



Commission of European Communities, for and on behalf of the Government of Albania,

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Albanian National Waste Strategy

Component D: Environmental Management Plans

Activity: National Waste Management Plan



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Implementation of the National Plan for Approximation of Environmental Legislation in Albania

Environmental Management Plans

Albanian National Waste Strategy

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List of Abbreviations

ALL	Albanian LEK
ARA	Albanian Recyclers Association
BPEO	Best Practicable Environmental Option
CDW	Construction and Demolition Waste
CoM	Council of Ministers
ECJ	European Court of Justice
EFA	Environment and Forestry Agency
EIA	Environmental Impact Assessment
EoLV	End of life vehicles
HW	Hazardous Waste
IPS	Integrated Planning System
INPAEL	EU CARDS 2006 Project for Implementation of the National Plan for Approximation of Environmental Legislation
METE	Ministry of Economy, Trade and Energy
MoEFWA	Ministry of Environment, Forestry and Water Administration
MoH	Ministry of Health
MoPWTT	Ministry of Public Works Transport and Telecommunications
MTBP	Medium-Term Budget Programme
NPAL	National Plan for Approximation of Legislation
NSDI	National Strategy for Development and Integration
NSSED	National Strategy for Socio-Economic Development
PBB	Polybrominated biphenyls
PBDE	Polybrominated diphenyl ethers
PCBs	Polychlorinated Biphenyls
PCTs	Polychlorinated Terphenyls
PERL	Planning, Education, Resourcing and Legislation
POPs	Persistent Organic Pollutants
PVC	Polyvinyl Chloride
REA	Regional Environment Agencies
RoA	Republic of Albania
SAA	Stabilisation and Association Agreement

1. WASTE MANAGEMENT IN ALBANIA

Waste management in Albania is at a low level. Systems for the collection of urban solid waste are provided in most cities and towns, but not in rural areas. Very little recycling of waste is undertaken. Wastes are mainly disposed at municipal dump sites. With few exceptions (Sharra and Bushat landfills) there are no properly engineered landfill sites in the country. Two other landfills are planned to be built in the short-to medium term: one in Korca/Maliq (KfW support) and another in Saranda/Bajkaj (World Bank support). 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 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). Hazardous waste infrastructures are extremely poor with most of that infrastructures being provided by the private sector in terms of collection and recycling capacities. The provision of these services and the associated infrastructure is extremely nascent and is largely dependent on the availability of recycling materials of an appropriate quality. In most cases this recycling industry is dependent on raw recyclable materials from outside Albania.

There is a prevalent and overarching policy of dig and dump. Economic instruments for waste management are scarce and insignificant in value.

The problems of waste generation and management are many and various. The greatest amounts of waste generated (by weight) tend to be inert substances, construction waste in particular, but the greatest risks are associated with smaller volumes of (mainly industrial) hazardous wastes. Municipal wastes need extensive and expensive collection, transport and disposal arrangements. Special conditions should apply to particular categories, such as clinical wastes.

The waste sector presents some of the most significant challenges facing Albania.

The latest State of the Environment Report summarises the issues:

- Systems for collection and removal of waste are inadequate and inefficient;
- Informed decisions about collection and disposal choices cannot be made in the absence of reliable information;
- There is no tradition of proper waste treatment and disposal;
- Financial and technical resources are insufficient; and
- Public awareness of the damage caused by poor waste management is lacking.

1.1 Legislative Overview

1.1.1 Current Legal Framework

Most of the progress in the waste management field has been made in the area of legislation. During the period 2002-2008 waste management legislation in Albania has been improved with new Laws, decisions and regulations/guidelines reflecting the EC directives/decisions and the Basel Convention requirements. The main principles of the waste management are laid down in the:

- Law no.8934, dt. 05.09.2002 "On environment protection", amended by Law no.9890, date 20.3.2008 and Law no.9983, date 8.9.2008;
- Law no.9010, dt.13.02.2003 "On the environmental administration of solid waste", and

- Law nr.9537, dt.18.5.2006 “On hazardous waste administration”.

