

# **ENVIRONMENTAL SECTOR AND CROSS-CUTTING STRATEGY**

**(National Strategy for Development and Integration)**

**November 2007**

**Ministry of Environment, Forestry and Water Administration**

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## **Preface**

The 2007 Environmental Sector and Cross-Cutting Strategy is the basic document that outlines the state policy in the field of environment protection. The final purpose of drafting, approving and implementing the strategy is to fulfil a constitutional obligation towards the citizens, who are entitled to a healthy and ecological environment, towards the development of Albania in a sustainable way by means of a rational use of its natural resources, their protection from pollution and degradation, as well as by promoting its environmental values in order to turn them into important assets for the country further economic growth.

The Environmental Sector and Cross-Cutting Strategy (ESCCS) is an integral part of the National Strategy for Development and Integration. It should be seen in the context of national policy. Many of the policies and measures of this strategy are supported by programs and actions defined in the cross-sectoral strategy, like tourism, energy, agriculture, etc.

Environment as a sector requires a cross-cutting strategy. A cross-cutting framework provides a modern and integrated approach to both the environmental and other sectors which have a strong impact on transport, agriculture, territory planning, etc. The concept that environment is "cross cutting" is a modern and integrated approach which firmly acknowledges the shared responsibility which many government institutions have for the achievement of sustainable development and the protection of the environment.

The ESCCS is supported by further detailed action plans that address specific issues such as the Biodiversity Strategy and Action Plan, the Forestry and Pasture Development Strategy, the Fishery Strategy and the Waste Management National Plan. The Cross-Cutting Environmental Strategy brings together the most important components of these documents into a single and contemporary entity.

The Ministry of Environment, Forestry and Water Administration has the pleasure to thank all those who contributed to drafting this strategy. We particularly appreciate the EU technical and financial assistance provided to the drafting of this document in the framework of 2005 Cards Program, the Environmental Legislation and Planning – Albania (ELPA). We would also like to thank the civil society, which, through their comments reflected in the Environmental Cross-Cutting Strategy, helped us give the strategy the required dimension.

The Environmental Cross-Cutting Strategy, presented at the National Conference, where H.E.Mr Sali Berisha was present, was drafted in full compliance with the strategy drafting standards of European countries.

The Strategy is discussed at round tables with all the line ministries and the interest groups. Presented in a simple language, including the measures to be taken, it was distributed to the public.

The Strategy includes the drafting of sectorial policies on integrated environment, the strengthening of the national system for the administration of these natural elements, integrated management for protected areas, undertaking of policies for increasing the green areas, contemporary fishing policies, the increase of use of renewable resources against the non-renewable ones.

The strategy foresees the steps to be taken for approximating the regulatory legal framework with the European framework and its implementation, an increase of the gradual process of transferring the natural resources administration to the community.

One of the issues addressed by this strategy is the environment impact assessment for various activities, and the strategic environmental assessment for plans, programs and policies, the obligations deriving from the membership in international agreements, and the strengthening of the role of the public and the civil society, which represent some of the main aspects of this strategy for reaching the above-mentioned fundamental objective.

The Cross Cutting Environmental Strategy includes an integrated Action Plan in all the fields it addresses. A more detailed Action Plan was prepared by the Ministry of Environment, Forestry and Water Administration with the assistance of the ELPA project, and it represents today a very important document, which is soon to become part of the strategic documents of this Ministry.

# 1. Current Conditions

The current conditions in the field of Environment can be assessed with reference to:

1. **The state of the environment** in relation to national, European (European Quality Standards – EQS) and International quality standards – *monitoring results indicate non-compliance with these standards in a number of environmental components including air and water.*
2. **The degree of environmental impact** of various activities – *with the exception of electricity generation, the level of environmental impact per unit activity is generally high.*
3. **The level of expenditure and their efficiency** on environmental protection and prevention of environmental degradation – *the level of expenditure by both the public and the private sector is low, and their efficiency is also poor.*
4. **The degree of concordance between Albanian legislation and European legislation** in the field of environment – *there is a moderate level of agreement between the two sets of legislation.*
5. **The level of implementation of (or compliance with) this legislation** – *laws pertaining to environmental protection are not well enforced or implemented.*

## 1.1. State of the Environment

The state of the environment in Albania can be judged by reference to the condition of the different components of the environment including:

- Air – *compliance with air quality standards*
- Water
  - *Achievement of drinking water standards*
  - *Achievement of bathing water standards*
  - *Compliance with surface water quality objectives including biological quality elements*
  - *Compliance with groundwater standards and trends in pollutant concentrations*
  - *Compliance of marine waters with ecological objectives*
- **Water resources** – *percentage of available resources which are currently utilised.*
- **Biodiversity protection** - *percentage of endangered species, percentage of protected species, percentage of state territory which is protected, and percentage of protected areas.*
- **Forestry and pasture** – *preservation of forestry habitat, natural pasture or pastures transformed by man.*
- **Soil** – *reduction of levels of soil erosion and contamination*
- **Noise** – *compliance with accepted limits for ambient noise*
- **Landscape and cultural heritage** – *preservation of landscape and cultural heritage values related with nature and biodiversity.*

### 1.1.1. Air Quality

The results of ambient air quality monitoring for 2006 show that the air quality norms for two parameters (LNP and PM10) are not met in most of the urban areas (Table 1), but the situation remains quiet in terms of other monitored parameters (SO<sub>2</sub>, NO<sub>2</sub>, Ozone and P<sub>b</sub>)<sub>n</sub>, which remain within the allowed norms. One of the main sources of air pollution in urban areas is transport. The urban planning so far has increased the traffic problems while reduction of green areas in the cities has reduced inhalation of carbon dioxide. Existing vehicles in Albania are relatively old, and their number is increasing.

Emissions from vehicles (PM10) and road dust (LNP) caused by nonasphalted roads and on-going constructions highly contribute to air pollution causing breathing problems, particularly among very young and old people. Industry also contributes to local pollution to a large extent. Concentration of pollutants is more problematic in Tirana and Elbasan, where the main pollutants are two to five times higher than the allowed level.

**Table 1 – Air Quality Monitoring Results**

2006 µg/m <sup>3</sup>	Tirana					Durrës	Elbasan			Fier	Korça	Shkodra	Vlora	Albanian standard
LNP	249	292	171	754	224	201	179	235	159	219	172	213	187	140
PM10	116	137	84	369	108	93	79	117	73	106	82	100	86	70
so2	22	26	18	31	22	19	19	28	18	24	17	18	16	60
NO2	30	36	23	55	27	24	21	28	18	25	20	21	23	60
ozon	102	102	106	102	104	106	100	102	101	105	94	103	107	120

### 1.1.2. Water Reserves and their Quality

The general renewable water resources in Albania are estimated to be approximately 13300 cubic metres per person per year. These resources are used for urban, industrial, and agricultural purposes, as well as for producing electricity from the hydro power stations. Groundwater and underground water are interrelated, and are considered as separate resources.

Drinking water is not provided to all settlements on a full time basis. The quality of drinking water does not, in many instances, comply with European standards.

Groundwater monitoring data is insufficient to present a comprehensive assessment of the current situation. However, the available data indicate a serious pollution of surface water, particularly those near the largest sources of pollution, like: cities, existing industrial zones, former industrial complexes, and mineral extraction and processing sites.

The Water Resource Management project (W.B November 2004 – December 2008) foresees support for a selective rehabilitation of the monitoring system for surface and hydrometric water, addressed by the Hydro meteorological Institute and the hydro geological monitoring network monitored by the Albanian Geological Service. The project will provide hydrometrical equipment for Institute of Hydro-Meteorology and piezometers for the Albanian Geological Service.

The level of compliance with bathing water standards is moderate to low. Generally, the minimal and maximal values of sewage pollution indicators are within the recommended norm. The summertime values in certain monitored locations do not comply, and do not meet, thus, the standards set by the European Union legislation. Bacteriological pollution is higher in places where the used urban water is discharged.

### 1.1.3. Biodiversity

Today 10.4% of the country's territory or 303 thousand of hectares has protected status. However, this national network, which comprises 802 zones of which 750 are Natural Monuments, is too small to have an effective long-term impact on biodiversity protection. For comparison it is of note that 18% of the territory of E.U. Member States is designated under the Natura 2000 network. Many consider even this to be insufficient. Moreover, the current coverage of protected areas is uneven and is not representative of the different habitat types which exist in the country.

The level of protection achieved in many protected areas is neither adequate, nor appropriate with informal forms of exploitation like wood cutting, construction and illegal hunting still being widespread.

An analysis of the status of protection of fauna and flora species shows that there are today 936 endangered species (575 fauna and 361 flora species) altogether in Albania, or 18.7% of all fauna and flora species found in the country territory. Among the fauna species, those standing on the top of the food chain, particularly the mammals and the birds, are the most endangered. Vascular plants on the other hand with 329 endangered species remain the group with the most disfavoured protection status.

338 species of animals and 308 species of plants are currently protected by the domestic legislation. The majority of them are endangered both at the global and the local level.

#### **1.1.4. Forestry and pasture**

Forests and pastures cover today about 1.5 million of hectares or 52% of the total surface of Albania. Based on the 2005 cadastral data, forests cover over one million hectares or 36% of Albania's total surface.

Even though the latest statistics indicate that this surface is relatively stable, its productivity has reduced as a result of over-exploitation cutting before 1992 and illegal cutting over the last decade.

#### **1.1.5. Fishery Resources**

Albania has an important potential of natural resources, which create a big number of opportunities for developing the fishing activity. This potential is based on the great water assets including coast waters, lakes, rivers, lagunas, reservoirs, etc.

Fishing is today faced with damages to the fishing reserves in general, and damages to fish with economic values in particular, which has caused a change of the fishing reserves structures and production fluctuations.

There are still unlicensed fishing activities, and the fishing rules are not yet properly enforced. Problems include excessive use of bottom nets, which damage the sea habitat and fine nets, which damage all fish generations.

Waters still preserve a good quality for fishing despite the pollution observed in some coastal or inland spots. The underwater vegetation, so important for fish reproduction, is being damaged by the use of inappropriate fishing methods, as well as by changes to the water quality, with the dumping of solid waste across the coastal line, particularly, the Ionian Sea coast, being the main cause.

#### **1.1.6. Soils**

Land erosion is widely known as a major problem caused by unsustainable agricultural, pastoral practices, or even by the criterionless exploitation of forests. Albania is one of the Mediterranean countries with the highest level of erosion, which varies from 21.4 ton/hectares to 34.7 ton/hectares per year.

Loss of land along river banks as a result of the destruction of protection banks is a big concern for the communities, the local and the central government.

About 140 thousand hectares of land face slide risk, with Korça (10000 hectares), Elbasani (8400 hectares), Dibra (5300 hectares), and Tirana (5100 hectares) being at the highest risk.

Levels of chemical contamination are low in most agricultural soils; however, large areas of industrially contaminated land remain un-restored. Some of these areas are occupied by migrants who have constructed dwellings on this land and are therefore exposed to serious risks arising from the contaminants on the sites.

#### **1.1.7. Noise**

Noise nuisance is a common urban problem. Its main sources are transport, construction, industry and certain commercial activities such as bars and clubs. The highest allowed level of noise in overcrowded traffic points is 60-65 dB at day time and 40-45 dB at night time. The allowed maximum level was slightly exceeded in 6 out of 8 monitored cities in 2005. At night time, the allowed maximal norm of 45 dB is exceeded only in Tirana by 32.2%, Durrës by 10%, and Elbasan by 1%.

#### **1.1.8. Landscape and cultural heritage**

The impact of development upon cultural heritage sites is routinely included in criteria for Environmental Impact Assessment. Cultural Heritage Monuments are protected according to Law No.9048, 07.04 2003. However there are deficiencies in the law; it does not adequately establish the monument within its environmental context. There are numerous cases of designated monuments being subject to damage despite the existence of this law.

## **1.2. Environmental Impact per unit activity**

Current activities include:

- Urban Development including domestic and commercial property development and use,
- Industry including mining, manufacturing,
- Transport: roads, rail and air,
- Agriculture, exploitation of forests, pastures and fish resources,
- Energy, production and distribution of electricity
- Tourism, including tourist asset development and tourist resource use.

It should also be noted that impacts on the environment still arise from a number of past activities, particularly former industrial and mineral extraction enterprises.

### **1.2.1. Urban development**

Over the last two decades there has been a dramatic increase in the amount of construction activity. Although this has mainly been focussed on existing urban areas and on the coastal zone, a large number of houses have also been built on small plots in scattered locations in the coastal plains. This “construction boom” has been poorly planned and regulated. A large number of constructions have been undertaken informally without the required permits. In the presence of such development practices the provision of communal infrastructure for environmental protection, particularly wastewater collection and treatment, and solid waste collection and disposal is extremely difficult and considerably more expensive than would have been the case if the scattered development had been more aggregated into settlements. The provision of such services is also precluded by the lack of financial means within the public sector.

The current urban development is causing significant environmental damage via:

- Air quality – dust from construction, emissions from generators, emissions from household heating appliances, reduction of green areas and emissions from aggravated traffic,
- Water resources – abstraction of water is poorly regulated, leakage rates are estimated to be as high as 75% in many distribution systems,
- Water quality – insufficient wastewater collection infrastructure exists, sewers leak, many wastewater outlets are connected to surface water drainage systems, there is a general lack of wastewater treatment although some plants have now been constructed with external assistance – the absence of adequate wastewater collection and treatment is non-compliant with both national and European legal requirements
- Landscape – unregulated development has led to the creation of scattered dwellings resulting in an erosion of the distinction between urban and rural areas and the devaluation of landscape values.

The environmental impact of urban development under the current circumstances is relatively high in comparison with the standard of living.

### **1.2.2. Industry**

The level of industrial activity is considerably lower than in previous decades. Nevertheless, the impact of the remaining activities and of new ones which have been introduced is high in relation to the value of the outputs. Thus, the information submitted to the United Nations Framework Convention on Climate Change indicates that CO<sub>2</sub> emissions per capita are much lower than in most industrialised countries, but that CO<sub>2</sub> emissions per unit of GDP are much higher than for industrialised countries.

Small and medium sized enterprises (SMEs) are normally reliant on communal infrastructure for wastewater and solid waste services. However, in the absence of such infrastructure as discussed above, SMEs have two basic options. SMEs can either invest heavily in their own pollution control equipment thereby making themselves less competitive, or they can continue to pollute in excess of permitted standards.

