995, Protocol for land based source pollutants, EU directives, Stockholm Convention on POPs, etc., should consist on the followings:

1. National inventory of the amount of oils containing PCBs and chemicals containing POPs and the inventory of their storage places. Year 2005; MoI&E, MoA&F;
2. Preparation and implementation of the National Plan in the framework of Stockholm Convention. Year 2010; MoE, other line ministries.

4. ECONOMIC INSTRUMENTS

4.1 Economic Instruments for the Implementation of the SAPs for the coastal zone of Albania

As defined in the report on the Sectorial Plans, the main priority areas which call for immediate intervention for the protection of the coastal zone from land base sources include:

- urban wastewater treatment
- urban solid waste treatment
- air pollution from transport and industry
- historic pollution at the hot spots

Actions have been identified for the 5 cities listed in geographical order from North to South (Shkodra, Durres, Tirana, Elbasan and Vlora) having a population of over 100,000 inhabitants, as well as for the smaller ones on the coastal zone. The actions identified include both soft (legislation, plans and programs drafting, etc.), annex 1, and hard measures (construction of environmental infrastructure, such as landfills for urban and hazardous waste, treatment plants for sewage water treatment etc.) annex 2.

The tables annexed to this chapter, 1 & 2, give in an organized and user friendly fashion the measures, deadlines, responsible institutions/bodies, budget forecast, source of financing, etc. planned under the Sectorial Plans. Thus, one can estimate the costs incurred for each area of environmental management, for each city, as well as the total for the whole coastal area. Estimation can be also made for the overall cost of construction and operation of landfills on the coast, of wastewater treatment plants on the coast, etc. The tables will give sufficient information for users to make further analysis and deduct conclusions for other issues of their own interest. They are also a useful tool for the future monitoring and enforcement of plans in the given timeframe.

Tables show that all the measures planned do incur costs in terms of human (expertise), material and financial resources (for drafting of documents, investments and operation and maintenance). They show that **funds are needed not only to carry out the investment, but also for making them operational, a fact which is often forgotten**. Practice has shown that when such costs have not been planned in advance and no instruments have been mobilized for covering them, investment, no matter how expensive and important, has not offered sustainable services. For that reason, in order to remind this fact, the annex of investment portfolio for hard measures gives a column with data on the investment costs incurred, which can be covered by grants, loans and/or state budget, as well as a column with data on annual operation & maintenance costs, which are to be covered by the local budget and/or the state budget. The later, which is usually missing in most

documents of other investment portfolios, is exactly meant to remind the Albanian central local authorities that each time they think about future investments, they have to foresee and provide the current costs they impose. Therefore, they have to identify the instruments to generate the needed funds.

In the period 1993-2005, the international support for environmental protection in terms of grants has been available for Albania. With the time passing by, the grants may get reduced and loans may be provided, instead. Time for soft loans for Albania is also expiring. Commercial loans will be offered increasingly. Under these circumstances it is clear that the country has the obligation to increase its own capacities for generating domestic funds internally through the use of economic instruments for environmental management.

As a matter of fact, environmental taxes have had no history in Albania. Even today, command and control instruments dominate the environmental policy. License, permits, authorization and concessions for use of nature environment elements, as well as penalties for law transgression are widespread throughout the Albanian environmental legislation. Economic instruments are still scarce. Most of them are basically conceived as user charges with a fund rising purpose for the general state budget. Therefore, monitoring of their impact on environment becomes almost impossible. No incentive taxes are applied yet.

In the period 2002-2003, a new package of environmental legislation has been designed and approved, in line with a number of EC directives and the requirements of different international multilateral agreements where Albania is a party. This new package lays the foundations for the introduction of new economic instruments for environment:

- The frame law no. 8934, dt.05.09.2002 "On environment protection", between others is based on the Polluter Pays Principle, environmental liability principle, etc. Article 25 of this law is dedicated to "Environmental charges and taxes";
- The law no.9010, dt.13.02.2003 "On the environmental management of solid waste", dedicates article 6 to the "Waste taxes". It states that natural and legal persons producing waste, pay a tax for the right of discharging it to environment;
- The law no. 8897, dt.16.05.2002 "On protection of air from pollution", chapter VIII, article 18, also consider the payment of a tax for air pollution;
- The law no. 8906, dt. 06.06.2002 "On the protected areas", article 19 "users of the protected areas", point 6 says "Legal and natural persons, carrying licensed activities in the territory of the protected areas, following the approval of this law, are obliged to sign a contract with the administration institutions for exercising their activities, against the payment of certain charges";

- The law no. 9115, dt.24.07.2003 “On the environmental treatment of wastewater”, chapter II, “Water pollution prevention and reduction of wastewater”, article 5, point ë, says: the process of environmental treatment of wastewater, aims ...the liability for pollution and rehabilitation of environment damaged by legal or natural persons through the discharge of pollutants into the water beyond the allowed norms”. Effluent discharges norms are being set following the related EC directives;
- The law no. 9103, dt. 10.07.2003 “For the protection of the transboundary lakes”, article 2 “Definitions”, point 6 describes the “Lake’s use charge” as the charge set on the legal and natural persons carrying their activities in the lake or at its coast, except for the user water charge;
- The law no.8905, dt.06.06.2002 “For the protection of the marine environment from pollution and damage”, article 14 “Pollution clean up”, point 1 says: “Legal and natural persons, who have caused the pollution to the marine environment, are obliged to clean up the polluted area and restore the previous state of environment, as well as pay the eventual liabilities.

The above listed legislation is part of the new regulatory instruments of the environmental policy in Albania, which aim at achieving a sustainable development in the country. They have been accepted as such in the updated NEAP, approved by the Council of the Ministers in 2002. They are being prized increasingly by the EC counterpart during the different meetings on the Stabilization and Association Process, in particular in the recent document European Partnership for Albania, the 7th and 8th Joint Committee Meeting EU-Albania, etc., where enforcement of eco-taxes is one of the main recommendations. The reason for such a recommendation is the generation of domestic funds for environmental protection, rehabilitation of hot spots, as well as the need to influence public and business behavior. **Slowly, but steadily, it is increasingly becoming evident for decision-makers that new instruments such as the economic ones are indispensable for the sound environmental management of the country. This is evident in the Governmental Programme 2005-2009.**

Between the major environmental priorities in the coastal zone of Albania, as already recognized by the Sectorial Plans, urban waste management, hazardous waste management, sewage and other effluent water management are crucial problems needing an urgent solution. These problems must be faced and solved through the use of different policy instruments. Between them are the economic instruments. Implementation of the Sectorial Plans involves new taxes and charges and/or modifications of the existing ones.

Following the main areas of intervention, as given in the Sectorial Plans, the following economic instruments are requested urgently and are also feasible to implement in the short to medium run:

Two kinds/components of user charges are indispensable for urban waste management:

- **U1- which is meant to cover the operation and maintenance costs of the solid waste collection and removal** (for the regions where no treatment is being made). A cleaning tariff (kind of U1, local tax approved by each municipality) is already in place in all cities. The rate most frequently met is very low and uniform all over the country (about 3USD/household/year) and unable to cover the costs of keeping the respective cities clean. Only Tirana municipality raised it in 2005 to 10 USD/household/year. It is necessary that as soon as possible (2006), higher rates be applied in the rest of coastal municipalities, always reflecting their respective economic standards.
- **U2 - for the treatment/landfilling of solid waste** in the areas where a landfill is planned to be built soon. U2 is planned to be applied in each coastal city at the time the landfill is built and ready for operations. **Two economic instruments are indispensable for the hazardous waste/products:**
 - **Hazardous waste charge** (to be paid by industry) – **H**.
 - **Deposit Refund System** (to be applied for different hazardous waste at the household sector to stimulate their separate collection and treatment at the respective hazardous waste landfill) – **DRS**.