A number of other acts deal with waste either directly or indirectly, including:

- Decision nr. 803, dated 04.12.2003 “On the approval of rules and procedures for the import of waste for recycling and treatment”
- Decision no. 99, dt.18.02.2005 “On the approval of the Albanian catalogue for classification of waste”
- Regulation nr.1, dated 30/3/ 2007 “On the treatment of construction and demolition waste from creation and transportation to disposal”
- Regulation no.6, dated 30.11.2007 “On the administration of hospital waste”
- Guideline nr.6, dated 27.11.2007 “on the approval of the rules, content and deadlines for the drafting of plans for solid waste administration”

The existing Albanian laws only partially transpose the requirements of the EU waste sector legislation. Many of the key concepts are lacking as are the detailed procedures etc. for waste management.

Other Albanian acts not specifically transposing European waste legislation include:

- Law No.8094, dt.21.03.1996 “On the public removal of waste”
- Law No.9663, dt.18.12.2006 “On concessions”. Among other issues, the Law covers public services and waste management, too, implying construction of waste treatment facilities.
- Law No.8652, dt.31.07.2000 “On the organization and functioning of the local government”.

Following the monitoring of transposition, as made in the projects “Progress monitoring for potential Candidate Countries and the Former Yugoslav Republic of Macedonia 2006-2007 and 2007-2008” on behalf of the EC, it was estimated that the Directive 91/689/EEC on hazardous waste has been transposed by 62%, Directive 75/442/EEC on waste has been transposed by 46% (into the Hazardous Waste Law), the same Directive 75/442/EEC on waste was estimated as transposed by only 15% into the Law 9010, dt.13.02.2003 “On the environmental treatment of solid waste”. Decision 2000/532/EC (the waste catalogue) has been fully transposed.

The transposition of new directives and further deepening of the transposition already made, has been planned for the short, medium and long term. This has been a continuous recommendation of different EC progress reports, EU Partnership Document, Joint Committee Meetings, etc.

An integral draft Law on Waste Management transposing the new Waste Framework Directive 2008/98/EC (including both hazardous and non-hazardous waste) is under preparation (to be completed by first half of 2010) in the frame of the CARDS 2006 (INPAEL) project. This new Law will repeal the various pieces of waste legislation referred to above, so that an integrated and coherent approach to waste management may be established. The new Law would then establish the legal basis for secondary legislation to transpose the various waste management and waste stream directives.

Two draft Decisions will complete the new package of waste legislation being prepared by the INPAEL project: a draft Decision on landfill of waste (both hazardous and non-hazardous) and a draft Decision on Incineration (by first half of 2010). In addition, in the short-term, Decisions are being prepared by an IFC supported project which transpose the Batteries and Accumulators Directive, the Packaging and Packaging Waste Directive and the WEEE Directive.

As already mentioned, a number of waste related acts have been approved. Between them Law 9010 on solid (non-hazardous) waste and Law 9537 on hazardous waste are the most important. It is anticipated that the new draft Law on Waste Management will result in the repeal of these two laws.

1.1.2 Current Implementation Status

As already explained above, the major concern in the waste management area in Albania is not the lack of legislation (although it needs to be improved and further aligned), but lack of management

planning, of institutional/ technical/ human capacities, of financial resources and infrastructure/ investments; lack of experience/tradition with up-to-date management of such sector at all; lack of/poor economic instruments used for waste management; poor cooperation between the central and local level on waste issues; poor cooperation between the public and private organizations on waste management issues; weak enforcement structures (inspectorates); lack of awareness on economic value of waste as a resource; lack of waste monitoring, indicators and statistics, as well as of the necessary networks to collect and process them; etc.