For larger industries some progress has been made including the provision of improved wastewater treatment at the Ballsh refinery and the installation of dust filters at the Elbasan cement factory. However, the Ballsh refinery and the oil industry more generally remains inefficient and out of date leading to high levels of environmental damage (emissions to air, spillages, leaks, and discharges to water) per unit of production.

The construction industry, including the suppliers of raw materials, has grown rapidly in recent years. Environmental performance of the industry is poor, with many construction sites giving rise to high levels of nuisance in the form of noise, dust and general disturbance such as localised damage to roads.

### **1.2.3. Transport**

Transport is dominated by the road sector. The level of rail transport is low and is not anticipated to increase<sup>1</sup>. The volume of air traffic is also relatively low in comparison with most European countries, but this forecast to increase.

The main environmental impacts arising from transport are associated with the development and use of roads. Although the current road network is relatively small and sparse in comparison with other European countries, it is planned to invest in many new and enlarged roads in the coming years. This will have further impacts on landscape and biodiversity.

Vehicle ownership (57 per 1000) in Albania is low by comparison with most European countries (EEA countries: over 350 per 1000 in the year 2000). As such km travelled per person are also low. However, road transport is still giving rise to serious impacts in urban areas. In particular urban air quality is badly affected due to the high levels of emissions per km travelled arising from:

- The poor quality of fuel used – current fuel standards are less stringent than EU standards regardless of Decision no. 147, dated 21.03.2007 of the Council of Ministers, which sets the date of January 1<sup>st</sup>, 2011 as the deadline for meeting the European full standards on fuel,
- The high average age of road vehicles (10+ years) in comparison with the EU average of 7.1,
- The use of larger and less efficient vehicles,
- The poor standard of vehicle maintenance – although vehicle testing systems have been introduced the emission controls are not as stringent as European requirements and are not well enforced,
- Ineffective traffic management leading to congestion and long standing time,
- Poor road conditions leading to high levels of vehicle deterioration.

### **1.2.4. Agriculture**

The intensity of agriculture is considered still lower than in previous decades. Consumption of fertilisers and pesticides are relatively low, and the use of irrigation water is lower than in previous times. However, considerable investment is being made in the reconstruction of the irrigation and drainage networks. Since 1994, apart from the state-budget investments, there have been programs on rehabilitation of irrigation, drainage and protection system infrastructure financed by the World Bank and there is the potential for a re-intensification of the agricultural sector, subject to the development of a free market for land.

The current agricultural activity, which continues to create problems, consists of inappropriate ploughing across contours practices, which cause further erosion, a weak irrigation control system, and consequently misuse of water. Fragmentation of land as a result urbanization pressure and changes to land ownership has hindered the modernization of the sector.

In addition, the use of indigenous varieties is reducing.

### **1.2.5. Energy**

The vast majority of electricity is generated through hydro-electric power plants. This is a clean source of energy and results in low levels of environmental damage. However, there is insufficient generating capacity to provide for all the demands of the country throughout the year. This has led to considerable periods of shortage in recent years. Local consumers have taken to using back up systems usually in the form of petrol or diesel powered generators for the supply of single dwellings or commercial premises. Such generators add to the level of emissions to air in urban areas. There is a clearly identified need for new generation capacity.

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<sup>1</sup> Albanian National Transport Plan, 2004

The electricity distribution system is in need of modernisation and there are many unregulated connections to the system.

The electricity use per capita is relatively low on average (1 427 kWh electricity consumption in 2003 in comparison with over 5 000 in Italy). However, demand is rising rapidly (1 165 kWh in 2000)<sup>2</sup>.

Levels of energy efficiency are relatively low. In particular, buildings are poorly insulated and many appliances, such as air conditioning and refrigeration units, are of low technical efficiencies.

#### **1.2.6. Forestry**

Before 1990, most of the cut forests were used for the wood processing industry. Today, the structure of use has changed with most of the wood material used as fire material for domestic consumption.

The main effect of non- or mis-managed forestry activities on the environment is soil erosion which sterilizes large mountainous areas and damages the water quality adding sediments to it. Loss of woodland affects also diversity through extinction of many habitats of fauna and flora species.

#### **1.2.7. Fishery**

The consumption of fish products is relatively at a low level, about 3.3 kilos per capita annually, as compared to the average of Mediterranean countries, with a consumption rate calculated at 15.1 kilos per capita.

The maritime fleet is dominated by bottom vessels, with 68% of the total. The pelagic fishing vessels consist of 6% of the fleet, whereas the rest engages in selective fishing with hooks. The technical level of the fishery fleet is rated at 50%. The sea fishing recorded during 2005 821 fishermen as compared to 754 in 2004.

Fishing in sea lagoons (of a surface area of 10,000 ha) is a very much frequent activity, with a efficiency varying from 42 to 97 kilos per hectare. The average annual production before the 1990s was estimated at 6,500 quintals as compared to 4,200 quintals currently. The lagoon system currently suffers problems of hydrologic misbalance of communication with the sea and supply with fresh waters.

Inland water fishing (around 600 reservoirs) takes place through their re-population with spawns of carp, bull-head fish, etc. and their breeding in extensive conditions. Only in the three main lakes of Albania (Shkodra Lake, Pogradec Lake and Prespa Lake) currently work 750 fishermen.

Currently, from the mariculture activity is produced 14,000 quintals of mussels, 3,000 quintals of sea bass and sea bream, and 50 quintals of shrimps. In the meantime, the trout breeding has undergone significant increase. During the last years have been recorded 85 raised businesses with a production capacity of about 8,500 quintals. The size of such businesses varies from family ones with approximately 5 quintals to the industrial ones with up to 500 quintals. However, the increase of productivity is accompanied by water pollution from the fish feed.

The artisanal (traditional) fishing is carried out along the entire Albanian coastline. This type of fishing activity uses the area of shallow waters up to two or three miles from the coast in the Adriatic Sea and one mile in the Ionian Sea, always depending on the coast structure. Such fishing activity is carried out in a capillary way along the coast, both for fishing and boat anchorage. The average boat motor power does not exceed 15 HP. A number of at least 500-600 fishermen work in this traditional sector currently.

Fishery in Albania marked an increase of 14.9% in 2006 as compared to 2005. Out of this increase, sea fishery occupies a weight of 10%, the aquaculture marks a doubling of production, the mussels production 8.8%, etc.

Although there is an increase of the fish productivity, it still equals 74% of the pre-1990s' production. The bottom fishery has reached the same level with the pre-1990s, while considerable reduction has been the case with small pelagic.

Actually, the value of fishery from harvesting and aquaculture is calculated at about \$40 million. Out of this total, \$ 22 million come from fish harvesting in the sea, coast and internal waters, about \$ 8 million the aquaculture, and the rest from mussels. In its course through the marketing chain, to the retail sale, its value is increased 10-30%, dependant on the fish type.

The fishery processing industry is characterised by an increase of investment and employment. The processed products are aimed for export and the domestic market. The commercial import-export balance

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<sup>2</sup> International Atomic Energy Agency figures

sheet of fishery products results of positive value. The processing industry currently amounts at an export value of \$16 million.

The fishery sector is negatively affected by the illegal and non-reported fishing activity. The latter is factual, continuously recycled and sensitively increasing problems in the fishery sector. There are many dimensions and motives, but the most obvious one is economic.

### **1.2.8 Hunting**

Hunting of birds and mammals remains a considerable and badly controlled concern, which harms the various efforts for a biodiversity management. In the last 10-15 years have been equipped with hunting weapons 75,000 people, at a time when only 17,000 out of them are embers of the sportive hunting and fishing associations. The presence of a significant number of uncontrolled hunting weapons is a factor that negatively affects the protection of biologic diversity.

Consequently, a decrease of the total number of species and their abundance is observed. Such fall is mainly evident in the autochthon species that are subject to hunting, such as the hare and partridge. At the same time, the hunting of water birds exceeding the daily quotes produces an evident negative effect on their population and spoils environmental balances in the coastal and lake ecosystems.

Illegal hunting also affects the species not subject to it, with the latter settling in other calm areas and altering their areas of breeding.

### **1.2.9 Tourism**

A number of activities associated with the tourist industry are contributing to similar impacts as urban development, particularly along the coastal zone. The industry is characterised by a large number of poorly planned developments which are not provided with adequate communal infrastructure, particularly wastewater collection and urban waste treatment.

### **1.2.10 Past Industrial Activities**

Contaminated land in the form of abandoned industrial installations, mining enterprises and waste dumps is a major problem for the environment.

In 2000, the UNEP<sup>3</sup> (UN Environmental Program) analysed the conditions of a series of industrial zones with the highest pollution rate in Albania. The outcomes of the project clearly identify the serious pollution rate and the risks the public health is posed to at least in nine areas of the country, with the highest risk coming from contaminated water.

Although some remediation of these sites has been undertaken, most still pose a threat to human health and are not in a condition suitable for re-development. Waste disposal sites are not provided with environmental protection measures and most are poorly managed.

### **1.2.11. Waste**

The actual level of waste generation per capita is not known since most collection and disposal services are not equipped with weighing equipment. However, the production of inert and solid urban waste are on average 550 kg per capita per annum for urban areas and 170 kg per capita per annum for rural areas<sup>4</sup>.

The total production of urban waste for 2006 reached an approximate amount of 722,000 tons, with Tirana ranking on top of the other regions (225,190 tons), Durres (78,872 tons), Fier (73,712 tons), Elbasan (66,518 tons), Vlora (59,808 tons), Korca (53,749 tons), Shkodra (48,668 tons) etc.

Waste management in Albania is at a low level. Systems for the collection of urban solid waste are provided in most cities and towns. Very little recycling of waste is undertaken. The main method of disposal is landfill. There are no properly engineered landfill sites in the country. There are no collection systems in rural areas and small towns. Most waste from these areas is disposed of by dumping in ditches, ravines, or at the side of

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<sup>3</sup> Technical Report on Balkans by UNEP, Analytical Results by UNEP of Samples from Industrial Hotspots in Albania, November 2000, Core Document

<sup>4</sup> Waste generation in EU countries is in the region of 500 kg per capita per annum

roads where it is washed and blown onto other land and ultimately into water courses. There is no system for the safe management of hazardous waste (household or commercial). Waste recycling is at poor levels. The main method of waste treatment is that of the landfills, although it needs to be mentioned that such landfills do not have due engineering construction, leading thus to a perpetual environment pollution.

### 1.3. Level of resources devoted to environmental protection

#### 1.3.1. Public Sector – Overall spending

In 2007, the Ministry of Environment, Forestry and Water Administration availed of an annual budget (including external resources) of about Lek 1,851 millions. This amount represents 0.006% of the total public expenditures that are estimated worth Lek 300,643,000.

It is to mention that over 75% of the total expenditures (revenues and investments) for the environmental program are obtained by external assistance (Table 3).

**Table 3. Elements of MoEFWA 2006 Budget**

Items or Programs	Operational expenditures in 000/Lek)	Capital expenditures	Total
Administration	153,200	8,000	161,200
Environment protection	35,400	55,400	90,800
Support of fishery	95,170	28,000	123,170
Water administration	13,286		13,286
Forests administration	632,944	329,600	962,544
Sub-total	930,000	421,000	1,351,000
Financim i huaj		500,000	500,000
<b>Total MMPAU</b>			<b>1,851,000</b>

#### 1.3.2. Environmental Administration

The total number of staff engaged in the environmental protection programme is approximately 200. This gives a ratio of approximately 1 member of staff to every 14 000 of the population. This is extremely low. New Member States in the European Union show ratios in the order of 1 to 4 000. Whilst such comparisons are imprecise, since the definition of environmental protection is variable between countries, the number of staff is clearly below that which could reasonably be expected of an Accession State.

A small part of the differential in staff numbers derives from the assignment of “environmental” duties to other Ministries, in particular the Ministry of Public Works, Transport and Telecommunications which is responsible for supporting investments in water supply and sanitation (wastewater and solid waste).

The level of enforcement capacity is extremely low. The duties of environmental inspection are vested with the Regional Environment Agencies who have 40 staff in total. In addition to the low staff numbers these personnel are not provided with sufficient equipment to undertake their duties effectively. Most do not have appropriate means of transport, telecommunications or administration.

Expenditure on environmental monitoring is correspondingly low and is a small percentage of that which would be required to comply with the requirements under European Community legislation or with the intentions of national legislation.

### 1.3.3. Capital Investments

Capital investments for the implementation of the environmental, forestry, fishery and waters programme occupy about 50% of the total budget of the Ministry of Environment, Forestry and Water Administration. However, capital investments in the environment are carried out by other ministries as well such as the Ministry of Public Works, Transport and Telecommunications (MPWTT). The ministry in question manages a capital investment programme which contributes to communal environmental infrastructure including drinking water supply, wastewater collection and treatment and solid waste management. The capital program of MPWTT for 2006 was Lek 10,154 million at a time where the total expenditures for canalizations (collection and treatment of wastewater) and urban solid wastes (collection and burying of solid waste) amount at Lek 381 million (about Lek 120 per capita per annum) or 3.8% of the total investment budget of this ministry (Table 4).

**Table 4. Elements of the MoPWTT Investment Budget (000 Lek)**

1	Planning and Management (Ministry Staff)	5	0.0%
2	Road Transport	5,545,110	54.6%
3	Road Transport Management (Transport Research Institute)	15,960	0.2%
4	Sea Transport	300,430	3.0%
5	Railway Transport	340,000	3.3%
6	Air Transport	72,500	0.7%
7	Water Supply Sector	2,318,247	22.8%
8	Sanitation Sector	381,185	3.8%
9	Housing Sector	550,950	5.4%
10	Urban Planning Sector	30,000	0.3%
11	Tourist Infrastructure	600,000	5.9%
	<b>Total</b>	<b>10,154,387</b>	<b>100.0%</b>

The total cost of the public sector investments which need to be made in the sectors of wastewater collection and treatment, and solid waste management in order to meet European Community standards is hard to estimate accurately since it would entail a gap analysis to be undertaken in each agglomeration of the current conditions with those required under Community legislation. This has only been partially completed for some areas. However, if the costs are similar to those of recent Accession Countries, then investments of over 1 billion Euros at current prices are to be expected. Put simply, to achieve this level of investment over a 20 year period will require investment in the order of 50 million Euros per annum in wastewater and solid waste infrastructure.