A CARDS 2002 project on the “Feasibility study and detailed design for a hazardous waste landfill” is on-going. It will be immediately followed up by another CARDS 2004 project, which will support the construction of the hazardous waste landfill. No doubt, user charges will be designed and introduced in the law “On hazardous waste”, planned to be delivered for approval to the Parliament by the end of 2005. The hazardous waste user charge will be applied to make the landfill operations and maintenance functional. It must be functional by 2008, when the hazardous waste landfill is ready to perform its services.

Two other kinds/components of user charges are indispensable for sewage water management, as well.

- **S1 - the rates of the user charges for sewage water collection and removal**, will reflect the costs of operation and maintenance of the collector and sewage network. S1 are applied only in some of the municipalities of the coast (see table below). S1 is planned to be introduced in the cities where it is missing, when and where investments for sewerage networks are planned.
- **S2 - the rates of the user charges** to cover the operation and maintenance costs of the sewage treatment plant. S2 is planned to be applied in each coastal city at the time the sewage treatment plant is built and ready for operation.

The table below shows the need for interventions related to sewage water and waste user charges (S1 and U1) in Albania, following the current situation.

A – is used to show that a particular charge is needed to be introduced in the cities where it is still missing.

B – is used to show that a particular charge is needed to be increased in the cities where it already exists, but at a low and insufficient level.

Nr.	City	Sewage water charges (S1) ALL/m ³			Solid waste charges (U1) ALL/ household/year
		Household sector	Public sector	Private sector	
1.	Shkodra	A	A	A	B
2.	Koplik	A	A	A	B
3.	Velipoja	A	A	A	B
4.	Lezha	4	8	10	B
5.	Shengjin	A	A	A	B
6.	Lac	A	A	A	B
7.	Kruja	5	6	10	B
8.	Fushe-Kruja	4	8	10	B
9.	Durres	2	8	10	B
10.	Tirana	5	6	10	1,000
11.	Kavaja	3	6	10	B
12.	Golemi	A	A	A	B
13.	Elbasan	A	A	A	B
14.	Lushnja	5	8	11	B
15.	Divjaka	A	A	A	B
16.	Fier	4	8	10	B
17.	Ballsh	A	A	A	B
18.	Vlora	A	A	A	B
19.	Saranda	5	8	13	B

Based on the Sectorial Plans, other special plans are requested for the entrance into force of new charges or modification of the existing ones, at the very same deadlines.

Economic instruments must be developed following the time frame and geographic context of each kind of investment previously planned in the Sectorial Plans. So, if a sewage collector and pipeline is planned to be build in 2010, a collection and removal charge – S1, must be in place by that time in that region. If the sewage treatment plant is planned to be build in 2013, then, another charge: the sewage treatment charge – S2, must be in place by that time at the same region. (See the plan for the introduction of economic instruments for the implementation of the Sectorial Plans in the given geographic and time frame in the coastal regions). This means that preparations for introducing those changes must start at earlier, not only in terms of paper work, procedures for approval, etc., but also in terms of public information and acceptance.

No.	City	2006	2007	2008	2009	2010	2011	2012	2013	2014
1.	Shkodra	B – U1		A – S1 A – H, DRS,		A – S2, U2				
2.	Koplik	B – U1		A – H, DRS		A – S1, U2		A – S2		
3.	Velipoja	B – U1	A – S1	A – S2 A – H, DRS		A – U2				
4.	Lezha	B – U1		A – S1, U2 A – H, DRS				A – S2		
5.	Shengjin	B – U1	A – S1	A – S1, U2 A – H, DRS				A – S2		
6.	Lac	B – U1		A – S1 A – H, DRS		A – U2			A – S2	
7.	Kruja	B – U1		A – H, DRS						A – S2
8.	F-Kruja	B – U1		A – H, DRS						A – S2
9.	Durres	B – U1		A – H, DRS	A – S2, U2					
10.	Tirana	B – U1		A – H, DRS	A – U2				A – S2	
11.	Kavaja	B – U1 A – S2		A – H, DRS						
12.	Golemi	B – U1 A – S1, S2		A – H, DRS						
13.	Elbasan	B – U1	A – U2	A – S1 A – H, DRS				A – S2		
14.	Lushnja	B – U1		A – H, DRS	A – U2		A – S2			
15.	Divjaka	B – U1		A – S1 A – H, DRS	A – U2		A – S2			
16.	Fier	B – U1		A – H, DRS	A – U2		A – S2			
17.	Ballsh	B – U1	A – S1	A – H, DRS		A – U2		A – S2		
18.	Vlora	A – S1 B – U1		A – S2, U2 A – H, DRS						
19.	Saranda	B – U1	A – S2, U2	A – H, DRS						

Generally speaking, charge rates must reflect the economic standard of the regions. If the incomes collected are insufficient to cover the respective costs, subsidies from the state budget must be used to fill the gap. Rates may grow step by step, following the changes in the regional/national economy. This is considered as an important and integral part of the overall approach for Albania's EU integration and economic development.

The economic instruments proposed above, will generate funds, which are actually impossible/difficult to obtain by the state budget and/or IFIs. Besides, recycling of funds within the environmental field will facilitate the formal and informal monitoring of the eco-eco efficiency of economic instruments. It will also raise business and public awareness on the economic value of environment and increase their trust in the environmental charges they have to pay.

4.2 Soft Measures planned for the coastal regions

Public Administration Expenditure - PAE

	No.	Measure planned	Deadline	Responsible authorities	Budget requested	Source of funding
AIR POLLUTION						
T R A N S P O R T	1	Entering into force of the Common Guidelines of the Minister of transport & Telecommunication and the Minister of Environment "On allowed norms for the air emissions from mobile sources"	2005	MoE, MoTT	Part of PAE	SB
	2	Establishment of infrastructure for the periodic control of the vehicles.	2005	MoTT - GDT	Part of PAE	SB
	3	Transposition of EC directives on fuels and lubricant oil standards	2005/06	MoIE, GDC	Part of PAE	SB
	4	Implementation of the transposed directives			Part of PAE	SB
	5	Drafting of acts to ban the use of domestic fuels (due to the non-compliance with the new standards)	2005	MoIE	Part of PAE	SB
	6	Drafting of the National Strategy for the improvement of air quality from the transport sector	2007	MoTT, MoE, MoTAT, local authorities	Part of PAE	SB
	7	Drafting of LEAPs for the coastal zone (air issues from transport)	2006	Local authorities, MoLGD, MoE, MoTT, MoTAT,	Part of PAE	SB
	8	Promotion of the new gasoline cars	2005	MoF, MoE, MoTT, MoIE	Part of PAE	SB
	9	Revision of the tax system in order the new, gasoline, and low emission cars are promoted.	2006	MoE, MoIE, MoTT, MoF	Part of PAE	SB