A brief analysis of the current implementation of specific relevant issues of the New Waste Framework Directive in Albania:

A waste hierarchy

Has been accepted by the current legislation, but not yet put into practise;

Extended producer responsibility

No steps taken so far to include this concept into the current legislation, therefore no practical steps have been taken either;

Waste recovery, reuse and recycling

The Albanian Recyclers Association (ARA) has been established recently. About 60 private companies are in the market, dealing with waste recycling. Not all of them have got an environmental permit from the MoEFWA. The companies have been established for the recycling of the following waste groups:

- paper recycling: 3 companies
- plastic: 10 companies
- textile: 1 companies
- aluminium: 4 companies
- steel: 15 companies
- metal scrap: 21 companies
- inert waste (demolition bricks): 1 company
- wood: 1 company
- waste oil: 1 company
- used tyres: 1 company

The system of waste collection for the recycling business is informally organized. It is mainly dominated (92%) by Roma people, who are registered as unemployed. Some 12,000 individual collectors for metal scrap have been counted. They are basically un-equipped, un-trained and have no formal agreements with their scrap buyers.

The following barriers to waste recycling have been identified: high energy price and transport costs; low financial power of the collectors, both individuals and companies; lack of segregation at source; general lack of awareness at the public, administration and business levels; lack of appropriate practical arrangements and stimuli to promote re-use, recycling and recovering; lack of training on waste segregation/ re-use/recycling/recovering at the different levels of value chain; lack of expertise on the side of the recycling business itself; and difficulties to access financial sources to develop such businesses.

Waste disposal

Albania has quite a number of dump sites inherited from the past, which may have already exceeded their carrying capacities. Some have been established recently. There are also some new illegal ones. Most of them are not safe. None of them comply with the requirements of the Landfill Directive. The Ministry of Public Works Transport and Telecommunications (MoPWTT) has plans for feasibility studies and works for the closure of a number of other dump sites, as well as for the construction of some new ones.

Waste management

Waste collection fees, known as the “cleaning tariff”, are set by the local government, following the Law on Local Taxes. These fees are actually different for each municipality. They are basically very low, with few exceptions. These fees cover only the cleaning of cities, collection, transport and disposal of urban waste at the respective dump sites. They don’t cover any recovery, supervision, or after-care of disposal sites.

There is no integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households. They do not take into account BAT. No co-operation with other Member States has taken place so far, with regard to waste management.

Hazardous waste

So far, although prohibited by law, hazardous wastes are disposed at the same dump sites as non-hazardous ones. Correct packing and labelling is not yet the practise, although the legislation foresees it.

Waste oils

There is one private company in Durres that carries out waste oils collection for recycling purposes.

Bio-waste

This waste stream goes at the dump site together with other wastes.

Permits and registration

Environmental permits have been issued by MoEFWA for a number of dump sites and a landfill in Shkoder. No standard format for any kind of register is being maintained so far.

Waste management plans

Legislation on Waste Management Plans exists, but only few such plans have been prepared so far. No waste prevention programmes have been established yet.

1.2 Transposition of the EU Waste Management Sector Legislation

The Albanian Government is committed to a process of full EU membership and in this regard the Ministry of Environment, Forestry and Water Administration has been working towards transposition of key EU legislative instruments into Albanian legislative instruments. This programme of transposition has been undertaken through funding from the EU and involves the current INPAEL project.

This work is likely to continue well into 2012 as the current status of Directive transposition is only partly completed. The legislation pertinent to this policy and to the new strategy and plan is as follows:

- o Directive 2008/98/EC on Waste (the Waste Framework Directive);
- o Directive 99/31/EC on Landfill of Waste;
- o Directive 75/439/EEC on Disposal of Waste Oils;
- o Directive 2006/66/EC on Batteries and Accumulators;
- o Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE);
- o Directive 2000/76/EC on Waste Incineration;
- o Directive 2006/21/EC on the Management of Wastes from the Extractive Industry;
- o Directive 2000/53/EC on End of Life Vehicles;
- o Directive 96/59/EC on Disposal of PCB/PCT;
- o Directive 94/62/EC on Packaging and Packaging Waste;
- o Directive 86/278/EEC on Sewage Sludge.