Donor support has been provided for a number of years in the water sector in particular. Numerous investments totalling Euro 270 million were provided in grants and loans for projects in the water sector. A series of such investments have already completed in the field of wastewater collection and treatment and others worth Euro 60 million have been planned for almost the entire coast and lake area of Albania, such as Shko;dra, Shengjin, Lezha, Durrës, Kavaja, Vlora, Saranda and Pogradec. After this year, an increase of the weight of investments was marked also in the system of used waters system and their treatment, with such investments being useful to a future increase in favour to sewerage and wastewater treatment. A very much smaller amount has been provided for solid waste management.

Po ashtu shpenzime të rëndësishme janë kryer nga qeveria dhe donatorët për rehabilitimin “vatrave të nxehta” mjedisore të shkaktuara nga veprimtaritë industriale të braktisura. Tashme janë hequr mbetjet nga qendra industriale e Porto-Romanos dhe po kryhet inkapsulimi i tyre në zonën e Bisht-Palles. Po kështu po punohet për rehabilitimin e mbetjeve të arsenikut në Fier si dhe një rehabilitim i pjesshem është kryer në Uzinën e PVC-se në Vlorë. Rehabilitimi është planifikuar tashme për zona si Rubiku, Fieri, Elbasani etj.

There has also been significant government and donor expenditure on the remediation of “hot spots” arising from abandoned industrial activities. Wastes have already been removed from Porto-Romano and their encapsulation is in process in Bisht-Palla. At the same time work is underway for the rehabilitation of arsenic wastes in Fier, while a partial rehabilitation has taken place in Vlora carbonate-sodium plant. Rehabilitation has been already planned for zones such as Rubik, Fier, Elbasan, etc.

#### **1.3.4. Private Sector**

Statistics concerning the level of investment by the private sector in environmental protection are not currently available.

The tariffs paid by consumers for communal environmental services are low. Whilst the system of tariff setting does allow for the recovery of operational costs, insufficient revenue is generated to allow for any significant capital investment by municipal service operators. Tariffs could be raised. However, even if tariffs were raised to the generally accepted affordability limits, the resulting revenue would still be insufficient to provide for significant ongoing capital investment.

It should also be noted that there are many "informal" connections to the water supply network which have yet to be regularised. Recovery rates for water supply and wastewater collection charges are also known to be relatively low. As a result of these factors many water sector operations are not financially sustainable in their current form.

One potential opportunity for increasing the level of investment would be privatisation of the sector. This has already commenced through the commercialisation of operations. However, the low level of revenue generated by communal service activities makes "deeper" privatisation through the sale of assets impracticable.

#### **1.4. Efficiency of resource use**

The public resources devoted to environmental protection are generally effective. The personnel working in the sector are usually experts in their disciplines and are committed to their work.

However, problems have arisen from the presence of overlapping responsibilities arising from unclear designation of competences. Recent legislation has attempted to clarify many of these issues, but further work is needed.

Institutional arrangements in the field of environment and other sectors have become increasingly complex in recent years, leading to inefficiencies. Recent changes to institutional structures should help to increase efficiency and further clarify responsibilities.

The coordinated use of donor assistance has also been an issue of concern in recent years. The establishment of the Quarterly Donor-Government Roundtables and the work of the Department for Donor and Strategy Coordination have done much to address this issue. Nevertheless, a more beneficiary led approach to the use of donor support is still needed.

The levels of public awareness are low and the communication of environmental issues is relatively weak. This is an area which could be enhanced at relatively low cost.

#### **1.5. Concordance of Domestic Legislation with EU**

The extent of compliance of the domestic legislation with the laws of the European Community has been so far assessed as partial. The Albanian Government has already introduced as a normative act the requirement of every amendment to the domestic legislation to be in compliance with the EU's.

The main policy document for the achievement of legislative concordance is the National Plan for Approximation of Legislation last updated as of May 2007. As with other sectors, the section dealing with environment indicates a very large number of legislative changes which are required in order to achieve concordance.

The legislative review recently undertaken by the ELPA project concluded that Albania's environmental legislation:

- Is broad in scope, although it does not cover all areas of the *acquis*
- Makes use of many of the available regulatory tools
- The command and control regime provided in Albania's environmental legislation is not effective in securing compliance
- Exhibits structural problems – in part the legislation is not clear and in many cases the rules that it seeks to impose are not realistic or fair. Ultimately the problem is that the rules that the legislation creates and the mechanisms for the enforcement of those rules are unworkable.

On the basis of this assessment it is clear that:

- There is a considerable gap between current Albanian legislation and that of the European Community
- Some revision to existing legislation is needed before further progress can be made with both transposition and implementation

### **1.6. Implementation of Legislation**

The successful implementation of legislation is dependent upon a wide range of factors, the most important of which are:

- The quality of the legislation
- Concordance with European legislation.
- Degree of law observance
- The institutional structures which are established to ensure implementation
- The level of effort expended in enforcing the legislation
- The financial investment made by relevant stakeholders

As noted above, there are deficiencies in a number of these areas. There are structural problems associated with the current Albanian legislation. Moreover, the level of dissemination of legislation is relatively low. Guidance and advisory notes to relevant stakeholders are rarely issued to promote new legislation and standards. As a result the level of knowledge of the law is low. This factor, amongst others contributes to a relatively low level of respect for environmental legislation.

Enforcement action to address breaches of legislation is taken. However, many of the financial penalties imposed on transgressors are not actually collected.

### **1.7. Conclusions**

Considerable progress has been made in the field of environmental management in recent years. In particular a large body of environmental law has been created, institutions have been formed and some investments are now being made in communal environmental infrastructure. However, there remain a number of serious barriers to the achievement of sustainable development and to the achievement of levels of environmental protection which might be considered appropriate for an accession state, particularly:

- The level of public expenditure on the operational elements of environmental protection is too low to provide for effective communication, guidance or enforcement of the legislation
- The level of public expenditure on infrastructure for protection of the environment is too low to achieve European standards in the foreseeable future
- Economic activities, particularly transport, are relatively inefficient and give rise to a high level of environmental impact per unit of activity

As a consequence of these problems the state of the environment is, in many instances, not compliant with the requirements of national or European legislation and is liable to deteriorate further, damaging human health, affecting development potential and reducing the potential for high value tourism.

## **2. Vision, Strategic Priorities and Goals**

### **2.1. Vision**

Rapid and sustainable development is the fundamental objective of the Albanian Government. Albania should develop by protecting to the utmost its natural resources from contamination and degradation, consequently promoting environmental values and put them to the benefit of the country's economic prosperity.

Such a development will be guided by the Government vision and policies, which will ensure an integrated development of both rural and urban areas whilst supporting environmental protection. The Government goal will be attained through an effective synergy of specific sector policies into a unique and integrated approach.

Although seemingly an environmental-related concept, the sustainable development is an entirely economic concept that guarantees the security of economic growth. In function of such development, Albania needs an action plan that will work towards:

- (i) improvement of life quality;**
- (ii) creation of conditions for a sustainable and integrated development; and**
- (iii) integration of environmental strategy with other sector strategies**

### **2.2. Priorities in the Government Programme**

To achieve accession to the European Union the country will need to approach compliance with European Community legislation in the field of environment over the coming decade. In some cases, particularly for "investment heavy" elements of Community legislation, complete compliance will not be achieved until some time after accession as is the case with most of the new Member States. Nevertheless considerable progress is needed even in these areas. Environment is one of the largest components of European Community legislation and is acknowledged to be one of the most difficult areas in which to achieve compliance.

The Government Programme for 2005 – 2009 sets priorities for environmental protection and the sustainable use of natural resources. In summary these are:

1. Enforcement of the laws on environment protection, in particular, the polluter pays principle will be strictly enforced. To this end, government will reform environmental agencies and institutions and will increase the punitive measures against polluters and damagers of environmental assets.
2. Government will discipline as a priority economic activities that cause air and water pollution, compromise tourism potential, damage forests and cause soil erosion.
3. In particular will be reduced in half the air pollution level in the large urban areas of the country. Government will adopt and enforce European-approximated environmental standards on emissions and ambient concentrations, following an ambitious agenda. Within its four-year term, the Government shall enable elimination of surface polluted waters in the coastal area.
4. Priority shall be given to all the "environmental hot spots", caused by old and abandoned industries, aiming to fully neutralize and rehabilitate them. In specific cases families exposed to risks from these sites will be relocated.
5. Special importance is given to the prevention of soil erosion which is one of the main causes of flooding of the plain areas. Government will stop all the exploitive economic activities in the areas which have a high risk of erosion. Specific rehabilitation of protective dams, forests and pastures will be supported.
6. Environmentally friendly incentives for economic operators and individuals will be adopted in compliance with the principles of the free market. Fiscal incentives will be applied in order to promote reduction of pollution by businesses and individuals, investments in clean technology, conservation of energy, efficient use of natural resources and investment in environment. Government will establish a special Environment Fund that will be financed by environmental taxes and fines, as well as by donations. The Environment Fund will serve to finance projects for environmental protection and technological innovations that improve the environment.

7. Improved definitions of property rights and their enforcement will be introduced including the transfer of the ownership and the right of use of some environmental resources to the local communities, such as forests, pastures, waters, and land.
8. Specific measures will be adopted to prevent and stop the exploitative use of the wild fauna. Strengthening of the monitoring and protection capacities and increasing of the punitive measures will serve to this end.
9. Government will double the surface area under legal protection, ensuring not only the preservation of such areas but also their development through appropriate environmental and market instruments.
10. Public awareness of the environmental situation and risks is an important element of the government's environmental strategy. Civil society and independent organizations will be invited to offer their inputs in the drafting and implementation of environmental policies, and in particular for monitoring of environmental situation in the country. Environmental education of the public will be supported by specific programmes in cooperation with civil society. Government will review the environmental rights of the public and will improve the administrative and judicial appeal procedures, thus improving the access of environmental groups and citizens in general in bringing legal action against and punishing those that damage or pollute the environment.
11. The Government shall ensure a sustainable management of the natural resources, forestry and pastures, by preserving and ensuring biodiversity, productivity, renewable capacity, through guaranteeing the continuation of ecologic, economic and social functions on the local, national, global level.
12. Rehabilitation of the degraded forests, with the aim to return them in optimal condition, remains a priority for the sector of forestry and that of the environment in general.
13. In function of guaranteeing a sustainable use of the forestry and pasture resources, there will be acceleration of the pace of transferring forests and pastures under the local government units, a process which increases the role of local government in the sustainable planning and management of forestry and pasture resources;
14. The Government will aim at the increase and modernization, as well as diversification of the fishery fleet, for the latter to be capable of a sustainable use of the local and foreign fishery resources. The enlargement and improvement of the port fishery infrastructure and the infrastructure of repair, maintenance of ships in the country's four ports remains a priority of this sector. Included here is the building of markets in fishing harbours and of the fishery storing spots close to the main lakes.
15. The aquaculture should be considered an important and prospective sector for the domestic economy. In this context shall be encouraged the establishment of new trout-breeding centers mainly in North Albania, the increase of marine aquaculture the re-population with fish spawns of the big artificial lakes.
16. The Government will encourage at the same time the development of the fishery processing industry to supply both the local and foreign market.

### **2.3. Strategic Priorities**

The priorities set out in the Government Programme can be considered in terms of a number of generic goals.

#### **2.3.1. Enforcement of Environmental Legislation**

The enforcement of legislation and increases in punitive measures against transgressors of environmental legislation is undoubtedly needed. As discussed in Section 1, the enforcement of legislation is currently weak. Greater enforcement will require additional resources to be given to the Regional Environment Agencies. Strengthening the Regional Environment Agencies would also assist them to act as a means for communication between the National and the local level which will be increasingly important as the decentralisation process continues. Moreover, the Agencies would be able to act in an advisory capacity to assist local authorities in fulfilling their obligations in the environment sector and could play a more active role in raising local awareness, protecting natural resources and in the sustainable exploitation of the natural resources under their administration, including forests, pastures, water and fishery resources.

A successful application will also require improvements in the system of environmental licenses, which constitutes the main mechanism of control.

Law implementation and enforcement require at the same time awareness or changes of the general approach towards the environment. This would be feasible also through improvements of legislation and communication.

Whilst improvements in permits and enforcement will yield environmental benefits, such improvements should be realistic and achievable in line with the notion of "best available technology" whereby industries and other economic entities can plan their investments in new technology and environmental protection measures. It is not appropriate to require economic activities to compensate for the lack of communal service infrastructure such as sewers.

At present the level of respect for environmental law is moderately low. Achieving changes in behaviour and attitudes of individuals and of commercial entities will require a number of measures including improvements in legislation and communication. However, one of the key elements must be highly visible enforcement against the worst offenders. A series of enforcement campaigns to address specific problems will be needed.

As noted the level of administrative resource currently devoted to environmental protection is insufficient to achieve the level of enforcement required..

Strengthening of the 12 regional inspectorates is urgently required. There are currently only 40 inspectors for the entire country and many have no independent means of transport. The inspectorates need to have sufficient personnel and implementation resources to represent a credible deterrent to environmental crime. The level of personnel resources required to provide such a deterrent is difficult to estimate since it is dependent on the degree of respect for the law. Comparison with staff numbers in similar organisations in countries involved in the current wave of Accession suggests that a minimum of 10 staff per region is appropriate. This would entail an increase from the current 40 staff to 120.

Such an increase would increase the personnel costs to approximately three times their current level. However, simply increasing the number of staff will be insufficient. Additional equipment including vehicles computers and communication equipment will be required. This will entail new capital expenditure and additional ongoing operational expenditure. (Table 5)

**Table 5. Cost Estimates for Strengthening the Regional Environmental Agencies**

Category	Including	Total
Capital expenditure	Vehicles, office equipment, health and safety equipment	175 million Lek
Operational expenditure (annual)	Salaries, fuel, maintenance, administration	60 million Lek

If the costs of the capital expenditure are spread over a depreciation period of 7 years then the annual expenditure can be considered as approximately 85 million Lek per annum.

The forestry sector strongly necessitates consolidation of regional structures to a better performance of control (Sector of Forestry Police) and management (management, finance, supporting service). Forestry Police structures shall undergo transformation in function of a clearer division of control and management functions. At the same time they will be equipped with the necessary tools to better carry out their task in preventing violations in forests and pastures.