AIR POLLUTION						
C O N S T R U C T I O N	1	Revision and amendment of the Law on Urban Planning	2005	MoTAT, MoE	Part of PAE	SB
	1	Improvement of construction rules and regulations	2005	MoTAT, MoE, local authorities	Part of PAE	SB
	1	Compliance with the rules for transportation of the inert materials	2005	Local government	Part of PAE	SB
	1	Paving of the main and secondary streets of the main cities of the coastal zone	2010	MoTAT, local government	Part of PAE	SB
	1	Use of wet techniques for the cleaning the streets of the main cities	2006	local government	Part of PAE	SB
	1	Revision of the construction standards for improving the ratio between built and green areas	2005	MoTAT, MoE, Local government	Part of PAE	SB
I N D U S T R Y	1	Enforcement of the DCM no.435, dt.12.09.2002 "On air emissions standards in the RoA"	2005	MoE, Elnsp, MoE, local government	Part of PAE	SB
	1	Enforcement of the DCM no.248, dt.24.04.2003 "On temporary air emissions standards in the RoA"	2005	MoE, Elnsp, MoE, local government	Part of PAE	SB
	1	Compliance with the DCM no.103, dt. 31.03.2002 "On the environmental monitoring in the RoA".	From 2005 (in continuity)	MoE	Part of PAE	SB
	1	Drafting of the Action Plan for the National Strategy for the Non-Alimentary Industry	2006	MoE	Part of PAE	SB
	2	Implementation of the Action Plan for the National Strategy for the Non-Alimentary Industry	2007	MoE	Part of PAE	SB
	2	Drafting of LEAPs for the coastal zone (air issues from industry)	2005	Local authorities, MoLGD, MoE, MoE	Part of PAE	SB
	2	Implementation of the Action Plan of the National Energy Strategy	2005	MoE, MoE, local authorities	Part of PAE	SB

WATER POLLUTION						
I N D U S T R Y	2	Drafting of the “Guidelines for rules and procedures for liability estimation and environmental rehabilitation from waste water treatment plants”.			Part of PAE	SB
	2	Drafting of the DCM “On the environmental criteria used for the construction and operations of the sewage system”.			Part of PAE	SB
	2	Drafting of the DCM “On the criteria applied for the discharges of effluent water from wastewater treatment plants into the sea”			Part of PAE	SB
	2	Drafting of the DCM “On the approval of the sensitive and less sensitive areas”			Part of PAE	SB
SOLID WASTE						
I N D U S T R Y	2	Approval of the draft DCM on the “National waste catalogue”	2005	CoM	Part of PAE	SB
	2	Drafting of the act on the banning of import and phasing out of the POPs	2006	MoE, MoIE, MoAF	Part of PAE	SB
	2	Completion of the legal framework for the hazardous chemicals and waste	2005	MOE, MoIE	Part of PAE	SB
	3	Drafting and approval of the “Law on hazardous waste”	2005	MoE, CoM, Parliament	Part of PAE	SB
	3	Drafting of programs for waste minimization at source, recycling and composting of organic waste in Shkodra.	2007	MoTAT, MOE, ITA local authorities of Shkodra	Part of PAE	SB
	3	Drafting of programs for waste minimization at source, recycling and composting of organic waste in Lezha and Shengjin.	2008	MoTAT, MOE, ITA local authorities of Lezha and Shengjin	Part of PAE	SB
	3	Drafting of a plan for the safe management of chemicals stock in Lac.	2007	MoIE, MOE, ITA local authorities of Lac	Part of PAE	SB
3	Drafting of programs for waste minimization at source, recycling and/or composting of organic waste in Durres.	2007	MoTAT, MOE, ITA local authorities of Durres	Part of PAE	SB	

SOLID WASTE						
	3	Drafting of programs for waste minimization at source, recycling and/or composting of organic waste in Fier.	2007	MoTAT, MOE, ITA local authorities of Fier	Part of PAE	SB
	3	Drafting of programs for waste minimization at source, recycling and/or composting of organic waste in BALLsh.	2008	MoTAT, MOE, ITA local authorities of Ballsh	Part of PAE	SB
	3	Drafting of programs for waste minimization at source, recycling and/or composting of organic waste in Vlora.	2007	MoTAT, MOE, ITA local authorities of Vlora	Part of PAE	SB
	3	Study on the health impacts of pollution at Porto Romano.	2006	MoH	Part of PAE	SB
	3	Drafting of a program to stop further pollution at Patos-Marinza oilfield.	2006	MoIE, Albpetrol, MoE, ITA, local authorities	Part of PAE	SB
POLLUTION BY CHLOR-ORGANIC COMPOUNDS						
I N D U S T R Y	4	Update of the analytical inventory of the chlor-organic pesticides (in use or stored)	2006	MoAF, MoIE	Part of PAE	SB
	4	Drafting of the National Chemicals Profile according to the UNITAR model	2006	MoE, Inst.Env, line ministries	Part of PAE	SB
	4	Drafting of the inventory of the chlor-organic compounds of the dying and timber industry, dry cleaning, etc.	2006	MoE, MoIE	Part of PAE	SB
	4	Drafting of a program for the reduction of chlor-organic compounds by different economic sectors	2007	MoE, MoAF, MoIE	Part of PAE	SB
	4	Implementation of a program for the reduction of chlor-organic compounds by different economic sectors	After 2007	MoE, MoAF, MoIE	Part of PAE	SB

LUBRICANT OILS, BATTERIES, HAZARDOUS CHEMICALS, HAZARDOUS WASTE AND HEALTHCARE WASTE						
I N D U S T R Y	4	Drafting of the strategy and Action Plan for the annual assessment and safe management of the lubricant oils and used batteries	2006	MoE, MoTAT, MoAF, MoIE, MoD,	Part of PAE	SB
	4	Drafting of the Action Plan for the precise assessment of the type, store place and methods for safe management of the hazardous expired and chemicals	2006	MoE, MoH	Part of PAE	SB
	4	Drafting of the Action Plan for the precise assessment of the type, store place and methods for safe management of the healthcare wastes	2011	MoE, line ministries, local authorities	Part of PAE	SB
	4	Drafting of the inventory of the hazardous waste in Albania	2005	MoE, MoIE, line ministries, local authorities	Part of PAE	SB
H E A L T H						
H O U S E H O L D S						
BANNING AND PHASING OUT OF THE PCB-s AND POPs						
I N D U S T R Y	4	Drafting of the inventory of amounts of oils containing PCBs and chemicals containing POPs	2005	MoIE, MoAF	Part of PAE	SB
	5	Drafting of the inventory of the related storage places	2005	MoIE, MoAF	Part of PAE	SB
	5	Drafting of the National Plan for the implementation of the Stockholm Convention	2010	MoE, line ministries	Part of PAE	SB

4.3 Investment Portfolio (Hard measures for the districts)

Acronyms:

G – Grant

L – Loan

SB – State Budget

LB – Local Budget

EI – Economic Instruments

ITA – International Technical Assistance

S1 – Sewage water collection and removal charge to be introduced

S2 - Sewage water treatment charge to be introduced

U1 – Urban waste collection and removal charge (cleaning charge)

U2 – Urban waste landfilling charge

H1 – Hazardous waste charge

DRS – Deposit refund system for hazardous waste from household sector

A – Introduce

B – Increase

n/a – information is not available at this moment (2005)

gap – funds are missing at this moment (2005)

Note: The project given in bold letters have already secured funding for investments. The rest of them has been brought to the attention of the donor organizations and IFIs, but no pledge has been made yet.