The above is only a list of specific legislation pertaining to waste. There is a raft of environmental legislation in addition waiting to be or currently being transposed into Albanian Law. This process is time consuming and is currently ongoing.

1.2.1 Requirements of the Waste Framework Directive

The overarching legislation from the European Union dealing with waste is the Waste Framework Directive. Directive 2008/98/EC on waste was adopted in November 2008 foresees a new approach to waste management based on prevention of adverse impacts of waste generation and management to human health and the environment, and aiming to limit the production of waste, as well as encouraging the use of waste as a resource by recycling and recovery.

Waste is defined as any substance or object which the holder discards or intends or is required to discard. A new concept has been introduced by this Directive under the “end of waste status”: that a substance or object may be regarded as not being waste but as being a by-product only when the following conditions are met:

- further use of the substance or object is certain;
- the substance or object can be used directly without any further processing other than normal industrial practice;
- the substance or object is produced as an integral part of a production process; and
- further use is lawful, i.e. the substance or object fulfils all relevant product, environmental and health protection requirements for the specific use and will not lead to overall adverse environmental or human health impacts.

Certain wastes can stop being ‘waste’ when they have undergone recovery operation (which includes recycling) and which complies with specified criteria. Such end-of-waste criteria should be considered for aggregates, paper, glass, metal, tyres and textiles. Where such criteria are not set at Community level, they may be set by Member States.

Any criteria must meet the following conditions:

- the substance or object is commonly used for specific purposes;
- a market or demand exists for such a substance or object;
- the substance or object fulfils any technical requirements for the specific purposes and meets legislation and standards applicable to products; and
- the use of the substance or object will not lead to overall adverse environmental or human health impacts.

The Directive creates a waste hierarchy and poses complex questions in the current transposition process. It aims to improve waste prevention by introducing waste prevention programmes as a policy instrument for the Member States. Recycling and recovery of waste are being promoted by targets, separate collection and energy efficiency criteria. The producer responsibility principle has been extended and Member States will have to find ways to transpose this principle, taking into account their national administrative structures and the role played by municipalities.

A waste management hierarchy is established by the Directive as a priority order in waste prevention and management:

1. Prevention
2. Preparing for re-use
3. Recycling
4. Other recovery, e.g. energy recovery
5. Disposal.

The list of waste (Waste Catalogue Decision 2000/532/EC, as amended) includes hazardous wastes, and takes account of the origin and composition of the waste. It will also take account of any concentration limit values, where necessary. The List of Waste is binding as regards determination whether the waste is Hazardous Waste. Hazardous Waste must not be mixed or diluted to re-classify it as non-hazardous waste.

Extended producer responsibility

Legislative or non-legislative measures may be taken to ensure that persons who professionally develop, manufacture, process, treats, sells, or imports products (producer of the product) have

extended producer responsibility. These measures may include acceptance of the returned products and any waste that remains after these products have been used, waste management and financial responsibility. It may also include public information on re-use and re-cyclability.

Waste recovery

Recovery is defined as any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.

Measures must be taken to ensure waste recovery operations. If necessary, and if technically, environmentally and economically practicable, waste should be collected separately and not mixed with other waste or other material with different properties.

Annex II of the Waste Framework Directive sets out a non-exhaustive list of recovery operations.

Reuse and recycling

Re-use is defined as any operation by which products or components that are not waste are used again for the same purpose for which they were conceived. Recycling is defined as any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations.

The re-use of products should be encouraged. High quality re-cycling is to be promoted. Separate collections of waste should be set up where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors. In order all the steps of the above-mentioned hierarchy can happen, a primary condition is the waste separate collection at source. The following recycling targets must be met:

1. by 2015 separate collections must be set up for at least; paper, metal, plastic and glass;
2. by 2020 the preparing for re-use and the recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households, shall be increased to a minimum of overall 50% by weight;
3. by 2020 the preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the European Waste Catalogue (EWC) shall be increased to a minimum of 70% by weight.