The structure of the Ministry of Environment, Forestry and Water Administration includes the Fishery Inspectorate, with offices in all the 12 regions of Albania. Such structure is responsible of checking lawful fishing activity and local representative of the Directorate of Fishery Policies (MoEFWA). In function of a better control of law enforcement in fishery, it is important to have in place a Monitoring, Control and Surveillance System. Such move requires restructuring and strengthening of the inspectorate current structure as well as the equipment with the due infrastructure.

### **2.3.2. Adoption of European Community Legal Standards**

Adoption of European Community standards for both emissions and ambient environmental quality is a requirement of the accession process. The actions required to achieve this are specified in the National Plan for Approximation of Legislation (NPAL). The personnel resource implications of undertaking this transposition process and supporting it through the provision of guidance are specified in the short term within the NPAL and are summarised in Table 6.

**Table 6. Resource Implications of Transposing the “*acquis communautaire*”**

Sector	Directorate'	2006	2007	2008	2009
Horizontal	EIA and Permits	2	2	2	
Air	Pollution Prevention		1		
Waste Management	Pollution Prevention		2		
Water Management	Water		1	8	
Drinking Water	Water				1
Water Pollution	Pollution Prevention		1		
Nature Protection <sup>5</sup>	Environmental Protection		8	2	2
Pollution Control	Pollution Prevention		2		
Chemical	Pollution Prevention		2		1
Noise	Pollution Prevention		1		
Climate Change	Pollution Prevention		1		
Emergencies	Civil Emergencies			2	1
	<b>Total</b>	2	21	14	5

This increase in public sector resources will provide increased capacity to transpose the *acquis communautaire* in the short to medium term. However it is not possible for either the public or the private sector to comply with all of these standards in the short or even medium term. As discussed in the following sections the scale of change and investment required is too great. Therefore the new legislation, including that set out in the National Plan for Approximation of Legislation will need to set interim targets which create a staged approach to the achievement of European Community Standards in the longer term.

Endorsement of standards for the air and water quality, urban waste management remains a priority issue for the investments in the urban and rural infrastructure, accompanied with a significant financial bill. Thus, the meeting of standards in the field of wastewater treatment and collection is estimated to require investments worth approximately Euro 826 million Euro (Tab. 7).

**Table 7. Estimated Programme Costs for water and wastewater**

Sector	2006-2010	2011-2015	2016-2020	Total
	€, million			
<b>Urban Wastewater</b>				
Connection to sewerage network	60.6	60.5	79.9	<b>201</b>
Sewage treatment facilities meeting basic UWWTD treatment standards	71.0	120.0	135.0	<b>326</b>
<b>Rural Wastewater</b>				
Connection to sewerage network or satisfactory septic tank systems	80.7	117.0	101.6	<b>299</b>
<b>GRAND TOTAL (in million €)</b>				<b><u>826</u></b>

Collection and treatment of urban waste also constitutes a standard, the fulfilment of which is quite expensive. Considering that the European standards require approximately 5 € per m<sup>3</sup> and assuming waste generation rates of between 300 kg and 500 kg per capita per year in the medium term, and a landfill lifespan of 15 years, a total cost of approximately 50 million Euros for landfill provision in the country can be estimated. It should be noted that this estimate does not take account of industrial, commercial or construction wastes. The cost of providing disposal space for such wastes would be additional. Nor does this

<sup>5</sup> It should be noted that the staff specified in respect of nature protection are intended to work on implementation in the protected area administrations.

estimate take into account the investments which would be needed in collection equipment such as containers and collection vehicles or in recycling equipment.

In order to ensure a balanced ratio between environmental protection and economic development, the intermediate standard should be determined based on a clear analysis of financial and economic sources needed for enforcing every part of the legislation. Such 'compliance cost assessment' have not yet been provided in detail. Therefore, it is advisable that apart from the above-identified staff, additional financial and economic sources be determined for an improvement of the proposed legislation.

Introduction of such improved procedures will allow for meeting temporary standards for longer periods, which will provide industry with a better regulatory framework, with which it may accomplish its business plans and take decisions on investment.

### **2.3.3. Capital Investment in Environmental Protection**

Based on the approximate financial analysis on compliance with the standards, it results that the current level of investment is insufficient to meet these needs in the middle term. Therefore the target is unlikely to be attainable in the timescale envisaged. Nevertheless it is crucial that the current programme of investments is strengthened and that a sustainable prioritised long term investment programme is developed as soon as practicable with a view to achieving European Community standards within the next 20 years.

Such a public investment programme will need to address:

- Drinking water supply – reliable, sufficient and of suitable quality
- Wastewater collection – sewerage in all towns of greater than 2000 population equivalent
- Wastewater treatment – secondary treatment of collected wastewater for all towns
- Solid Waste – collection, recycling and disposal (landfill and incineration)
- Land quality – remediation of the "hot spots"
- Technological improvement of state owned industries

As noted above, the cost of such a programme will be substantial. Much of this expenditure will need to be made through the public sector without excluding the contribution of the private sector.

Although commercialisation of waste collection services and of the operation of water utilities has been achieved in some areas, it is unlikely that privatisation of infrastructure with a view to attracting private sector investment would be successful. The current tariffs paid for such services are relatively low and would not provide sufficient revenue to make such investments financially viable to a commercial operator. Therefore, many of these investments will need to be made through the public sector. Current public expenditure on elements of the programme is insufficient to achieve this in the 20 year period cited above.

Investments will also be required by the Private Sector. The achievement of standards by private industry should be the subject of legal provisions, but may also be supported through the use of fiscal incentives or other economic instruments.

Expenditure by citizens / households will also be required including renewal of the vehicle fleet as referred to above, and in energy efficiency measures such as improved home insulation or newer higher efficiency appliances.

In determining the most appropriate investments, consideration must also be given to the operational costs associated with the investment. For example, the application of extensive wastewater treatment technology may require more land for its implementation, but the operational costs are much lower, thereby allowing for an affordable cost recovery tariff which disadvantages neither the consumer nor the service provider.

### **2.3.4. Financial Support for Environment Infrastructure**

The investments required for achieving the standards shall be assisted by the Environment Fund, which is to be established in line with the Government Programme in its second two-year term. This Fund shall finance environmental investment projects. It is envisaged that the Environment Fund shall address investment under the competence of several ministries, including activities like solid waste management, wastewater collection and treatment, and energy efficiency. In addition, the Fund shall cover the needs of the Environmental Protection programme.

The larger version of the Environment Fund would require significant budgetary amendments and a sharing of responsibility between several Ministries. Despite these complications such a “broad” environmental fund has been created in a number of European states. In most of the cases the fund is created as a “stand alone” financial entity established in law, which is managed by an executive board made up of the Ministry and other high ranking officials.

### **2.3.5. Environmental Resource Management**

The Government Programme addresses a number of issues in respect of environmental resource management including:

- Mineral resources exploitation – their sustainable administration without negative impact on environment,
- Forestry and pasture exploitation – sustainable management that guarantees their future,
- Fishery exploitation – administration in line with nature protection concepts,
- Land management – control of development in order to preserve landscape and biodiversity
- Protected areas sustainable administration – increase in the area of land designated and improvements in the management of these areas
- Soil protection – prevention of erosion and desertification
- Fauna protection – prevention of losses of flora and fauna due to unsustainable exploitation
- Water resources and water rights – control over used quantity of water and preservation of its quality

The basis for environmental resource management must be a clear command and control framework of laws which is implemented through a well monitored and enforced permit system. This is equally applicable to mineral resources as it is to water resources, pasture, fishery or land. The present systems are only moderately effective and need to be improved. In particular the process of resource allocation and permitting needs to be made more transparent and open to public scrutiny. A more comprehensive system of land use / spatial planning is being developed by the MoPWTT and this is strongly supported by MoEFWA. Existing mineral resource concessions should be reviewed and updated to ensure adequate environmental protection measures are required of the concessionaries. Similarly all new concessions should be subject to such provisions.

The Albanian Government considers the sustainable exploitation of forestry, pastures and fisheries as a priority in terms of its wide economic impact and its direct environment impact.

The following are the priorities in the field of forestry:

- Continuation of process of transferring forests and pastures to local government bodies with the purpose of giving communities full ownership rights.
- Preservation and restoration of forests and pastures through increasing investments and private and collective initiatives.
- Sustainable management of forests and pastures through a strategy for organized support for forestry products at all levels.
- Establishment of a monitoring system for a timely follow up of dynamic processes in forests and pastures, and timely intervention for restoring them.
- Encourage individual or collective initiatives for afforestation of uncultivated or abandoned land.
- Preservation, protection and improvement of biodiversity in forestry and pasture ecosystems.
- Suitable preservation and improvement of protective functions in forestry and pasture cultivation (in particular the protection of land, and water quantity and quality).
- Preservation of other social-economic functions and services, as well as insurance of multiple benefits for the society, the present and future generations.

Priorities for the fishery sector are:

- Numerical increase, restructuring and modernization of the fishing fleet,

- Restructuring of port and fishing centre infrastructure,
- Development of aquaculture as an important and perspective sector for local economy,
- Support for processing industry and fishing products marketing,
- Management of shared reserves, shared fishing and international relationships,
- Development of modern scientific research to assess the situation of fishing reserves for drafting proper management policies, and
- Enhancement of law enforcement.

### **2.3.6 Communication and Awareness**

The current level of environmental awareness is low. This results in damaging behaviour by citizens. Relatively low cost measures to raise public awareness could have a significant positive impact on environmental conditions. In particular attention should be given to measures which:

- Provide information for the public at a national and local level
- Enhance awareness of legal requirements
- Promote environmentally friendly behaviour

Some advances have been made in achieving effective communications in the field of environment, but this need to be consolidated and the resources of the MoEFA communications department strengthened to achieve the goals of the Programme.

In the longer term awareness will be raised through the educational system and the increased integration of environmental topics into the school curriculum and higher education programmes.

### **2.3.7. Decentralisation and Ownership**

Two other crucial issues arise from the government programme, decentralisation and ownership.

Decentralisation in the context of environmental management will lead to a far greater role for local authorities in the financing and management of local environmental services including water, wastewater and solid waste management. Local authorities do not currently have the financial resources with which to modernise these services. They will need the support both of central government and of external donors.

As stated in the Government Programme:

*The shared functions in the fields of education, health, environment, housing, social services, public order and road traffic will be fully implemented. The local governments will take autonomous decisions within the scope of their jurisdiction and collaborate under the principle of autonomy, subsidiary and partnership, with the central government as well as among themselves, for the achievement of the national objectives in these sectors, according to their own local priorities. The allocation of funds to the local governments in these public sectors will be implemented objectively and transparently, aiming to narrow the existing regional disparities.*

This statement is consistent with the need to establish a broad based Environment Fund which will act to allocate funds in a transparent and objective way which is consistent with the health, environment and development priorities identified in sector strategies.

Land ownership is also a vital issue for environmental management. In order to maximise the benefit obtained from land for both the economy and the people a system of spatial planning and land use control needs to be in place. However, such a system will only result in beneficial use of land if there is a functioning land market. Such a market is dependent on a secure and reliable system of land ownership. Such does not exist at present. In the absence of such provisions much uncontrolled and inappropriate development has taken place. In particular many dwellings have been constructed on small plots scattered across the rural areas of the country. The provision of services to such scattered locations is considerably more costly than if they were concentrated into a settlement.

In short, the secure ownership of land – functioning land market – allows the combination of economic and regulatory forces to create opportunities for all entities to utilise land for the most appropriate purpose and to maximise the overall benefit derived.

## 2.4. Goals, Measures and Targets

Goals and targets are drafted in such a way that they are in line with and give solutions for the problems identified in the 2005-2009 Program of the Albanian Government, the National Plan for Legislation Approximation, the National Socio-Economic Strategy, the Action Plan for Implementation of European Partnership Priorities, and an analysis of the environment current situation.

The goals of this strategy are:

- Achievement of required (EU, WHO) standards on air quality, water supply and treatment, noise, urban waste, protected areas with the purpose of improving the life quality;
- Reduction of greenhouse gas emission and ozone depleting substances with the aim of contributing to prevention of climate changes,
- Protection and maintenance of all ground and underground water resources for present and future use,
- Protection and improvement of land with the purpose of maximizing its fertility, minimize erosion, and prevent pollution,
- Protection and improvement of biodiversity, protected zones and species with the purpose of preserving the natural and cultural heritage of our environment in line with our European and international commitments;
- An effective spatial and development integrated planning, which takes into consideration the economic, social and environmental objectives in a balanced manner;
- Repair and restoration of seriously damaged zones with the purpose of preventing threats against public health and biodiversity due to these damages.

The goals are set as a result of an analysis of pushing forces (our needs or strategic priorities), main pressure on environment, the situation of environmental components, the effect of the environmental situation on the country socio-economic development, and the required response for minimizing such effects.

Goals are the first level of response, and as such, they are specified as continuous commitments with no special timelines. Goals are set for focusing the achievement of the objectives in several sectors. As described below, goals with certain limited timeframes are set in order to ensure that objectives are met in accordance with measures available and their feasibility.

### 2.4.1. Fulfillment of environmental standards

Environment quality standards (EQS) can be set in a number of ways, but the two most common ones are:

- Setting limits on the amount of pressure which is put on the environment; or
- Defining the condition of the environment which we want to achieve.

The two concepts are brought together in the **combined approach**<sup>6</sup> in which emission limit values set in the permits for operations take account of best available technology (BAT) and emission norms as well as the need to achieve EQSs in the environment.

However, to apply the combined approach effectively requires sufficient monitoring data on emissions and on the state of the environment to enable quantitative evaluation of cause-effect relationships and for load apportionment<sup>7</sup>. Therefore the short term targets put forward in this strategy focus primarily on achieving reductions in pressures so as to achieve compliance with emission limit standards.

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<sup>6</sup> See for example Article 10 of the European Water Framework Directive (2000/60/EC)

<sup>7</sup> Load apportionment is the process whereby the permissible load to the environment is assigned to different sectors in order to determine the emission limit values under the combined approach – see for example the USEPA approach to water pollution control - <http://www.epa.gov/owow/tmdl/overviewfs.html>

### 2.4.1.1 Air Quality

Four main goals are identified for this sector. Two relate to the achievement of short term reductions in the pollution of the environment. Measures to achieve these reductions are specified below. Two further goals are crucial for the continuing protection of air quality namely the collection of data on the quality of ambient air and a system of planning and control which will ensure achievement of air quality objectives in the long term.