SHKODRA DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Source of funding needed/ secured			Annual O&M cost incurred	Source of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
S H K O D R A	1.	Works for the construction of the sewerage system for Shkodra city	2008	MoTAT, MoLGD, ITA Shkodra municipality	7.5 MEUR	German cooperation	n/a	secured	n/a	Subsidy	A - S1
	2.	Works for the construction of the sewage water treatment plant for Shkodra city	2010	MoTAT, MoLGD, ITA Shkodra municipality		German cooperation		secured	n/a	Subsidy	A - S2
K O P L I K	3.	Construction of the sewerage system for the town of Koplik	2010	MoTAT, MoLGD, ITA Koplik municipality	5 MEUR	gap	gap	gap	n/a	Subsidy	A - S1
	4.	Works for the construction of the sewage water treatment plant for the town of Koplik	2012	MoTAT, MoLGD, ITA Koplik municipality		gap	gap	gap	n/a	Subsidy	A - S2
V E L I P J A	5.	Construction of the sewerage system for the Velipoja commune	2007	MoTAT, MoLGD, ITA, Velipoja commune	5 MEUR	gap	gap	gap	n/a	Subsidy	A - S1
	6.	Works for the construction of the sewage water treatment plant for the Velipoja commune	2008	MoTAT, MoLGD, ITA, Velipoja commune		gap	gap	gap	n/a	Subsidy	A - S2
		TOTAL FOR WASTEWATER			17.5 MEUR						

SHKODRA DISTRICT

URBAN SOLID WASTE TREATMENT											
SH	7.	Completion with containers and transport tracks for urban solid waste for Shkodra city	2008	MoTAT, MoLGD, Shkodra municipality	1 MEUR	gap	gap	gap	n/a		
K	8.	Completion with containers and transport tracks for urban solid waste for the town of Koplik	2008	MoTAT, MoLGD, Koplik municipality	0.5 MEUR	gap	gap	gap	n/a		
V	9.	Completion with containers and transport tracks for urban solid waste for Velipoja commune	2008	MoTAT, MoLGD, MoLGD, Velipoja commune	0.8 MEUR	gap	gap	gap	n/a		
SH, K, V	10.	Works for the construction of a common sanitary landfill for Shkodra city, Town of Koplik and Velipoja commune	2010	MoTAT, MoLGD, ITA, local governments	1.5 MEUR	gap	gap	gap	n/a	Subsidy	A - U2
		TOTAL FOR WASTE			3.8 MEUR						
		GRAND TOTAL FOR SHKODRA DISTRICT			21.3 MEUR						

LEZHA DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Source of funding needed/ secured			Annual O&M cost incurred	Source of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
L E Z H A	1.	Works for the construction of the sewerage system for Lezha city	2008	MoTAT, MoLGD, ITA Lezha municipality	3 MEUR	GEF		secured	n/a	Subsidy	
S H E N G J I N	2.	Works for the construction of the sewage water treatment plant for town of Shengjin	2008	MoTAT, MoLGD, ITA Shengjin municipality	2 MEUR	gap	gap	gap	n/a	Subsidy	A - S2
S H E N G J I N	3.	Works for the construction of the water treatment plant for the fish conservation factory (Shengjin)	2008	MoAF, local authorities, Business	1 MEUR	Private business			n/a		gap
		TOTAL FOR WASTEWATER			6 MEUR		gap				

LEZHA DISTRICT

URBAN SOLID WASTE TREATMENT											
L	4.	Implementation of the program for recycling and composting for the city of Lezha	2008	MoTAT, MoLGD, ITA Lezha municipality	0.5 MEUR	gap	gap	gap	n/a		
SH	5.	Implementation of the program for recycling and composting for the town of Shengjin	2008	MoTAT, MoLGD, ITA Shengjin municipality	0.5 MEUR	gap	gap	gap	n/a		
L, SH	6.	Works for the construction of the common sanitary landfill for urban waste for Lezha and Shengjin	2008	MoTAT, MoLGD, ITA Lezha and Shengjin municipalities	1.5 MEUR	gap	gap	gap	n/a	Subsidy	B – U1 and A – U2
					2.5 MEUR						
		GRAND TOTAL FOR LEZHA DISTRICT			8.5 MEUR						

KURBINI DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Source of funding needed/ secured			Annual O&M cost incurred	Source of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
L A C	1.	Works for the construction of the sewerage system for town of Lac	2008	MoTAT, MoLGD, ITA Lac municipality	3 MEUR	Italian cooperation		secured	n/a	Subsidy	A – S1
	2.	Works for the construction of the sewage water treatment plant for town of Lac	2013	MoTAT, MoLGD, ITA Lac municipality	2 MEUR	gap	gap	gap	n/a	Subsidy	A – S2
	3.	SUBTOTAL FOR WASTEWATER			5 MEUR						
URBAN SOLID WASTE TREATMENT											
L A C	4.	Works for the construction of the sanitary landfill for town of Lac	2010	MoTAT, MoLGD, ITA Lac municipality	1 MEUR	gap	gap	gap	n/a	Subsidy	B – U1 A – U2
HAZARDOUS WASTE											
L A C	5.	Environmental management of chemicals stock at the Chemical Metallurgical Plant in Lac	2006	MoIE, MoLGD, ITA Lac municipality	3 MEUR	gap	gap	gap	n/a		
	6.	Implementation of the plan for safe waste disposal at the dump of the Chemical Metallurgical Plant in Lac	2007	MoIE, MoLGD, ITA Lac municipality							
			SUBTOTAL FOR HAZARDOUS WASTE			3 MEUR					
		GRAND TOTAL FOR LAC DISTRICT			9 MEUR						

KRUJA DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/ secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
K R U J A	1.	Works for the construction of the sewerage system for town of Kruja	2010	MoTAT, MoLGD, ITA Kruja municipality	3.7 MEUR	n/a	KfW	secured	n/a	Subsidy	A – S1
	2.	Works for the construction of the sewage water treatment plant for town of Kruja	2014	MoTAT, MoLGD, ITA Kruja municipality					n/a	Subsidy	A – S2
F. K R U J A	3.	Works for the construction of the sewerage system for town of Kruja	2010	MoTAT, MoLGD, ITA Fushe-Kruja municipality	4 MEUR	n/a	Islamic Bank	secured	n/a	Subsidy	A – S1
	4.	Works for the construction of the sewage water treatment plant for town of Fushe-Kruja	2014	MoTAT, MoLGD, ITA Fushe-Kruja municipality					n/a	Subsidy	A – S2
		TOTAL FOR WASTEWATER			7.7 MEUR						
HAZARDOUS WASTE											
	5.	Reconstruction and increase of the productive capacity of the cement factory in Fushe-Kruje	2006	MoIE, Seament factory, MoTAT	1 MEUR	Private business					
		GRAND TOTAL FOR KRUJA DISTRICT			8.7 MEUR						