Waste disposal

The hierarchy of waste management makes it clear that disposal comes last, only when previous steps of the hierarchy have not been feasible. Disposal is the less desirable stage of the waste management hierarchy, because through it material values get lost. Where waste recovery has not taken place, then waste must undergo safe disposal operations. This waste disposal must be carried out without endangering human health and without harming the environment. Disposal is defined as any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy. Annex I of the Waste Framework Directive sets out a non-exhaustive list of disposal operations.

Waste management

The costs of waste management must be borne by the original waste producer or by the current or previous waste holder – in accordance with the polluter pays principle. Waste management means the collection, transport, recovery and disposal of waste, including the supervision of such operations and the after-care of disposal sites, and including actions taken as a dealer or broker.

Member States must establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households. This should take into account best available techniques (BAT). These measures may be taken in co-operation with other Member States where this is necessary or advisable.

This network must enable the EU as a whole to become self-sufficient in waste disposal and in the recovery of mixed municipal waste; and to enable each Member State to move towards that aim individually.

Waste must be disposed of or recovered in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health.

Hazardous waste

Hazardous waste is defined by reference to waste that displays one or more hazardous waste properties which are listed in Annex III of the Directive. Subject to certain exemptions, hazardous waste (HW) must not be mixed either with other categories of HW or with other waste, substances or materials. This ban on mixing also includes the dilution of hazardous substances.

For the purposes of collection, transport and temporary storage of HW, the HW must be packaged and labelled in accordance with international and Community standards. It should also be accompanied by the appropriate documentation.

Permits and registration

All waste treatment establishments or undertakings must obtain a permit from the Competent Authority. This permit, at a minimum, must specify:

- the types and quantities of waste that may be treated;
- for each type of operation permitted, the technical and any other requirements relevant to the site concerned;
- the safety and precautionary measures to be taken;
- the method to be used for each type of operation;
- such monitoring and control operations as may be necessary;
- such closure and after-care provisions as may be necessary.

Subject to certain conditions, Member States may exempt from the permit requirements establishments or undertakings that dispose of their own non-HW at the place of production or for recovery of waste.

Waste management plans

Competent Authorities in the Member States must establish one or more waste management plans. This plan or plans must cover the whole of the Member State and set out an analysis of the current waste management situation, and an evaluation for how the plan will support implementation of the Directive. The plans must conform with the waste planning requirements for WEEE and also with the strategy for the reduction of biodegradable waste going to landfill.

The waste management plans shall include, at a minimum:

- an analysis of the current waste management situation in Albania
- an analysis of the measures to be taken to improve environmentally sound preparing for re-use, recycling, recovery and disposal of waste;
- an evaluation of how the Plan will support the implementation of the waste management legislation;
- the type, quantity and source of waste generated within Albania, the waste likely to be shipped from or to Albania, and an evaluation of the development of waste streams in the future;
- existing waste collection schemes and major disposal and recovery installations, including any special arrangements for waste oils, hazardous waste or waste streams addressed by specific legislation;
- an assessment of the need for new collection schemes, the closure of existing waste installations, additional waste installation infrastructure required, and, if necessary, the investments related thereto;
- sufficient information on the location criteria for site identification and on the capacity of future disposal or major recovery installations, if necessary;

- general waste management policies, including planned waste management technologies and methods, or policies for waste posing specific management problems.

Waste prevention programmes must also be established, which may be integrated into the waste management plans. These plans and programmes must be evaluated at least every six years, and revised if appropriate.

Relevant stakeholders, authorities and the public must have the right to participate in the elaboration of these plans and programmes; which must be made publicly available on a relevant website. The implementation of the waste hierarchy is also crucial to the long term sustainability of Albania's waste management. This would ask first the improvement of our legal framework and especially through the full transposition of solid waste directives.