Issue	Goals	Target Date
Standards	Reduce by 50% the number of instances of non-compliance with air quality objectives	2009
Standards	Eradicate breaches of air quality standards which are more than twice the standard	2009
Monitoring	Implement a system of national air quality monitoring in compliance with European Community requirements	2014
Planning	Institute a system of national and local air quality management planning	2009

#### Measures

Measures to achieve the goals specified above are summarised here:

#### **AQ1 Air quality monitoring network compliant with EC monitoring requirements**

AQ1.1 EC compliant environmental monitoring in 6 cities in 2008

AQ1.2 EC compliant emissions monitoring at all permitted fixed point sources installations in 2011

AQ1.3 National air emissions inventory established in 2008

AQ1.4 Monitoring in all urban centres/industrial zones in 2011

AQ1.5 Full national monitoring network including rural stations in 2014

*The costs associated with monitoring will be borne by the public sector and donors' contribution.*

#### **AQ2 Control and reduce emissions from motorised vehicles**

AQ2.1 Use of EC standard fuels in all road vehicles by the end of 2009

AQ2.2 Effective Compulsory emissions testing for all road vehicles to EC standards by end of 2008

*A small increase in public expenditure will be required to implement these measures, but the main economic impacts will be on domestic fuel producers who are unable to meet the fuel standards and on vehicle owners who will pay a slightly increased price for fuel. This latter increase may well be offset by increases in vehicle efficiency arising from the use of higher combustion rating diesel.*

#### **AQ3 Control and reduce emissions from industrial installations**

AQ3.1 Existing industrial installations - emission reduction for all major installations by 2009

AQ3.2 IPPC (Integrated Pollution Prevention Criteria) permitting system introduced in 2009

AQ3.3 All industrial plants complying with permits and EC standards in 2014

*Strengthening of the Regional Environment Agencies as described above will be required. Significant expenditure will also be required of the public sector in the medium and long term.*

#### **AQ4 Control and reduce dust emissions from construction**

AQ4.1 Construction industry code of practice introduced in 2008

AQ4.2 All new public works contracts to include environmental management requirements in 2010

*Minor costs associated with inspection of construction works and improved construction works practice can be expected, but these are unlikely to be significant in comparison with the corresponding benefits.*

#### **AQ5 Air Quality Management Planning**

A system of air quality management planning will be introduced through revisions to air quality legislation. This will require local, regional and national authorities to assess the results of data provided by the monitoring system and to determine the most appropriate actions to address instances where there is non-compliance with environmental quality standards.

*Additional expert staff in the MoEFWA will be required and training will need to be provided to regional and local staff in the preparation of plans.*

#### **2.4.1.2 Climate Change and Energy**

The main focus for these issues is the improvement in energy efficiency in all sectors in order to reduce the need for load shedding (power cuts) and the level of emissions. A concerted programme of public awareness and of enforcement of relevant standards, (such as those for the insulation of buildings) is required.

The most powerful instrument for reducing emissions is mainstreaming the objective of reducing greenhouse gas effects in the decision-making process at various levels:

- Government – particularly the strategies on energy, economy and transport must include steps for limiting emissions;
- Industry and Commerce – must be encouraged to be efficient in terms of energy and emission reduction;
- Individuals – must be persuaded to see energy efficiency as a criterion in their actions and purchases.

Such measures need to be accompanied by amendments to the legal framework, and an introduction of economic instruments in order to encourage reduction of greenhouse gas emissions and use of renewable energy resources.

#### **CC 1. Amendments to legal framework**

CC 1.1. Legal framework on energy efficiency for 2008 new buildings

CC 1.2. Legal framework on energy efficiency for all domestic appliances by 2010

CC 1.4. Amend the law as to establish energy efficiency requirements for industry permits in 2008.

#### **CC 2. Introduction of Economic Stimuli**

CC 2.1. Introduction of Carbon Tax, the income of which will go to Environment Fund in 2008

CC 2.2. Creation of a grant of subsidiary scheme on Energy Efficiency in 2009

CC 2.4. Review of energy price strategies or policies with the purpose of drafting a stimuli-based policy for setting prices in 2008

CC 2.5. Publication of mid and long-term prospects on energy prices and advice on all sectors relevant to energy efficiency in 2008-02-07

#### **CC 3. Reduction of greenhouse gas quantity emitted by transport and energy**

CC 3.1. Review of Transport Strategy in compliance with Environment Strategic Assessment provisions in 2008

- Improvement of road transport infrastructure
- Increase public transport for passengers and goods

CC 3.2. Introduction of low emission vehicles in 2009

CC 3.4. Review of Energy Strategy in compliance with Environment Strategic Assessment provisions to enable use of renewable energy resources in 2008

- Wind energy
- Hydric energy
- Solar energy
- Geothermal energy
- Biomass energy, etc.

CC 4. Awareness campaign on reduction of greenhouse gas quantity

CC 4.1. Promotion of energy efficiency in industry in 2008

CC 4.2. Improvement of thermal isolation and reduction of misuse of energy for home heating or cooling in 2009

CC 4.3. Promotion of domestic appliances that spend less energy in 2008

CC 4.4. General improvement of energy efficiency at home, including lighting, and appliances heating or cooling control systems by 2009

CC 4.5. Promotion of solar water heating against electric heaters for families in 2010

CC 4.6. Promotion of energy efficiency measures in the sector of commercial service in 2010.

#### **2.4.1.3 Waste Management**

In this sector, the strategy foresees the eradication of the dumping of waste at unauthorised locations within 2012, ensure their safe disposal and disposal of 50% of non-hazardous solid waste to engineered landfills within 2010, through:

No.	Issue	Objective	Target Date
1	Hazardous Waste	Safe disposal of 75% of hazardous waste production	2009
3	Solid Waste	Recycling of 10% of urban waste	2009
4	Solid waste	Eradication of the widespread regular dumping of waste at unauthorised locations	2012
5	Solid waste	Improvement of the conditions at existing authorised waste disposal sites including litter reduction and fire prevention	2009
6	Solid waste	Disposal of 50% of non-hazardous solid waste is to engineered landfills	2010

#### **WM1 Definition of best practice for waste management in the medium term**

This will entail the development of a package of guidance documents for local authorities on the planning and operation of waste collection and disposal services – this should be undertaken jointly by the MoEFWA and MoPWTT.

*Additional staff requirements in MoEFWA are identified in Table 6 above.*

#### **WM2 Waste Management Planning System**

Local and regional authorities will be obliged to prepare waste management plans in accordance with the best practice guidelines (WM1) by 2008 and to implement these plans until 2014.

*Additional resources may be required in many municipality and commune administrations in order to achieve this.*

#### **WM3 Implement Priority Projects for Waste Management – Phase 1**

On the basis of existing waste management plans and feasibility studies for regional landfill sites, investments should be made using government and donor finance to ensure the completion of five regional landfills by 2012.

#### **WM4 Implement Priority Projects for Waste Management – Phase 2**

On the basis of the waste management plans developed under WM2 further priority projects should be identified and implemented so as to ensure that engineered sanitary landfill sites are available for disposal of municipal waste throughout the country by 2014.

#### **WM5 Hazardous waste management**

WM5.1 Establishment of Hazardous Waste Landfill Site(s) by 2009

WM5.2 Accurate and reliable data on the production of hazardous waste and its current management by 2009

WM5.3 National Hazardous Waste Management Plan by 2008.

*The collection of data and the preparation of the National Plan will require the strengthening of the Regional Environment Agencies and the MoEFWA as discussed above.*

#### **2.4.1.4. Water Resources Management**

The most crucial consideration at present is the pollution of surface waters which is arising from the discharge of untreated wastewater. Therefore the primary goals have been set in respect of this issue.

<b>Indicators</b>	<b>2009</b>	<b>2014</b>
<b>Improved urban sanitation:</b> percentage of population connected to sewerage network	75	85
<b>Urban wastewater treatment</b> percentage of population connected to sewage treatment facilities meeting basic UWWTD treatment standards	25	50
<b>Improved rural sanitation</b> percentage of population connected to sewerage network or septic systems	55	65

#### **WRM1 Efficient and sustainable water sector management systems**

WRM1.1 Further capacity building local authorities and Water-Supply and Sewerage Enterprises

WRM1.2 Legal and Planning framework for river basin management by 2007

WRM1.3 Effective permitting system for abstraction of water and discharges to water by 2009

*The implementation of an effective permitting system will require the strengthening of the Regional Environment Agencies and the MoEFWA as discussed above.*

#### **WM2 Implement Priority Projects for Wastewater collection and treatment – Phase 1**

On the basis of existing plans and feasibility studies for wastewater projects, investments should be made using government and donor finance to ensure the achievement of an urban sewerage connection rate of 75% and appropriate treatment for at least 25% of all collected wastewater by 2010.

*The investment costs for projects are discussed in detail below.*

#### **WM3 Implement Priority Projects for Waste Management – Phase 2**

On the basis of the plans developed pursuant to WRM1 above investments should be made using government and donor finance to ensure the achievement of an urban sewerage connection rate of 85% and appropriate treatment for at least 50% of all collected wastewater by 2014.

*The investment costs for projects are discussed in detail below.*

#### **WRM4 Reduction in point source pollution of surface water**

Reduction in the pollution of surface waters from non urban sources including industrial and agricultural processing units will be reduced through the implementation of improved permits, increased inspection and stronger enforcement of legal requirements.

*The permitting, inspection and enforcement provisions will require the strengthening of the Regional Environment Agencies and the MoEFWA as discussed above.*

#### **WRM5 Reduction in diffuse source pollution of surface waters**

WRM5.1 Reduction in diffuse source pollution from Agriculture through the introduction and promotion of a code of good agricultural practices by 2009.

WRM5.2 Reduction in diffuse source pollution from Forestry through the introduction and promotion of a code of good forestry practices and the completion and implementation of forestry management plans by 2009.

*Both measures are cross cutting – resource implications are not specified here.*

#### **WRM6 Protection of groundwater**

WRM6.1 Strong legal basis for the protection of groundwater by 2007

WRM6.2 Implementation of groundwater protection zones by 2009

*The introduction of the legal basis will not have resource implications. Implementation of groundwater protection zones will be dependent on the strengthening of the Regional Environment Agencies.*

#### **WRM7 Monitoring of water**

WRM7.1 Environmental surface water monitoring

WRM7.2 Groundwater monitoring

*Improved monitoring of both surface and groundwater is required to provide data for water resource management planning and for the prioritisation of investments for water protection.*

#### **2.4.1.5. Soil Protection**

Soil protection consists of:

- SP1 – Reduction of erosion level and the damages it causes;
- SP2 – Preservation of agricultural land in a good productive and environmental state;
- SP3 – Reduction of land pollution level;

Reduction of erosion is closely related with the practices of forestry and pasture use, as well as with agricultural practices. The main instrument for forests and forestry zones (in remote mountainous areas) are Forests Administration Plans, which should address:

- Illegal cutting of forests and forest for commercial purposes – this is going to be solved through control and punishment measures against law violators,
- Illegal cutting for firewood – The plans should identify the zones where alternative or subsidized firewood may be used for helping local communities to end this practice;
- Stabilisation projects on land slide risks and trees replanting – to be done through an accelerated process supported by the Environment Fund.

In lower zones, where agricultural production is more intensive, the presentation and encouragement of the application of the “Good Agricultural Practice” is necessary to minimize erosion. This Code shall also address land maintenance and agro-chemical input use. Agriculture is not the only cause of erosion in lowland zones, as forestry is not its only cause in high mountainous areas. Construction practices, including

road and building construction also lead to erosion, especially due to poor compliance with drainage requirements. Therefore, a series of instructive documents are going to be needed for solving these issues.

### **SP 1. Reduction of river banks and beds erosion**

SP 1.1. Decision of Council of Ministers on construction of protection banks along the main rivers – construction activities on these protection banks shall be stopped or be subject to strict inspection.

SP 1.2. Joint Inter-Ministerial Instruction, which bans issuance of new licenses for gravel extraction from river beds, unless this is approved by the National Council of Waters.

SP 1.3. Campaign of measures on prevention of illegal gravel extraction or sand from river beds, including fines, sequestration and criminal proceeding.

SP 1.4. Drafting of priority projects on rehabilitation of river beds, which are presented to the Environment Fund for review.

### **SP 2. Reduction of erosion in high mountainous zones**

SP 2.1. Drafting of priority plans on Forestry and Pasture Administration in high mountainous zones.

SP 2.2. Instructions on Forest Administration simplified Plan (FAP), including banning of illegal cutting, replanting and measures on rehabilitation of zones.

SP 2.3. Inventarization of worst affected areas and setting of priorities for the application of the simplified FAP.

SP 2.4. Joint drafting of priority simplified FAPs on zones of priority, including preparation of the project goals on restoring urgent measures.

### **SP 3. Reduction of erosion in lowland zones**

SP 3.1. Incorporation of measures on minimization of land erosion in the Code of Good Agricultural Practice.

SP 3.2. Promotion of measures recommended in the worst affected areas.

SP 3.3. Inventarization of the highly affected areas in the lowland region and setting of priorities for preparing and presenting for approval projects for their rehabilitation.

#### **2.4.1.6. Biodiversity**

Preservation of biodiversity is one of the key elements of a sustainable development. The Biodiversity Strategy and the Action Plan approved in 1999 represent the main document which determines the goals, objectives and measures on the administration of biodiversity in Albania for 2000-2015. This document is also reflected on the National Cross Cutting Strategy. Despite a considerable progress achieved in the implementation of the Biodiversity Strategy, there are still some key actions that need to be undertaken in the future.

Approval of Wetland Strategy prepared in the framework of the country obligations as a party in the Convention on preservation of wetland environment, otherwise known as Ramsar Convention.