DURRES DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/ secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
DURRES	1.	Works for the construction of the sewerage system for Durres city and beach	2006	MoTAT, MoLGD, ITA Durres municipality	6.5 MEUR	GEF		secured	n/a	Subsidy	A – S1
	2.	Works for the construction of the sewage water treatment plant for Durres city	2009	MoTAT, MoLGD, ITA Durres municipality					n/a	Subsidy	A – S2
		SUBTOTAL FOR WASTEWATER				6.5 MEUR					
URBAN SOLID WASTE TREATMENT											
DURRES	3.	Treatment of waste from chicken industry	2006	Industry, MoAF, local authorities	1 MEUR	Private business					B – U1
	4.	Completion with containers and trucks for the urban solid waste for Durres city and beach	2007	MoTAT, local authorities	2 MEUR	gap	gap	gap			
	5.	Implementation of programs for waste minimization at source, recycling and composting	2007	MoTAT, local authorities	1 MEUR	gap	gap	gap			
	6.	Construction of the common sanitary landfill for Durres and Tirana regions	2009	MoTAT, local authorities	4 MEUR	gap	gap	gap		Subsidy	A – U2
		SUBTOTAL FOR URBAN WASTE				8 MEUR					

DURRES DISTRICT

HAZARDOUS WASTE										
7.	Dislocation of the families from the contaminated area	2005	MoE, Durres municipality	0.1 MEUR			MoE		Subsidy	
8.	Removal of liquid hazardous chemicals and waste from the Bishti I Palles warehouses and their treatment in a specialized treatment facility in the EU	2005	MoE, ITA	2 MEUR	Dutch cooperation		MoE		Subsidy	
9.	Construction of the landfill for toxic waste and contaminated inert materials from the demolition of former chemical plant in Porto Romano	2008	MoE, MoIE, ITA, local authorities	3 MEUR	Dutch cooperation		MoE		Subsidy	H,DRS
	SUBTOTAL FOR HAZARDOUS WASTE			5.1 MEUR						
	GRAND TOTAL FOR DURRES DISTRICT			19.6 MEUR						

TIRANA DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/ secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
	1.	Technological upgrades for the reduction of wastewater effluents from the tanning industry	2006	MoE, MoIE, local authorities	2 MEUR	Private business					
	2.	Construction of industrial wastewater treatment plants	2010	Industries, MoE, MoIE, ITA, local authorities,	5 MEUR	Private business					
	3.	Works for the construction of the sewerage system for Tirana city	2008	MoTAT, MoLGD, ITA Tirana municipality	70 MEUR	JICA		secured	n/a	Subsidy	
	4.	Works for the construction of the sewage water treatment plant for Tirana city	2013	MoTAT, MoLGD, ITA Tirana municipality					n/a	Subsidy	A – S2
		GRAND TOTAL FOR TIRANA DISTRICT			77 MEUR						

KAVAJA DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/ secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
K A V A J A	1.	Works for the construction of the sewerage system for Kavaja and Golemi beach	2006	MoTAT, MoLGD, ITA Kavaja municipality	4 MEUR		KFW	secured	n/a	Subsidy	A – S1 (Golemi)
	2.	Works for the construction of the sewage water treatment plant for Kavaja and Golemi beach	2006	MoTAT, MoLGD, ITA Kavaja municipality					n/a	Subsidy	A – S2 (Golemi and Kavaja)
	3.	Technological upgrades for the reduction of wastewater effluents from the tanning industry	2006	MoE, MoIE, local authorities	1 MEUR	Private business					
		GRAND TOTAL FOR KAVAJA DISTRICT			5 MEUR						

ELBASAN DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/ secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
	1.	Works for the construction of the sewerage system for Elbasan city	2008	MoTAT, MoLGD, ITA Elbasan municipality	36 MEUR		KFW	secured	n/a	Subsidy	A – U1
	2.	Works for the construction of the sewage water treatment plant for Elbasan city	2012	MoTAT, MoLGD, ITA Elbasan municipality					n/a	Subsidy	A – U2
URBAN SOLID WASTE TREATMENT											
	3.	Implementation of programs for waste minimization at source and recycling of glass, metals, plastics, papers in Elbasan	2006	MoTAT, MoE, Elbasan municipality	2 MEUR	gap	gap	gap			B – U1
	4.	Construction of the sanitary landfill for Elbasan	2007	MoTAT, Elbasan municipality	2 MEUR	gap	gap	gap	n/a	Subsidy	A – U2
		SUBTOTAL WASTE			4 MEUR						

ELBASAN DISTRICT

AIR POLLUTION										
5.	Implementation of the DCM on air emission norms at Cement Factory in Elbasan	2005	Cement factory, MoE, MoIE	4 MEUR	Private business					
6.	Technology upgrade (open furnaces) for the implementation of the DCM on air emission norms at the Ferro-Chromium plant in Elbasan	2006	Ferro-Chromium plant in Elbasan, MoE, MoIE							
7.	Technology upgrade (filters) for the implementation of the DCM on air emission norms at the steel production plant in Elbasan	2007	steel production plant in Elbasan, MoE, MoIE							
	SUBTOTAL FOR AIR POLLUTION			4 MEUR						
	GRAND TOTAL FOR TIRANA DISTRICT			44 MEUR						

LUSHNJA DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/ secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
	1.	Works for the construction of the sewerage system for Lushnja and Divjaka	2008	MoTAT, MoLGD, ITA, Lushnja and Divjaka municipalities	6.2 MEUR		KFW	secured	n/a	Subsidy	A – U1 (Divjaka)
	2.	Works for the construction of the sewage water treatment plant for Lushnja and Divjaka	2011	MoTAT, MoLGD, ITA, Lushnja and Divjaka municipalities		n/a				Subsidy	A – U2 (Divjaka & Lushnja)
		SUBTOTAL FOR WASTEWATER			6.2 MEUR						
URBAN SOLID WASTE TREATMENT											
L U S N J A	3.	Works for the construction of the sanitary landfill for Lushnja and Divjaka (and Fier)	2009	MoTAT, MoLGD, ITA, Lushnja and Divjaka municipalities	2 MEUR	gap	gap	gap	n/a	Subsidy	B – U1 A – U2
		SUBTOTAL FOR URBAN WASTE			2 MEUR						
HAZARDOUS WASTE											
L U S N J A	4.	Implementation of the safe management of hazardous wastes and outdated chemicals at the plastic factory in Lushnja	Starting from 2006	MoE, MoIE, MoLGD, ITA, Lushnja and Divjaka municipalities	1 MEUR	gap	gap	gap	n/a	Subsidy	
		GRAND TOTAL FOR LUSHNJA DISTRICT			9.2 MEUR						

FIERI DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/ secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
F I E R	1.	Works for the construction of the sewerage system for Fier	2008	MoTAT, MoLGD, ITA, Fier municipality	30 MEUR	gap	gap	gap	n/a	Subsidy	
	2.	Works for the construction of the sewage water treatment plant for Fier	2011	MoTAT, MoLGD, ITA, Fier municipality					n/a	Subsidy	A – U2
		TOTAL WASTEWATER FOR			30 MEUR						
URBAN SOLID WASTE TREATMENT											
F I E R	3.	Implementation programs for waste minimization at source, recycling and composting of the organic waste in Fier	Starting from 2007	MoTAT, MoLGD, ITA, Fier municipality	2 MEUR	gap	gap	gap	n/a		
	4.	Completion with containers and trucks for urban solid waste in Fier	2007	MoTAT, MoLGD, ITA, Fier municipality	1 MEUR	gap	gap	gap	n/a		
	5.	Works for the construction of the sanitary landfill for Fier, Lushnja and Divjaka	2008 *	MoTAT, MoE, MoLGD, ITA, local authorities	3 MEUR	gap	gap	gap	n/a	Subsidy	B – U1 A – U2
		TOTAL FOR URBAN WASTE			6 MEUR						