In practice this will require a far higher level of organisation including provisions for product return (such as is required under the Waste Electrical and Electronic Equipment Directive – 2002/96/EC), segregation of waste at source and the acceptance of product standards for materials derived from re-processed waste (such as the use of crushed and graded demolition waste for road sub-base). The success of such systems is largely dependent of the behaviour of individuals and companies, which in turn is influenced by their understanding of the damage done by poor waste management and of the opportunities which exist to change waste into a resource rather than a nuisance. The foundations for dealing with these matters will be laid in the short term, whilst their full application will be undertaken in the medium term through a National Waste Plan.

The Directive must be implemented in member states by December 2010.

1.2.2 Requirements of EU Waste Streams Legislation

Biodegradable Waste

The main environmental threat from bio-waste is the production of methane in landfills, which accounted for some 3% of total greenhouse gas emissions in the EU-15 in 1995. The Landfill Directive 1999/31/EC obliges Member States to reduce the amount of biodegradable waste that they landfill to 35% of 1995 levels by 2016, which will significantly reduce the problem. The Commission's priority is to ensure that Member States comply with this legal requirement fully and on time.

The Member States have a number of choices that they can take in terms of alternative treatment for this biodegradable waste, taking into account local conditions such as climatic conditions to the composition of the collected bio-waste. These choices must be taken in a transparent manner - this is why the Waste Framework Directive requires Member States to include these choices in their national waste management plans. This Directive also requires Member States to assess to what extent their choice of options for the management of bio-waste contributes to the environmental objectives defined in the Directive. To support the Member States in this legal obligation, the Commission will provide criteria, in the form of a guidance document, to help with identifying the environmentally best option for the management of bio-waste in the various countries and regions.

One potential option is composting. Actions that need to be taken at the EU level to promote composting include the definition of quality standards for compost so that markets for compost can develop. The Commission started working on the standards in 2007, so that they are available when the Waste Framework Directive enters into force following adoption by the Council and the European Parliament. This will play an important role in helping the Member States to overcome one of the biggest obstacles to composting policies, the lack of user confidence and market acceptance.

It is also necessary to develop high environmental standards that can apply to facilities in which biological treatment takes place. This will be achieved through the upcoming review of the Directive on Integrated Pollution Prevention and Control (2008/1/EC) under which national authorities issue permits for major industrial and agricultural installations based on the concept of Best Available Techniques (BAT).

Lastly, the Commission Thematic Strategy on Soil will address the wider subject of carbon depletion in soil and how to avoid and remedy it. This will take into account the potential of using compost as a means to increase the carbon content of soil.

It will take the Member States some time to implement environmentally sound management of bio-waste and the Commission will revisit the issue in the review of the Thematic Strategy on waste prevention and recycling in 2010. This review will assess the progress of the Member States and the need for additional measures, including additional legislative measures on top of the legislative measures already proposed in the Strategy package.

New Developments

Following the provision of the Thematic Strategy on Prevention and Recycling of Waste (COM 2005 (666) final) concerning need to address compost standards at EU level and responding to the call made in Article 22 of the Waste Framework Directive (2008/98/EC) requesting the Commission to carry out an assessment on the management of bio-waste with a view to submitting a proposal if appropriate the Commission started preparatory work on potential legislative proposal on bio-waste.

Construction and Demolition Waste

Construction and demolition waste has been identified as a priority waste stream by the European Union¹. There is a high potential for recycling and re-use of CDW, since some of its components have a high resource value. In particular, there is a re-use market for aggregates derived from CDW waste in roads, drainage and other construction projects. In addition, technology for the separation and recovery of construction and demolition waste is well established, readily accessible and in general inexpensive.