Reorganization of Protected Zones Administration

<b>Issue</b>	<b>Objective</b>	<b>Target Date</b>
Designated areas	<p>Increase in areas of country designated as protected to ensure that:</p> <ul style="list-style-type: none"> <li>• all ecosystem types are represented in the protected area network</li> <li>• the network is coherent and supports the Species Action Plan objectives in 10% of land area</li> <li>• the practical application of Pan-European Ecological</li> </ul>	2009

	Network elements mainly in its central areas.	
Designated areas	Further increase in protected areas to 15% of land area focussing on announcing coastal protected zones.	2014
Designated areas	Management plans completed for all existing protected areas (Strict Natural Reserves, National Parks and Monuments of Nature)	2011
Designated areas	Implementation of management plans for all existing National Parks	2009
Designated species	Species Action Plans completed for all protected species	2009
Whole territory	Reduction of level of unauthorized exploitation of species and authorised exploitation through reviewing the criteria for the hunting areas, species not subject to hunting, as well as crops rate for these species in accordance with the sustainable development principle and by respecting the environmental balance.	2009
Whole territory	Updating of Biodiversity Strategy and Action Plan	2009
Whole territory	Approval of Wetland Strategy prepared in the framework of the country obligations as part of the Convention on preserving wetland environment, known otherwise as the Ramsar Convention.	2008
Designated areas	Ongoing Biodiversity Monitoring	2007-2014
Whole territory	Establishment of an administrative authority responsible for Genetically Modified Organisms inspection and Risk Assessment, as well as the drafting of the relevant legal framework.	2009-2014

*The achievement of these goals will require a marked increase in the level of resources provided for the purposes of management planning and enforcement. Some additional resources are identified in Table 6 above, but further strengthening of the protected areas administrations will be required.*

#### **2.4.2. Land Use Management**

These issues are of crucial importance to environmental management. Two main issues arise:

- Land Use Planning (spatial planning)
- Enforcement of controls

Measures being taken by the Ministry of PWTT to reform the spatial planning system are fully supported by the MoEFWA. The MoEFWA will work with the MoPWTT to provide guidance to local authorities on the integration of environmental considerations into the new land use plans. Land use management plans (spatial plans) will need to be subject to the provisions for strategic environmental assessment: this will require additional resources in the MoEFWA to monitor the implementation of these provisions.

<b>Issue</b>	<b>Objective</b>	<b>Target Date</b>
Illegal Development	Less than 10% of construction activity is undertaken without required permissions	2008
Existing informal development	Regularise 50% of existing informal developments	2010
Local Spatial Plans	Local plans are subject to environmental assessment and incorporate environmental considerations	2009

#### **2.4.3. Environmental Damage**

The term “environmental damage” is used to refer to its most ordinary form, i.e. contamination of soil with substances of high toxicity – “hot spots”. However a wider scope of damage is considered here. In most cases the damage arises from industrial activities which have now mostly been abandoned, including:

- Mines – underground extraction of coal and minerals

- Underground extraction – oil, gas, water
- Quarries – above ground extraction of minerals
- Factories or processing plants
- Waste disposal sites including factory dumps, tailings dams and similar

In summary the steps which need to be taken in restoring any site of environmental damage can be considered as:

- Analysis of the extent and nature of the problem – risk assessment
- Consideration of options leading to a preferred method – options appraisal
- Detailed project development leading to a tender specification – preparing for clean up
- Contract award and implementation – clean up

Some of these steps have already been taken in respect of the most important “hot spots”, but most remain unfit for future development.

Issue	Objective	Target Date
Feasibility	Complete feasibility studies and project dossiers for all hotspots	2009
Remediation	Achieve remediation of the worst 40% of contaminated land	2010

#### **2.4.4. Sustainable development and management of forestry and pastures**

The sustainable and multifunctional management and development of forestry and pasture resources is a necessity, because forests and pastures are a valuable heritage for Albania. Such heritage needs to be protected and regulated in a way that it enables a greater economic development in the future, without breaking the natural biological balance, and contributing to the reduction of the poverty level.

Administration must aim at a sustainable management of the forestry and pasture resources, a fair division of benefits and goods generated by the protection and use of natural, forestry, and pasture resources and remediation of the ecologic integrity of forests and pastures in the country.

Administration shall be realized by breaking down the objectives into the following measures:

##### **FSA 1. Forestry continuous protection and remediation**

FSA 1.1. Forestry conservation through reduction and disruption of illegal cutting.

FSA 1.2. Preservation and remediation of damaged and degraded forestry and pasture ecosystems through cultural cutting, re-forestation of unrestored surfaces, afforestation of uncultivated surfaces with pioneer species and remediation of pastures with forage and tree planting.

FSA 1.3. Creation of state economies with regular oak groves.

##### **FSA 2. Organization of a modern forestry cadastre as a basis for preservation of the forestry fund.**

FSA 2.1. Organization of a modern forestry cadastre, which would document and update the forestry assets not only in terms of surface and size, but also as a value and property at all administration levels.

FSA 2.2. Provision of modern technology, including GIS, remote sensing, etc to the cadastre sector.

##### **FSA 3. Preservation of nature and promotion of ecotourism**

FSA 3.1. Drafting and implementation of a national plan on developing tourism in forests and pastures, as well as in several protected areas.

FSA 3.2. Participation of the Government in supporting and developing the infrastructure, crediting and private tourism through making concessionary arrangements for forests and pastures for entertaining purposes.

FSA 3.3. Increase of ecotourism receiving capacities through investments in rural homes. Training of tourist guides.

#### **FSA 4. Promotion of sustainable and multifunctional sustainable use of forestry and pasture resources**

FSA 4.1. Promotion of social and protective functions for forests and pastures.

FSA 4.2. Promotion of productive potential for non-wood products.

FSA 4.3. A study and identification of the situation, exploitation systems, and sustainable and multifunctional integrated administration.

FSA 4.4. Organization of work for a rational assessment and management of pastures.

#### **FSA 5. Encouragement of private activities**

FSA 5.1. Conduction of works and services in state forests and pastures by companies specialized in conducting productive activities and services in forests and pastures.

FSA 5.2. Liberalization of selling tariffs for industrial wood and firewood materials of state productive forests in line with the offer-demand law.

FSA 5.3. Collection of a tax on the service that forests do to hydro power water-collecting basins, and drinking water against erosion and improvement of existing forests.

FSA 5.4. Encouragement of establishment of 500-1000 hectares productive units giving them for long-term use for silvopastoral use.

FSA 5.5. Perspective development of wood industry in Albania.

FSA 5.6. Long-term authorization of use of woodland for hunting development.

FSA 5.7. Authorisation of use of rejected or eroded land for afforestation purposes.

#### **FSA 6. Continuation of transfer of use/ownership right over forests and pastures to the local government.**

FSA 6.1. Continuation of transfer of use/ownership right over forests and pastures to the local government, increasing the number of families benefiting from forestry products.

FSA 6.2. Meeting the needs of rural population with fire wood and construction materials.

FSA 6.3. Identification of stock-breeding capacity of commune forests and organization of forestry economies for pasturing purposes.

FSA 6.4. Improvement of legal framework, particularly towards an active involvement of local users in forestry and pasture management.

#### **FSA 7. Organization of consulting service and commune forestry administration**

FSA 7.1. Development of consulting service attached to Albanian Forestry Service

FSA 7.2. Development of awareness programs for local players and communities

FSA 7.3. Strengthening of local government capacities for forestry and pasture management

FSA 7.4. Creation of communal forestry administration under the local government

#### **FSA 8. Continuation of institutional reform aiming at establishing effective and appropriate central and local structures**

FSA 8.1. Creation of Regional Forestry Directorates

FSA 8.2. Empowerment of the responsible state institutions

FSA 8.3. Division of controlling functions from forestry and pasture management functions

FSA 8.4. Increase of forestry police efficiency

FSA 8.5. Fine tuning of forestry administration structure, making it more flexible and bring it closer to the local level.

#### **2.4.5. Sustainable fishery resources administration**

Fishery is one of the important sectors of the Albanian economy with a high number of income and employees. As such, it deserves the attention of the Government policies for its further support and development based on sustainable fishery resources exploitation.

The purpose of the proposed interventions below is to ensure higher fishing output, reduction of pressure on coastal bottoms and diversification of fishing in higher depths and other forms other than trawler fishing.

The most important investment in modernising the fishing fleet needs to be focused on constructing new fishing boats, including small vessels and boats of over 25 metres of length and 500 hp of power. The small vessels will carry out fishing activities with selective means in the close shore, combining it also with ecotourism and sports fishing, while the bigger boats will serve for fish hunting in deeper waters, and mainly further than 12 miles from the shore, in the Adriatic and Mediterranean international waters.

It is foreseen that production of fish and molluscs caught in the short-term (year 2009) reaches 6500 tons, 15300 tons in the medium term (year 2013), and 34000 tons in the long term (year 2015).

The intended objectives in the artisan sea fishing are 1000 ton (short-term), 2500 ton (mid-term) and 3500 ton (long-term).

The inland-water fishing objectives are from 650 ton to 800 ton (short-term), 1000 ton (mid-term) and 1300 (long-term).

In hydro energetic waters the fishing objectives are 3500 quintals or 350 ton.

With the measures taken for improving fishing in coastal lagoons, fishery is expected to go up to 6000-6500 quintals or 650 ton.

#### **SFRA 1. Increasing, restructuring and modernizing the fishing fleet**

SFRA 1.1. Increase number of new and modern boats, 22-25 to 30 metres of length and 400-500 Hp motor power, and modernize partially the fishing fleet.

SFRA 1.2. Diversification of fishing fleet, introducing alternative fishing forms like pelagic fishing, encircling nets, selective fishing with nets, baits, hooks, etc.

SFRA 1.3. Facilitation of procedures for involving foreign specialists in sea fishing.

#### **SFRA 2. Complete restructuring of port and fishing centres infrastructure**

SFRA 2.1. Construction of a new fishing port in Durrës, extension of existing ports and construction of jetty of fishing boats in Vlora, Saranda and Shëngjin.

SFRA 2.2. Establishment of infrastructure for repairing, maintaining fishing boats, qualitative improvement of the range of services in the fourth ports of the country.

SFRA 2.3. Construction of wholesale markets at fishing ports with the purpose of increasing the quality of product, value of product, fight against informal market and increase level of competition.

SFRA 2.4. Construction of fish collection centres near the main lakes for improving hygienic-sanitary conditions for fish products.

The above measures will lead to an increase of technical indicators in the fishing fleet, a considerable increase of fish capture, and a reduction of the production cost making this sector competitive in the

regional market. Renewal of the fishing fleet will be covered by three main financing sources: (1) private investment, (ii) donors, and (iii) the state budget.

### **SFRA 3. Development of aquaculture as an important and perspective sector for local economy**

SFRA 3.1. Creation of new aquaculture centres, mainly in the north.

SFRA 3.2. Increase of number of cage culture/floating baskets in the sea,

SFRA 3.3. Increase of level of control over the application of sanitary-veterinary measures for guaranteeing the product both for the local and European market.

SFRA 3.4. Free existing economy from informality and facilitation of legalization procedures.

SFRA 3.5. Increase of fish sapling production in the country and food supply as restrictive factors in the development of this activity.

SFRA 3.6. Repopulation of big artificial agriculture water collectors and lakes with fish sapling.

*Our country has suitable conditions for multiplying mariculture product in all kinds of activities. Under these circumstances, the above measures aim at doubling the output in existing plants. The application of above measures will lead to a short-term exploitation of 4.000 quintals of fish, 10.000 quintals of mussels, and 100 quintals of shrimps. The mid-term objective is 30.000 quintals of fish, 20.000 quintals of mussels, and 200 quintals of shrimps. The long-term objective is 45.000 quintals of fish (of which 8.000 quintals inland), 40.000 quintals of mussels, and 500 quintals of shrimps.*

*As for the (short-term) development of trout culture, stabilization of product in the existing economy is the objective. In the mid-term, the aim is to build the economy in the regions of Kukës, Dibra, Shkodra, Lezha with a productive capacity of 10.000 quintals, and 20.000 quintals at the national level in the long-term.*

### **SFRA 4. Support for processing industry and fish products marketing**

SFRA 4.1. Increase of local processed fish products for Albanian and European market.

SFRA 4.2. Facilitation of customs procedures for importing fish products used as raw material for the processing industry.

SFRA 4.3. Support of processing enterprises in terms of increasing employment.

SFRA 4.4. Increase of fish product consumption, processed or non-processed in Albania.

SFRA 4.5. Increase of veterinary-health control level for fish products from the producer to the final product.

*Based on the above measures, the processing industry is expected to reach the level of 4000 tons of processed fish, and employ over 2000 people in the short-term; produce 6000 tons of products and employ about 3000 people in the mid-term; and produce over 10.000 tons of fish and employ more than 8000 people in the long term.*

*At the marketing level, the objective is to build markets in Durrës and Shëngjin, as well as fishing centres in the inland waters, build markets in Vlora and Saranda in the medium term, and consolidate the established markets in the long term.*

*Fish consumption per capita is expected to increase to 4.5. kg in the short term, 9 kg in the medium term, and 15 kg in the long term.*

### **SFRA 5. Shared fish reserves management, shared fishing and international relations**

SFRA 5.1. Drafting and implementation of fishing management plans for main fishing zones, including monitoring mechanisms.

SFRA 5.2. Application of a regulated fishing with the purpose of avoiding the risk of conflict between various forms of fishing, particularly between the professional and artisan fishing.

SFRA 5.3. Prevention or elimination of overfishing with the purpose of encouraging favourite economic conditions for encouraging responsible fishing.

SFRA 5.4. Ensuring and supporting alternative sources of income, including tourism and aquaculture for creating diverse options of income in the fishing community, where fishing is unsustainable.

**SFRA 6. Modern scientific research capable of assessing the state of fishing resources for drafting appropriate management policies**

SFRA 6.1. A scientific research according to and serving to the sector needs.

SFRA 6.2. Application of suitable and effective systems for collecting, analyzing, recording and presenting data on the fishing sector, so that they may be used for fishing planning.

SFRA 6.3. Encourage economic studies of cost, benefits and alternative management options for a responsible fishing.

SFRA 6.4. Empowerment of research in fishing and aquaculture to support the identification of fish resources status.

**SFRA 7. Law enforcement**

SFRA 7.1. Establishment and functioning of a professional and responsible structure for ensuring the correct application of the fishing law and mechanisms that guarantee the operation of MCS (monitoring Control Surveillance) in all fishing categories in Albania.

SFRA 7.2. Establishment of a co-operation operational scheme of the MEFWA and other state bodies, as well as the Fishing Management Organizations by clearly identifying their roles in the fight against illegal, irregular and unreported fishing for a responsible fishing management.

SFRA 7.3. Provision of a financial support for guaranteeing the necessary infrastructure for the creation and operation of MCS instruments and the fight against Illegal, Irregular and Unreported Fishing.