FIERI DISTRICT

HAZARDOUS WASTE											
F	6.	On-site treatment and removal of arsenic solution at the Ammonia Factory in Fier	2005	MoE, MoIE, MoLGD, ITA, Fier municipality	1 MEUR	PHARE			n/a		
I	7.	Implementation of the program for technology upgrade and clean-up of the Patos –Marinza oilfield	2006	MoIE, Albpetrol, MoE, ITA, local authorities	0.5 MEUR	CARDS			n/a	Subsidy	
E		TOTAL FOR HAZARDOUS WASTE			1.5 MEUR						
R		GRAND TOTAL FOR FIER DISTRICT			37.5 MEUR						

MALLAKASTRA DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/ secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
B A L L S H	1.	Works for the construction of the sewerage system for Ballsh	2008	MoTAT, MoLGD, ITA, Ballsh municipality	4 MEUR	gap	gap	gap	n/a	Subsidy	A – U1
	2.	Works for the construction of the sewage water treatment plant for Ballsh	2012	MoTAT, MoLGD, ITA, Ballsh municipality		gap	gap	gap	n/a	Subsidy	A – U2
		SUBTOTAL FOR WASTEWATER			4 MEUR						
URBAN WASTE											
B A L L S H	3.	Implementation of programs for waste minimization at source, recycling and composting of organic waste for Ballsh	2008	MoTAT, MoLGD, ITA, Ballsh municipality	1 MEUR	gap	gap	gap	n/a		
	4.	Completion with containers and trucks for urban solid waste in BALLsh	2007	MoTAT, MoLGD, ITA, Ballsh municipality	0.5 MEUR	gap	gap	gap	n/a		
	5.	Works for the construction of the sanitary landfill for Ballsh	2010	MoTAT, MoLGD, ITA, Ballsh municipality	1 MEUR	gap	gap	gap	n/a	Subsidy	A – U2
u2		SUBTOTAL FOR URBAN WASTE			2.5 MEUR						

MALLAKASTRA DISTRICT

AIR POLLUTION											
B A L L S H		Technology upgrade for the TPP in Ballsh to reduce air emissions	2008	MoE, MoIE, MoLGD, ITA, Ballsh municipality	1 MEUR	gap	gap	gap	n/a	Subsidy	
HAZARDOUS WASTE											
B A L L S H	6.	Technology upgrade of the Ballsh Oil Refinery	2005	MoE, MoIE, ITA, Ballsh municipality	2 MEUR	CARDS			n/a		
		GRAND TOTAL FOR MALLAKASTRA DISTRICT			9.5 MEUR						

VLORA DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER											
VLORA	1.	Works for the construction of the sewerage system for Vlora	2006	MoTAT, MoLGD, ITA, Vlora municipality	7 MEUR	PHARE		secured	n/a	Subsidy	A – S1
	2.	Works for the construction of the sewage water treatment plant for Vlora	2008	MoTAT, MoLGD, ITA, Vlora municipality	3 MEUR	CARDS			n/a	Subsidy	A – S2
		TOTAL FOR WASTEWATER			10 MEUR						
URBAN WASTE											
VLORA	3.	Completion with containers and trucks for urban solid waste of Vlora city and beach	2007	MoTAT, MoLGD, ITA, Vlora municipality	2 MEUR	gap	gap	gap	n/a	Subsidy	B – U1
	4.	Implementation of programs for waste minimization at source, recycling and composting of organic waste for Vlora	2008	MoTAT, MoLGD, ITA, Vlora municipality	2 MEUR	gap	gap	gap	n/a		
	5.	Works for the construction of the sanitary landfill for Vlora	2008	MoTAT, MoLGD, ITA, Vlora municipality	1 MEUR	gap	gap	gap	n/a	Subsidy	A – U2
		SUBTOTAL FOR URBAN WASTE			5 MEUR						
AIR POLLUTION											
VLORA	6.	Technology upgrades for compliance with the DCM on air emissions	2005	Industrial agents, MoE, MoE, MoLGD, ITA, Vlora municipality	2 MEUR	Private business					
		GRAND TOTAL FOR VLORA DISTRICT			17 MEUR						

SARANDA DISTRICT

	No.	Measure planned	Deadline	Responsible authorities	Investment cost incurred	Sources of funding needed/ secured			Annual O&M cost incurred	Sources of funding needed	
						G	L	SB/LB		SB	LB
SEWAGE WATER TREATMENT											
S A R A N D A	1.	Works for the construction of the sewerage system for Saranda	2006	MoTAT, MoLGD, ITA, Saranda municipality	1 MEUR	GEF		secured	n/a	Subsidy	
	2.	Works for the construction of the sewage water treatment plant for Saranda	2007	MoTAT, MoLGD, ITA, Saranda municipality					n/a	Subsidy	A – S2
		TOTAL WASTEWATER FOR				1 MEUR					
URBAN WASTE											
S A R A N D A	3.	Completion with containers and trucks for urban solid waste of Saranda	2007	MoTAT, MoLGD, ITA, Saranda municipality	0.5 MEUR	gap	gap	gap	n/a	Subsidy	B – U1
	4.	Works for the construction of the sanitary landfill for Saranda	2007	MoTAT, MoLGD, ITA, Saranda municipality	1 MEUR	gap	gap	gap	n/a	Subsidy	A – U2
		TOTAL FOR URBAN WASTE			1,5 MEUR						
		GRAND TOTAL FOR SARANDA DISTRICT			2,5 MEUR						
TOTAL FOR THE INVESTMENTS UNDER THE SECTORIAL ACTION PLANS FOR THE COAST											
					248.8 MEUR						

5. IDENTIFICATION OF CRITERIA FOR EVALUATION OF EFFECTIVENESS

5.1. Public Information

Up to the early 1990s there was very little access to or dissemination of environmental information in Albania. The concept of provision of information, particularly environmental information, is relatively new. The Albanian Constitution of 1998 recognizes everyone's rights "to be informed on the environmental situation and its protection" and "to participate in decision-making processes".

Another step forward was the approval of the Guidelines "On the environmental information and public access for environmental information," No. 7, dated 19.1.1998 by the Minister of Health and Environment.

These guidelines determine the type of information that the MoE should possess and guarantees the right of every citizen to have access to information, regarding the environmental elements, the activities that have or might have negative impacts on the environment and human health, as well as the measures for their protection, including administrative measures and the programs for the environmental administration and conservation policies and strategies, designed for this purpose. The guidelines also determine how the request must be presented, the format for the information requested by the public, and the deadlines for providing the information or refusing the request.

One of the priorities of the environmental Strategy and National Environmental Action Plan of 1993 is "development of environmental knowledge and increased public participation in environmental issues". The participation of non-governmental organizations in environmental issues as foreseen in the National Environmental Action Plan of 1993 aims at increasing public awareness on environmental issues through mass media, seminars and conferences, and also through designing policies that enable public participation in decision-making and the development of environmental standards.

A significant accomplishment in the field of public information and participation was the signing on 25 June 1998 and ratification on 27 June 2001, of the UNECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, commonly known as the Aarhus Convention. This Convention was translated into the Albanian language during 1999, and then distributed to national level institutions and NGOs for comments and then to the Ministry of Foreign Affairs for submission to the Council of Ministers and Parliament for ratification.