However, the level of recycling and re-use of CDW varies greatly (between less than 10% and over 90%) across the Union. In some Member States, this waste stream is to a large extent disposed of, using up valuable space in landfills. More information about the current situation in the EU can be found on the website of the European Topic Centre on Sustainable Consumption and Production.

In addition, if not separated at source, CDW can contain small amounts of hazardous wastes, the mixture of which can pose particular risks to the environment and can hamper recycling.

One of the objectives of the Waste Framework Directive (2008/98/EC) is to provide a framework for moving towards a European recycling society with a high level of resource efficiency. In particular, Article 11.2 stipulates that "Member States shall take the necessary measures designed to achieve that by 2020 a minimum of 70% (by weight) of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the List of Wastes shall be prepared for re-use, recycled or undergo other material recovery (including backfilling operations using waste to substitute other materials).

End of Life Vehicles

End of life vehicles (EoLV) are another matter for consideration. These vehicles contain significant quantities of highly polluting substances including oil, solvents and other petrochemical products. Although facilities are in operation throughout Albania for the dismantling of such vehicles, most of

¹ Construction and demolition waste (CDW) is one of the heaviest and most voluminous waste streams generated in the EU. It accounts for approximately 25% - 30% of all waste generated in the EU and consists of numerous materials, including concrete, bricks, gypsum, wood, glass, metals, plastic, solvents, asbestos and excavated soil, many of which can be recycled.

CDW arises from activities such as the construction of buildings and civil infrastructure, total or partial demolition of buildings and civil infrastructure, road planning and maintenance. Different definitions are applied throughout the EU, which makes cross-country comparisons cumbersome. In some countries even materials from land levelling are regarded as construction and demolition waste.

these facilities are not provided with adequate pollution prevention measures or safe working practices.

The EoLV Directive (2000/53/EC) aims to reduce the amount of waste from vehicles (cars and vans) when they are finally scrapped. In particular, it includes tightened environmental standards for vehicle treatment sites, requires that last owners must be able to dispose of their vehicles free of charge from 2007 (and requires producers to pay all or a significant part of the free take-back from this date), sets rising reuse, recycling and recovery targets and restricts the use of hazardous substances in both new vehicles and replacement vehicle parts.

Packaging and Packaging Waste

The Packaging & Packaging Waste Directive (94/62/EC) - 'The Packaging Directive' - is concerned with minimising the creation of packaging waste material and promotes energy recovery, re-use and recycling of packaging. The Directive has both single market and environmental goals. It sets the 'Essential Requirements' of packaging (which should be considered in its design and manufacture) and heavy metal limits for packaging. The Packaging Directive covers all packaging placed on the market within the EU, and all packaging waste - whether disposed of at industrial or commercial sites, or from private homes.

The aims of the Directive are to:

- harmonise national measures so as to prevent or reduce the impacts of packaging on the environment of all Member States and Third Countries and to remove obstacles to trade and distortion and restriction of competition; and
- prevent the production of packaging waste, and reduce the amount of waste for final disposal through packaging re-use, recycling and other forms of recovery.

The recovery and recycling targets set by the original Directive for packaging waste were revised in 2004 by an amending Directive 2004/12/EC, increasing the recycling targets to be met by Member States by 2008 to:

1. 60% overall recovery of packaging waste; and
2. 55% minimum and 80% maximum recycling of packaging waste.

The amending Directive set material specific recycling targets by weight, as follows: glass (60%), paper and board (60%), metals (50%), plastics (22.5%), and wood.

Waste Oils

The Waste Oil Directive 75/439/EEC, as last amended by the Waste Framework Directive 2000/76/EC (and will be subsequently repealed by that Directive), is designed to create a harmonised system for the collection, storage, recovery and disposal of waste oils, such as lubricant oils² for vehicles, turbines, gearboxes and engines, hydraulic oils, etc. The Directive also aims to protect the environment against the harmful effects of illegal dumping and of treatment operations.