SFRA 7.4. Guaranteeing a continuous legal improvement in compliance with EU standards and directives, a harmonious regional and international co-operation, as well as a continuous legal information for the entire fishing administration and community.

SFRA 7.5. FMO training for empowering their role in law enforcement in the fishing sector.

*Our objectives in terms of legal compliance are to record all fishing subjects, fishermen, identification and registration of ships, boats, and fishing means, inspection/control, reporting on products on a reliable statistical basis and processing of data for providing policies with precise indicators for sector development and control.*

### 3. Policies

The purpose of policies is to assist in reaching the strategy objectives. A good environment management requires practices to measure development at all government levels, including the central, regional and local level. Therefore, it is necessary that:

- central decision makers realize the environmental issues and integrate environmental principles in their administration policies and systems,
- a comprehensive legal framework,
- effective mechanisms for implementing and imposing policies and law, including processes of imposing instruments of economic and financial planning,
- ongoing support for environment education, training and information,
- means for the strategy effectiveness assessment and its measures through monitoring and reporting,
- investment as an essential part that is turned into an effective means if wisely managed.

<b>Ref</b>	<b>Issue</b>	<b>Solution</b>
3.1.1.	<b>Integration</b> Environmental issues are not adequately addressed in sector strategies and the development process generally	Reinforced inter-institutional communication and consultation processes at all working levels; better external consultation mechanisms; formal introduction of strategic environmental assessment; general and sector specific guidance to government Ministries and local authorities on SEA
3.1.2	Environmental <b>law</b> – refinement, transposition in line with EC requirements and its implementation  The current legislation contains serious structural weaknesses	Maintain the integrated approach of existing legislation but amend key primary acts to ensure consistency and enforceability
3.1.3	<b>Permit</b> preparation and issue  Permits are insufficiently specific or precise	Revise permit structures to introduce enforceable conditions in parallel with legislative reform
3.1.4	<b>Verification</b> and Inspection	Improve procedures, capacity and expertise in inspection bodies
3.1.5	<b>Enforcement</b> and <b>appeals</b>	Implement reformed enforcement procedures aiming at full recovery of charges and fines  Develop a simple administrative route for appeals without the need for court proceedings
3.1.6	Reinforcement of <b>monitoring</b> systems	Build on current projects to create a system that meets the needs of <i>acquis</i> and EEA
3.1.7	Communal <b>Infrastructure</b> Investment and the Environmental Fund	Establish Environmental Fund and associated provisions to support local authorities in obtaining the necessary funding for essential environmental infrastructure
3.1.8	<b>Institutional Capacity</b> and Staffing needs	Determine and implement appropriate management structure, expand staff  Reinforce inspectorate and its equipment, develop inspection plans, identify realistic

		enforcement procedures
<b>3.1.9</b>	<b><i>Management and Reporting</i></b>	Create high level management and reporting structure to support inter-institutional coordination and cooperation
<b>3.1.10</b>	<b><i>Information and Communication</i></b>	Develop Environmental Information Management System (EIMS) and Implement Communications Strategy

## 4. Resource Implications

The budgetary provisions for the Ministry of Environment Forestry and Water Administration are stated in the working instruction for strategy preparation. The figures indicate the following budgetary changes in the short term:

Expenditure growth rate		18.30%	10.20%	9.90%
	2006	2007	2008	2009
Total expenditure ceiling	157,199	186,016	205,020	225,241
Ministry of Environment, Forests and Water Administration	1,544	1,672	1,835	1,985
MoEFWA spending as a percentage of expenditure ceiling	0.98%	0.90%	0.90%	0.88%
Effective expenditure growth rate for MoEFWA		8%	10%	8%

Although the level of expenditure is increasing due to increased government revenues, the proportion which is being spent on Environment, Forestry and Water Administration is decreasing. As such the expenditure growth rate for the Ministry is lower than the growth rate of the expenditure ceiling.

The utilisation strategy for increased expenditure is to increase the number of central Ministry staff and staff in supporting institutions in accordance with the priorities stated in the NPAL. However, an 8% increase in central Ministry staff in the Environment sector amounts to an additional 7 posts, plus an increase of approximately 6 posts in supporting institutions, i.e. a total of 13 compared with the 21 stated in the NPAL.

The forecast staffing numbers possible on the basis of the stated budget are estimated to be:

	2006	2007	2008	2009
Central	92	100	109	118
Support	65	70	77	84
Total	157	170	187	202

The forecast need for staff in order to undertake transposition and to improve some elements of nature protection administration is estimated to be:

	2006	2007	2008	2009
Central	92	105	117	120
Support	65	73	75	77
Total	157	178	192	197

Comparison of these figures indicates an initial shortfall, but that in the short term it is possible to assign adequate numbers of staff to the transposition process. However, transposition is only one element, and usually the least costly element, of achieving compliance with European Community legislation in the field of environment. Implementation and enforcement are also required.

Improved enforcement and inspection is vital to ensure that the laws which are transposed are actually complied with. Without such provisions the laws will serve a very limited purpose. As discussed above there is a need to strengthen the Regional Environmental Agencies so that they can undertake permitting, inspection and enforcement functions. No account is taken of this need in the figures shown immediately above. An effective establishment for the REAs would be approximately 120 people. Under the current scenario the staffing level would remain at 40.

#### **4.1. Resource Implications for financing environmental infrastructure investments**

##### The Investment Needs

As described above, a long term public sector investment programme is needed to address:

- Drinking water supply – reliable, sufficient and of suitable quality
- Wastewater collection – sewerage in all towns of greater than 2000 population equivalent
- Wastewater treatment – secondary treatment of collected wastewater for all towns
- Solid Waste – collection, recycling and disposal (landfill and incineration)
- Contaminated Land – remediation of the “hot spots”
- Technological improvement of state owned industries

A list of Priority Environmental Investment Projects has been prepared under the auspices of the Regional Environmental Reconstruction Programme (REReP).

##### Sources of Finance

The possible sources of finance for such a programme include:

- Central government funding from budget – Ministry of PWTT
- Local government funding from budget
- Local government funding from service revenues (e.g. water and solid waste charges)
- Revenue from fees, charges and fines in respect of environmental legislation
- International donor grants or donations
- International donor or bank loan finance

The current central government capital spending programme for infrastructure is administered through the MoPWTT. Spending in 2006 is a little over 10 billion Lek. Of this approximately 62% is being spent on roads and 55% on transport as a whole and 23% is being spent on drinking water. Slightly less than 4%, approximately 380 million Lek is being spent on “sanitation” (a combination of wastewater and solid waste management).

Local government funding has increased in recent years through the decentralisation process. The current percentage of local government revenue spent on sanitation is not known, but it is believed to be low.

The current tariffs for communal water services are controlled by the economic regulator for the water sector. In general the level of tariff set is intended to at least cover operational costs, but does not allow for significant revenue with which to renew or upgrade infrastructure.

Revenues from environmental fees and charges are currently directed into the central budget and are not directed specifically to environmental expenditure.

International donors have provided significant grants in the field of environment. Many of the projects funded by these grants have been designed to increase the capacity of the Government and the people of Albania to implement environmental management. A number of grants have also been provided to finance infrastructure development, notably through the European Union and the UN Global Environment Facility. However, the level of grant finance which will be available for infrastructure in the short to medium term is unclear and will be dependent on the level of both government financing and the ability to obtain loans from International Financial Institutions.

Substantial sums of loan finance have already been directed towards the construction of communal infrastructure. In 2005 the cumulative World Bank (IDA) credits to Albania were in the region of 770 million USD. In 2005 ongoing projects in the environment sector included:

- Municipal Water and Wastewater Project – 15 million USD
- Water Resource Management Project – 15 million USD

Further projects have now come on stream including:

- Integrated Coastal Zone Management And Clean Up Program – 20 million USD
- GEF - Integrated Water And Ecosystem Management Project – 20 million USD

- GEF - Shkodra Lake Integrated Ecosystem Management – 5 million USD

These projects are providing substantial support for the water sector. For example the GEF – Integrated Water and Ecosystem Management Project will ensure the completion of 3 constructed wetland wastewater treatment facilities. However, many more such projects are needed.

In order to make an estimate of the possible means by which the necessary investments might be made, a small number of hypothetical scenarios have been considered as summarised in the table below. The scenarios consider inputs from three sources Central government, Local Government and Donors. Donors in this instance can be taken to include both loan finance and grants. The cumulative spend by 2014 is shown and the year by which the cumulative investment will meet the 1 billion Euro target is also estimated.

Hypothetical Scenarios for Water/Wastewater Investments

#	Central Gov't	Local Gov't	Donor	By 2014	Finish
1	€ 3m per annum 6% p.a. increase	Nil	€ 20m per annum 3% pa increase	€ 238m	2032
2	€ 3m per annum 18%, 10%, 10% initial increase 6% p.a. increase	€ 1m per annum 6% p.a. increase	€ 20m per annum 3% pa increase	€ 255m	2031
3	€ 3m per annum 18%, 10%, 10% initial increase 10% p.a. increase after	€ 1m per annum 10% p.a. increase	€ 20m per annum 6% pa increase	€ 285m	2026
4	€7.5 m per annum 18%, 10%, 10% initial increase 5% p.a. increase after	€ 1.5 m per annum 10% p.a. increase	€ 20m per annum 6% pa increase	€ 360m	2024

In all these scenarios there is a very heavy reliance on donor funding. In the absence of donor funding the achievement of the investment target of 1 billion Euros within a 20 year timescale would, assuming the optimistic growth scenario for the expenditure ceiling continues (6% growth per annum), require approximately 2.4% of total public expenditure to be directed to sanitation investments for the next 20 years.

This would make the level of investment comparable with that for the road network which currently accounts for approximately 3.5% of the expenditure ceiling (5.5 billion Lek = € 45 million per annum).

It is considered highly unlikely that such levels of expenditure on sanitation investments will be acceptable in the short term. In simple terms, a realistic scenario needs to be found which entails a strong but affordable commitment on the part of the Government and a realistic level of support from external donors.

Of the hypothetical scenarios, 1 – 3 involve small increases in the commitment by the Government and continued increases in donor finance. These are probably unrealistic in that the donors are unlikely to continually increase their contributions without a comparable commitment on the part of the Government.

As such scenario 4 is considered more realistic. These would entail a commitment by the Government to increase the proportion of public revenue spent on sanitation investments from the current 0.24% to approximately 0.6% (it is of note that the current spending on drinking water supply is of the order of 1.5% of total expenditure), not taking account of debt repayments, which are potentially substantial.

Upon benefiting the “accession state” status, Albanian would have access to European Union pre-accession funding through the Instrument for Pre Accession (IPA). Upon accession it would be expected that a substantial amount of grant funding could be obtained through European Union support structures such as the Cohesion and Structural Funds. The level of grant funding is difficult to predict. However, it is assumed that grant funding for these investments can be maintained at the following levels:

Period		

2007 – 2010	5 million Euros	IPA, GEF, Bilateral donors
2011 – 2017	10 million Euros	IPA, GEF, Bilateral donors
2018 - 2027	15 million Euros	EU Funds, GEF, Bilateral donors

Even using these assumptions, a substantial amount of debt finance would be required, in the order of 400 million Euros over the period of the investment programme (2007 – 2027). Repayments of these debts would also impose a substantial burden on the Government budget which would require expenditure on debt service to rise over time to approximately 10 – 15 million Euros per annum and to continue at that level for 10 – 20 years after completion of the programme. Whether such levels of debt are sustainable is open to question.

#### The Mechanism for Implementation

At present the process of infrastructure funding for sanitation is administered through the MoPWTT. Whilst there is no doubt that MoPWTT should retain a central role in this process, the establishment of a broad based Environment Fund as proposed in the Government Programme is seen as advantageous.

Under the scenarios described above the Environment Fund would be responsible for administering the distribution of funds of approximately 25 million Euros in 2008, increasing over time. The precise size of the administrative structure needed for the work of the fund would depend on the extent to which the personnel of the fund were responsible for the tendering, contracting, supervision and auditing of the actual works. Even if these responsibilities were not vested with the Fund in the first instance, it would be sensible to establish a unit within the fund who would provide support and advice to local authorities and regional authorities in performing these tasks. On the basis of comparisons with similar funding organisations in other countries (such as the State Environment Fund of the Czech Republic), it is estimated that the establishment of the fund will require approximately 20 personnel. This will need to be increased over time to deal with the higher volume of funding. The costs of administering the funds are estimated at 20 million Lek per annum. The annual salary costs could be reduced by the secondment or transfer of staff from the relevant units of the MoPWTT. The initial set up costs are estimated to be of a similar magnitude. Moreover it is recommended that an external technical assistance project is established (such as was recently the case in Bosnia) to assist in the set up of the fund. Minor costs would also be associated with the establishment of a Management board, and with the auditing and publication of the Fund's accounts.

## 5. Accountability, monitoring and evaluation

A range of indicators have been identified for monitoring the implementation of the strategy. These include indicators of the state of the environment, of the provision of infrastructure, of investment effort and of the transposition of law.

### Environmental Indicators

Element	Indicator	Basic parameters
Air	compliance of air with air quality standards	Particulate matter, ozone, SO <sub>x</sub> , NO <sub>x</sub> ,
Water	Compliance with bathing water standards at coastal resorts	Bacteriological contamination
Water	Compliance with freshwater fish objectives in rivers	Oxygenation, Bio-toxicity
Biodiversity	Percentage of land area designated as protected	Land area
Biodiversity	Percentage of protected species which are at serious risk of extinction	Percentage at risk

Data for the reporting of these indicators is collected at present, but not to a sufficiently high standard. Measures to improve environmental monitoring as set out above will ensure the future availability of the necessary data.

### Environmental Infrastructure Performance Indicators

Element	Indicator
Wastewater collection	Population connected to central wastewater collection
Wastewater treatment	Percentage of wastewater subject to appropriate treatment
Waste	Collection and disposal of waste
Waste	Recycling of waste

The date for the calculation of such indicators are currently available, but are not reported on a regular basis.

### Financial indicators

Element	Indicator
Wastewater	Investment (at fixed prices) in wastewater infrastructure per annum
Waste management	Investment (at fixed prices) in solid waste infrastructure per annum
Contaminated Land	Investment (at fixed prices) in restoration of contaminated land per annum
Environmental management	Operational expenditure (at fixed prices) on environmental protection per annum

Data with which to report these indicators is currently held by the Government, but is not reported.