In order to fulfill the obligations of this Convention, a Draft-Law on "The Public Rights on Environmental Information" was prepared. This project was undertaken with the legal assistance of the PHARE Programme. In collaboration with the Regional Environmental Center (REC), a meeting of the Parliamentary Commission of Health and Environment and Parliamentary

Commission of Laws was held in July 2000 in order to facilitate its ratification by the Parliament. According to the agreement on Association and Stabilization with the EU and the governmental program for the four-year period from 2002-2006, the law had to be approved within 2002.

In addition, there are several other international legal frameworks with provisions on access to environmental information, public participation and access to justice such as the Universal Declaration of Human Rights, the Convention on Climate Change (ratified in October 3, 1994), and Biodiversity Convention (ratified in January 4, 1994)

Access to Information

Environmental information is mainly disseminated through electronic and print media. A considerable number of information leaflets, posters, and fact-sheets on the environment have been produced and distributed. The regular publications include the Environmental Bulletin of MoE (100 printed copies, four editions per year), the State of Environmental Reports in Albanian and English (1 000 printed copies), and the REC Daily Environmental News (disseminated electronically to approximately 300 addresses), a new bi-weekly newsletter "Eco-Movement", the output of a group of 14 NGOs supported by the MilieuKontakt OostEuropa. There are about five articles or news stories per day per eight-to-ten independent daily newspapers. Limited environmental information is disseminated through TV and radio. In collaboration with ECAT-Tirana, for instance, environmental problems resulting from traffic pollution, woodcutting, forestation, and occupation of the green urban areas by kiosks were presented on TV.

An Environmental Information Centre has been established within the MoE, as well, but it is still weak and not yet equipped or organized to publish and offer the necessary environmental information upon request.

Efforts to create and raise environmental awareness have achieved positive results such as the demolition of illegal construction in central parks and squares in Tirana. However, environmental information in general does not reach its intended audience. The articles of the newspapers are very much focused on "news" and not analysis. There is a lack of investigative journalism that could give more in-depth analyses of environment-economic related issues.

Although there is an attempt to popularise environmental information, the attention of the public is still focused on economic concerns. For instance, immigration and the search for better social-economical environment has been the priority for many. Efforts to raise environmental awareness outside the borders of the capital are very minimal. As a result Albanian citizens are not generally well informed about the risks of pollution, the relationship between the environment and public health, and the benefits of a clean environment for the economy and society as a whole. This is also true among national and local politicians and the international community. There is a great

need for improved environmental awareness at all levels of the society. Additionally, measures to facilitate and stimulate the public's right to seek environmental information should be taken.

The Ministry of the Environment receives only about four-to-five official requests for environment-related information a month, public interest in and concern for environmental issues have increased during the last few years. In the newly established Environmental Information Centre one to two individuals visit the centre per day and search for the environmental information.

If the public is interested in certain environmental issues, requests for information have to be made to the public authorities. It should be noted that there are existing procedures on answering public requests. The procedure is defined by the guidelines "On the environmental information and public access for environmental information".

An accessible pollutant release and transfer register (PRTR) or a similar system does not exist at the moment. However, theoretically the public has the right to access environmental information in individual facilities on, for example, released pollution, produced waste and wastewater or similar activities either from public authorities or directly from facilities. On the other hand, the practice shows that the inspectors of the Regional Environmental Agencies do not have the right to enter a factory if the owner does not agree. Requests to public authorities for information on confidential activities, international affairs, national defence, public security, issues under investigation or already investigated, materials which if announced might further damage the environment, and unfinished draft materials may be refused.

The way information is collected and maintained does not facilitate public access. However, a big part of all materials available in the MoE and in the Environmental Information Centre libraries can be used and copied in limited number of copies free of charge. In other cases when the requested information must be copied in quantity, the actual cost for copying must be paid.

In order to raise awareness on environmental problems and on the environmental impact of different activities, there should be a continuous commitment of the state administration throughout the implementation of UNEAP - 2001.

The representatives of central institutions and NGOs have participated in the process of preparing the UNEAP -2001 and will continue to be important partners for its effective and sustainable implementation.

A special emphasis should be put on the preparation of education programs for the interested parties, including central and local institutions. The activities will focus on the preparation of

training materials, seminars and courses for teachers, journalists, etc. Many institutions, including NGOs, will be involved in the organization of media awareness raising activities.

The critical components for increasing the environmental awareness of the public will be the collection, processing and analysis of environmental data and the dissemination of the information, to all the interested parties involved in the implementation of the Action Plan, including managers and users of natural resources, researchers, NGOs and the public.

Improvement of public environmental awareness is considered one of the priority activities of the Plan and, beside the participation of central and local administration, NGOs will play a key role. The partnership of state institutions with NGOs is critical to the achievement of the objectives of Action Plan with respect to public awareness and participation.

The main activities foreseen in the framework of this Plan are:

1. Design of the National Public Information and Participation Strategy.

The preparation and approval of this strategy is linked to the obligations resulting from being party to the Aarhus Convention. The Convention refers to both active and passive information, the right of the public to access to the decision-making process and to environmental programmes.

2. Making the National Environmental Information Centre fully operational.

At present, the Centre is being created at the MoE. It needs strengthening of professional capacities and the necessary equipment for collecting, processing and disseminating environmental information throughout the country.

3. Capacity building for public participation in the environmental assessment and decision-making process.

Training programmes must be organised with representatives of central and local government, stakeholders and civil society, regarding public participation in the design of policies, development plans, standards, monitoring and VNM.

4. Promotion of successful case studies of public participation in decision-making.

Considering the public participation of key importance to successful implementation of a country sustainable development, information campaigns must be organised through the media, posters, and leaflets, to promote the achievements of successful environmental projects, where public participation has played a priority role.

5. Collaboration of MoE with the Ministry of Education and Science to integrate the environmental education Programmes into the curricula at all levels.

Training, education and environmental awareness Programmes will be designed and implemented in Albania based on the environmental priority tasks of the EU as: climate changes, biodiversity, waste, environment, health, natural resources, etc.

6. Allocation of funds by MoE in order to increase the activity and work of NGOs for the raising of public awareness.

In this direction, the activities of the NGOs that address priority environmental problems will be encouraged.

7. Preparation of National Communication Programmes for:

- Water management
- Waste management
- Bio-diversity management
- Development of sustainable forestry
- Training of journalists on coverage of environmental problems

The Programs will assist the application of the policies of the Government at central and local level. The implementation of these Programs requires the preparation of a communication strategy, including national and local media, experts and scientists of respective fields, leaders of different sectors and NGOs.

As well as the need for broad public participation the success of the NAP depends on the active participation of many groups in the implementation of the activities anticipated by the Plan. In general, interested groups have participated in the preparation of the plan and will continue to participate during its implementation.

The important direction for the increase of public awareness will be the collection, processing and publication of environmental information for all interested groups, including public at large, managers and users of natural resources, scientists and NGOs.

Activities of awareness raising, information and participation of the public will be co-coordinated by a special subgroup, which should have a broad basis and authority to involve the other members when and where they will be needed. This subgroup should consist of members of relevant NGOs and civil society and should be able to involve media and information representatives, whenever necessary.

5.2. Environmental NGO community in Albania

Democratic traditions are not yet strong in Albania. One way to promote the participation of people in the democratic dialogue is through increasing the influence of civil society as represented by non-governmental organizations (NGOs). Since 1991, more than 75 different organizations and groups working in different aspects of environmental protection and public education have been created in Albania. In practice, 20-25% of these organizations are active. Most of them are active in nature conservation such as the Protection and Preservation of the Natural Environment Association, (PPNEA), the Albanian Association for the Protection of Birds and Mammals (ASPBM), the Albanian Association of Biologists (AAB), the Forestry Progress (FP), the Albanian Ecological Club (AEC), and others. The most intensive co-operation has been established with Regional Environmental Center (REC), Democracy Network Program (ORT), USAID, SOROS, IUCN, WWF, GTZ, and EURONATUR. In the beginning, most NGOs were established in Tirana, and their members were limited to specialists in fields related to the environmental sciences: biology, chemistry, and geography. More recently NGOs have been established with broad-based memberships involving students and the general public. During 1994 and 1995, a large number of NGOs was established outside Tirana, especially in districts with acute environmental problems, such as Shkodra, Korca, Pogradec and Elbasan.

Some environmental associations, NGOs and foundations have been established by international initiatives. Among these are the Regional Environmental Centre in Tirana (REC-Tirana); (ORT), the Society for Trades and Agricultural Labour; Democracy Network (supported by the U.S. Agency for International Development); Environmental Centre for Administration and Technology (ECAT-Tirana) (established by the European Commission), and MilieuKontakt (established by an initiative of The Netherlands).

There are good examples of campaigns organised by NGOs in Albania, such as the beach cleanup in Durres organized by ECAT-Tirana and REC in 1996. A scientific symposium, bicycle races and a poetry night were also organized during the Day of the Ohrid Lake as part of the Ohrid Lake Rehabilitation Project. At present, however, the environmental movement through NGOs is powerless. In reality, in many cases NGOs are established to carry out consultancy services rather than to function as a group of activists. In such cases, they are hesitant to be critical of those who might wish to engage their services. Considering this pattern, there is a paucity of initiatives from NGOs, although they could have a great moral influence on politicians by educating the people.

Another weak point of the NGO community is the lack of co-operation and collaboration among themselves. There is no umbrella association that could serve as a base for developing main NGO movements. A strategy document with inputs from four NGOs was prepared.

5.3. Public participation

Stimulation of public awareness and participation has been among the main activities foreseen in NEAP.

In the last 5 years, public information has increased as a result of numerous activities of civil society in general and the environmental NGOs in particular. Mass media, especially the printed and the electronic media, have been and remain the most committed in this area.

In the basic provisions of the Constitution it is stated that everyone has the right to take part in the decision-making processes. As far as environmental issues are concerned at the moment, the Albanian legislation does not contain provisions that would satisfactorily describe public participation in the decision-making process although there are good practices, for example, on protection of the Karavasta Lagoon, where public hearings were carried out as well as the public awareness campaigns in the frame of the "Conservation and Wise Use of Wetlands in the Mediterranean Basin" project with focus on Kune Vain Lagoon. There are several cases where an Environmental Impact Assessment (EIA) was not performed at all, or was performed without the public participation, as there were no clear rules and criteria for identifying the "public concerned" as well as how to participate in the decision-making processes step by step. In 17.08.2004 a new regulation "For the public participation in the EIA process" was approved by the Minister of Environment, which indicates the rules and procedures for involvement of the civil society in the discussion of the EIA studies of different projects.

Although, there is no legal provision mentioning simply proposing legislation to governmental bodies, several laws have been proposed by different NGOs, both in the environment and social spheres. In 1995, a group of NGOs began to draft the first environmental law that dealt with biodiversity. In 1997, another NGO developed a proposal that was finalized with a draft law on the conservation of caves.

The contribution of MoE in support of the NGO activity, even though modest, has increased, especially in the funding of awareness programs on the public TV and supporting some NGOs in different cities of Albania.

In order to formalize the cooperation with the environmental NGOs, MoE has signed a Memorandum of Understanding with the NGOs. MoE and the local government in many cities of Albania implement activities in coordination with NGOs, especially on the national and international environmental days.

The right of the public to access information is incorporated in the Constitution of the Republic of Albania, which was approved in 1998. In this context, the amendment made in 1998 to the law “On Environmental Protection” guarantees the right of each individual to be informed. The Albanian Parliament ratified the Aarhus Convention in 1999 dealing with this issue.

Nevertheless, the developments and achievements in the field of public information, awareness and participation can be considered to be modest. Since there is no NGO strategy on public awareness and participation in environmental protection, there can be no coordination and effective results by NGOs towards the achievement of public participation in the decision-making process. It is necessary to have financial support for the NGOs–Government partnership, allocated by the State.

In order to give the public the possibility to participate in the solution of national and local environmental problems, it is necessary that the results of EIA of economic and social projects should be available for the public in understandable ways and forms.

Another way for increasing active public participation in the development and implementation of environmental protection programs is the preparation of Local Environmental Action Plans. The preparation of these plans is closely related to the decentralization of local government, strengthening of environmental protection institutions, and increasing the role of public participation in the development and implementation of environmental programs. Meanwhile, the preparation of LEAPs will strengthen the authority of local government. This will mark a step forward towards the fulfillment of the conditions for Albania’s membership of the EU. The sanctioning of LEAP preparation requires an approval by the Government of the respective legal act, which puts a legal foundation to the obligation of each municipality to prepare the LEAP. So far, LEAPs have been prepared for Peshkopi, Fier, Korca and Pogradec.. In the frame of the ELPA project of the CARDS 2002 program, LEAPs are planned for Lezha and Velipoja. REC has prepared and distributed guidelines for this purpose.

MoE, other central institutions and the local government must program and coordinate their activities with the media and NGOs, in a way that their activities on public information, awareness and participation in decision-making are not only spontaneous, but a continuing process that extends to all ages and social categories.

Although the media are paying increasingly more attention to subjects of environmental concern, a professional approach is lacking in some cases. Training of journalists to treat environmental

problems in an objective, professional and timely manner, is another field which should be supported and encouraged by the MoE.

5.4. Environmental education

Following the international processes: Rio and Johannesburg Summits, the Ministerial Kiev Conference, steps have been made for the environmental education of the new generation: REC has been particularly involved in the area of education and supported a number of publications, such as:

- the publication of the “Red book of fauna for school children”.
- the textbooks “Knowledge on environment published for teachers and pupils of the middle schools named”. They have been piloted as optional subjects for 3 years in 16 middle schools all over the country. In 2004 the subject was fully introduced nation wide and permanently as a new optional subject for all pupils of this level.
- another new textbook “Environment in my town” for the secondary education, prepared in cooperation with the Municipality of Tirana was published in 2004. It focusses mainly on Tirana’s environmental problems. The text has been conceived according to the inter-active techniques for 3 levels (basic, meddium, and advanced) and published in 3000 copies, which were delivered to the schools of the capital.
- Following the Kiev Conference, the “Green Pack” project was initiated, as a multimedia curricula for environmental education, basically for children and teachers of the secondary schools. In cooperation with the Dutch Government, the package is being adopted for Albania and its own environmental problems. The “green pack” aims at promoting a new behaviour for the children, and through them it also tents to educate the parents and the whole Albanian society.

Environmental education will be one of the components of the new National Environmental Strategy.

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