### Administrative Indicators

Element	Indicator
Transposition of Legislation	Degree of concordance between national legislation and European Community Legislation

The precise reporting of this indicator may be impractical in the short term as it requires the completion of tables of concordance for many items of legislation. Nevertheless its implementation will need to be planned since it is a requirement of the accession process and is used by the European Commission to judge progress in meeting the requirements for membership.

### **5.1. Coordination**

Many of the measures which are needed to implement this strategy will involve the work of a range of ministries and supporting institutions. For example, ensuring the conservation of biodiversity will require action primarily by the Ministry of Environment, Forestry and Water Administration, but will also need the support of the Ministry of Public Works, Transport and Telecommunications, the Ministry of Agriculture and their supporting institutions.

The management of urban waste is designated as a responsibility of the local authorities, but they will need to be supported by both the Regional Authorities and by central institutions including the Ministry of Environment, Forestry and Water Administration, the Ministry of Public Works, Transport and Telecommunications and the Environment Fund.

These are only two examples from many. There is clearly a need for inter-ministerial and inter-institutional cooperation in the implementation of this Strategy and in the achievement of its two key objectives, sustainable development and accession to the European Union. This coordination and cooperation needs to take place at both the working level and at the most senior level.

### **5.2. Environmental Units and Environmental Officers**

Although the MoEFWA is the lead Ministry with responsibility for environmental management, these responsibilities are shared between many Ministries. To ensure that the undertakings set out in this Strategy are fully implemented in a coordinated manner an Environmental Unit will be established in each Ministry. Each Environmental Unit will be headed by an Environmental Officer who shall report directly to the Minister.

The main purpose of each Environment Unit will be to support the implementation of the measures and tasks set out in this Strategy within their own Ministries through the provision of expert advice to specialist departments, exchange of information, monitoring and reporting. In this context each Environmental Officer will be responsible for providing support to the Minister in the Environment Commission. The Environment Units will be responsible for preparing progress reports on the implementation of this Strategy on a quarterly basis.

A network of Environment Units will be established to provide for the rapid and efficient exchange of information on the working level, including the transmission of data for public registers. Environmental Officers will meet at least once every six months with the MoEFWA to discuss and resolve issues arising from the implementation of this Strategy, including the implementation of the Strategic Environmental Assessment provisions.

The size of the unit will be proportionate to the level of responsibility held by the Ministry. It may be efficient in some instances for the Environmental Units to also take on responsibilities for Health and Safety issues within their Ministry. The staff of the Environmental Units will be provided with training and technical support by the Ministry of Environment, Forestry and Water Management.

### **5.3. Monitoring our progress**

This strategy is part of the environmental management system. As discussed earlier, that environmental management system embodies monitoring and progress reporting. Since the strategy is part of the system, it too needs monitoring.

#### ***Efficiency of implementation - performance monitoring***

A basic aim of the strategy is the implementation of a modern environmental management system. We need to understand whether this system is working. Have the right resources been provided and are the right procedures being applied? Information on the performance of the management system is essential to be able to appreciate its effectiveness or its needs for adjustment or reform. This calls for the regular monitoring of "productivity". This will cover the command and control aspects of the system: permit issue, permit updates, inspection frequencies, efficiency of fine collection, but will also need to cover other aspects of our administrative efficiency such as the length of time to respond to an information request from a member of the public, or the time taken to prepare reports and communications.

The indicators identified in above will be used to monitor the progress with the implementation of each measure.

#### ***Effectiveness of these actions - compliance monitoring***

Knowing whether or not the management system is performing efficiently will tell us about the performance of management institutions, but it will still not tell us about the effectiveness of the measures they are implementing. Impact on the environment or on indicators of pressures also needs to be monitored. For

example, if a congestion charge is introduced in central Tirana to reduce the peak levels of traffic, then it will be important to monitor the impact of the charge on the number of vehicles entering the city centre in order to ensure that the charge has been set at an appropriate level and that it has the desired effect.

#### ***Identification of new needs - responding to change***

Throughout the implementation of the strategy, assumptions will have to be made about trends in a number of factors including the development of population, industry or household consumption in order to determine the appropriate scale and nature of investment projects, for example. As with other assumptions, we cannot be completely certain that they are correct. Therefore we must remain alert to the emergence of new issues and new trends and be ready to analyze their impact on our strategy.

#### ***Environmental Officers***

Progress in the implementation of this Strategy will be monitored by each Environmental Officer and reported via the Ministers to the Environment Commission.

#### **5.4. Reporting our progress**

Information collected in the course of monitoring the implementation of the strategy will be of no use if it is not shared openly and reported.

#### ***Reporting and communication between government institutions***

This strategy requires the resolution of some complex issues which range across a number of sectors. In order to address these it is important for our institutions to communicate openly and to share the information which they have.

Practical and technical difficulties have prevented this from happening effectively in the past. However, as the systems for inter-institutional communication improve, particularly through the use of new technology, these difficulties should diminish.

The establishment of the Inter Ministerial Committee on Environment and the Task Group system should help to ensure that barriers to the exchange of information do not jeopardise the implementation of this strategy.

#### ***Communication with the public and other stakeholders***

The public, industry, commerce, NGOs, international agencies and donors are all necessary participants in this strategy. How can we hope for them to participate effectively if we do not tell them what is going on in a structured and effective way?

Regular bulletins on the implementation of the strategy and regular state of environment bulletins including an annual report will be provided to the Environmental Action Group.

### **Appendix 1: Investment Scenarios for sanitation infrastructure**

The following scenarios are presented in thousands of Euros.

A simple calculation indicates that in order to achieve a capital spend of 1 billion Euros on 20 years would require an annual spend of approximately 100 million Euros per year

#### **Scenario 1**

This is a basic scenario which envisages:

- A growth rate of 6% per annum of central government spending
- Nil contribution from local government
- A starting annual contribution from donors of 20 million Euros with an annual growth rate of 3%

<b>Contributions</b>	Rritija vjetore e kontributit (ne %)	2006	2007	2008	2009	2010	2011	2012	2013	2014
Central	6.0%	3,000.00	3,180.00	3,370.80	3,573.05	3,787.43	4,014.68	4,255.56	4,510.89	4,781.54
local		-	-	-	-	-	-	-	-	-
<b>Total of Public Sector</b>	<b>6.0%</b>	<b>3,000.00</b>	<b>3,180.00</b>	<b>3,370.80</b>	<b>3,573.05</b>	<b>3,787.43</b>	<b>4,014.68</b>	<b>4,255.56</b>	<b>4,510.89</b>	<b>4,781.54</b>
<b>Donor</b>	<b>3.0%</b>	<b>20,000.00</b>	<b>20,600.00</b>	<b>21,218.00</b>	<b>21,854.54</b>	<b>22,510.18</b>	<b>23,185.48</b>	<b>23,881.05</b>	<b>24,597.48</b>	<b>25,335.40</b>
Albania contribution		13%	13%	14%	14%	14%	15%	15%	15%	16%
<b>Total</b>		<b>23,000.00</b>	<b>23,780.00</b>	<b>24,588.80</b>	<b>25,427.59</b>	<b>26,297.61</b>	<b>27,200.16</b>	<b>28,136.61</b>	<b>29,108.37</b>	<b>30,116.95</b>
<b>Cummulative Expenditures</b>		<b>23,000.00</b>	<b>46,780.00</b>	<b>71,368.80</b>	<b>96,796.39</b>	<b>123,094.00</b>	<b>150,294.15</b>	<b>178,430.76</b>	<b>207,539.12</b>	<b>237,656.07</b>

Over the medium term this scenario realises an investment of nearly 238 million Euros. The long term target of 1 billion Euros investment is met in 2032

## Scenario 2

This scenario envisages:

- a growth rate of 6% per annum of central government spending except in years 200 – 2009 where increased spending rates are applied in line with the macroeconomic framework
- an initial contribution from local government of 1 million Euros per annum with a growth rate of 6%
- a starting annual contribution from donors of 20 million Euros with an annual growth rate of 3%

Contributions	Rritja vjetore e kontributit (ne %)	2006	2007	2008	2009	2010	2011	2012	2013	2014
Centra;	6%	3,000.00	3,540.00	3,894.00	4,283.40	4,540.400	4,812.83	5,101.60	5,407.69	5,732.16
Local	6%		1,000.00	1,100.00	1,210.00	1,282.60	1,359.56	1,441.13	1,527.60	1,619.25
<b>Total of Public Sector</b>		<b>3,000.00</b>	<b>4,540.00</b>	<b>4,994.00</b>	<b>5,493.00</b>	<b>5,823.00</b>	<b>6,172.38</b>	<b>6,542.73</b>	<b>6,935.29</b>	<b>7,351.41</b>
Increase			18%	10%	10%					
<b>Donor</b>	<b>3%</b>	<b>20,000.00</b>	<b>20,600.00</b>	<b>21,218.00</b>	<b>21,854.54</b>	<b>22,510.18</b>	<b>23,185.48</b>	<b>23,881.05</b>	<b>24,597.48</b>	<b>25,335.40</b>
AL Contribution			18%	19%	20%	21%	21%	22%	22%	22%
<b>Total</b>		<b>23,000.00</b>	<b>25,140.00</b>	<b>26,212.00</b>	<b>27,347.94</b>	<b>28,333.18</b>	<b>29,357.87</b>	<b>30,423.77</b>	<b>31,532.77</b>	<b>32,686.81</b>
<b>Cumulative Expenditures</b>		<b>23,000.00</b>	<b>48,140.00</b>	<b>74,352.00</b>	<b>101,699.94</b>	<b>130,033.12</b>	<b>159,390.99</b>	<b>189,814.76</b>	<b>221,347.53</b>	<b>254,034.34</b>

Over the medium term this scenario realises an investment of nearly 255 million Euros. The long term target of 1 billion Euros investment is met in 2031

### Scenario 3

This scenario envisages:

- a growth rate of 10% per annum of central government spending except in years 2007 – 2009 where increased spending rates are applied in line with the macroeconomic framework
- an initial contribution from local government of 1 million Euros per annum with a growth rate of 10%
- a starting annual contribution from donors of 20 million Euros with an annual growth rate of 6%

Contributions	Rritja vjetore e kontributit (ne %)	2006	2007	2008	2009	2010	2011	2012	2013	2014
Central	10%	3,000.00	3,540.00	3,894.00	4,283.40	4,540.400	4,812.83	5,101.60	5,407.69	5,732.16
Local	10%		1,000.00	1,100.00	1,210.00	1,282.60	1,359.56	1,441.13	1,527.60	1,619.25
<b>Total of Public Sector</b>		<b>3,000.00</b>	<b>4,540.00</b>	<b>4,994.00</b>	<b>5,493.00</b>	<b>5,823.00</b>	<b>6,172.38</b>	<b>6,542.73</b>	<b>6,935.29</b>	<b>7,351.41</b>
Inrease			18%	10%	10%					
<b>Donor</b>	<b>6%</b>	<b>20,000.00</b>	<b>21,200.00</b>	<b>22,472.00</b>	<b>23,820.32</b>	<b>25,249.54</b>	<b>26,764.51</b>	<b>28,370.38</b>	<b>30,072.61</b>	<b>31,876.96</b>
AL Contribution			18%	18%	19%	19%	20%	20%	21%	22%
<b>Total</b>		<b>23,000.00</b>	<b>25,740.00</b>	<b>27,466.00</b>	<b>29,313.72</b>	<b>31,292.28</b>	<b>33,411.53</b>	<b>35,682.10</b>	<b>38,115.49</b>	<b>40,724.14</b>
<b>Cummulative Expenditures</b>		<b>23,000.00</b>	<b>48,740.00</b>	<b>76,206.00</b>	<b>105,519.72</b>	<b>136,812.00</b>	<b>170,223.52</b>	<b>205,905.62</b>	<b>244,021.11</b>	<b>284,745.25</b>

Over the medium term this scenario realises an investment of nearly 285 million Euros. The long term target of 1 billion Euros investment is met in 2026

#### **Scenario 4**

This scenario envisages:

- a very large initial increase (254%) in central government spending to a level of 0.5% of total government expenditure followed by increases in 2008 – 2009 in line with the macroeconomic framework and 5% thereafter
- a very large initial increase in local government spending to a level of 0.1% of total government expenditure followed by increases in 2007 – 2009 in line with the macroeconomic framework and 10% thereafter
- a starting annual contribution from donors of 20 million Euros with an annual growth rate of 6%

This highly optimistic scenario results in achievement of an expenditure in the region of 360 million Euros by 2014 and achievement of the 1 billion Euro target by 2024

<b>Contributions</b>	Rritja vjetore e kontributit (ne %)	2006	2007	2008	2009	2010	2011	2012	2013	2014
Central	5.0%	3,000.00	7,623.61	8,385.97	9,224.56	9,685.79	9,685.79	9,685.79	9,685.79	9,685.79
Local	10.0%	-	1,524.72	1,677.19	1,844.91	2,029.40	2,232.34	2,455.58	2,701.14	2,971.25
<b>Total of Public Sector</b>		<b>3,000.00</b>	<b>9,148.33</b>	<b>10,063.16</b>	<b>11,069.48</b>	<b>11,715.20</b>	<b>11,918.14</b>	<b>12,141.37</b>	<b>12,386.93</b>	<b>12,657.04</b>
Increase			254%	9%	8.7%	8.2%	8.1%	8%	7.8%	
<b>Donor</b>	<b>6%</b>	<b>20,000.00</b>	<b>25,000.00</b>	<b>26,500.00</b>	<b>28,090.00</b>	<b>29,775.40</b>	<b>31,561.92</b>	<b>33,455.64</b>	<b>35,462.98</b>	<b>37,590.76</b>
AL Contribution			27%	28%	28%	28%	27%	27%	26%	25%
<b>Total</b>		<b>23,000.00</b>	<b>34,148.33</b>	<b>36,563.16</b>	<b>39,159.48</b>	<b>41,490.60</b>	<b>43,480.06</b>	<b>45,597.01</b>	<b>47,849.91</b>	<b>50,247.80</b>
<b>Cummulative Expenditures</b>		<b>23,000.00</b>	<b>57,148.33</b>	<b>93,711.49</b>	<b>132,870.97</b>	<b>174,361.56</b>	<b>217,841.62</b>	<b>263,438.63</b>	<b>311,288.54</b>	<b>361,536.34</b>