Thus, it is crucial to collect as much as possible this very valuable resource, in order to avoid the contamination of the environment and to be able to profit from the very high recovery potential of this waste stream. The average collection rate in the EU15 is around 81%. It can be further improved. For that, industries, consumers, and garages have to participate, by not dumping these precious liquids but by handing them to authorised collectors that will ensure their adequate recovery.

² Lubricant oils are a common element in our daily lives, as they are needed to allow many engines and mechanisms to function. The EU consumed in 2003 roughly 4.4 million tonnes a year. However, through their use, they lose their properties, become contaminated and at some point they cease to be fit for the use they were originally intended. These used oils are then replaced by fresh lubricating oils and we are left with some waste oils. Some 50% of what is purchased will become waste oils (the rest is lost during use, or through leakages, etc.) Waste oils are hazardous waste as they display some hazardous properties. Waste oils that are found in rivers, lakes and streams threaten aquatic life. Indeed, a litre of waste oil can contaminate a million litres of water. Furthermore, severe soil contamination can result from waste oils being left on the ground.

Under the Waste Framework Directive, waste oils must be collected separately where this is technically possible, and waste oils must be treated. Waste oils should not be mixed with other waste oils or with other kinds of waste.

Waste Electrical and Electronic Equipment

EU legislation restricting the use of hazardous substances in electrical and electric equipment (Directive 2002/95/EC) and promoting the collection and recycling of such equipment (Directive 2002/96/EC) has been in force since February 2003. The legislation provides for the creation of collection schemes where consumers return their used e-waste free of charge. The objective of these schemes is to increase the recycling and/or re-use of such products. It also requires heavy metals such as lead, mercury, cadmium, and chromium and flame retardants such as polybrominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE) to be substituted by safer alternatives.

Despite such rules on collection and recycling only one third of electrical and electronic waste in the European Union is reported as appropriately treated and the other two thirds are going to landfills and potentially to sub-standard treatment sites in or outside the European Union. The collection target of 4 kg per person per year does not properly reflect the situation in individual Member States. Illegal trade of electrical and electronic waste to non-EU countries continues to be widespread.

Inadequately treated products pose major environmental and health risks. In December 2008 the European Commission proposed to revise the directives on electrical and electronic equipment in order to tackle the fast increasing waste stream of such products. The aim is to increase the amount of e-waste that is appropriately treated and reduce the number that go to final disposal. The proposals also aim reduce administrative burden.

The Commission proposes to set mandatory collection targets equal to 65% of the average weight of electrical and electronic equipment placed on the market over the two previous years in each Member State. The recycling and recovery targets of such equipment now cover the re-use of whole appliances and weight-base targets will increase by 5%. Targets will also be set for the recovery of medical devices.

Member States where the consumption of electrical and electronic equipment is widespread would have more ambitious targets under the new directive while others with smaller markets will have less ambitious targets.

Batteries and Accumulators

Community legislation on batteries (Directive 2006/66/EC) applies to all batteries and accumulators(exception: those used in equipment connected with the protection of Member States' essential security interest and those in equipment designed to be sent to space).

The Directive aims at minimising the negative impacts of batteries and accumulators on the environment and also harmonising requirements for the smooth functioning of the internal market. To achieve these objectives, the Directive introduces measures to prohibit the marketing of some batteries containing hazardous substances. It contains measures for establishing schemes aiming at high level of collection and recycling of batteries with quantified collection and recycling targets. The Directive sets out minimum rules for producer responsibility and provisions with regard to labelling of batteries and their removability from equipment.

Animal By-Products

Animal by-products are animal carcasses, parts of carcasses or products of animal origin that are not intended for human consumption. This includes catering waste, used cooking oil, former foodstuffs, butcher and slaughterhouse waste, blood, feathers, wool, hides and skins, fallen stock, pet animals, zoo and circus animals, hunt trophies, manure, ova, embryos and semen.

The existing EU legislation on animal by-products (Regulation EC/1774/2002, as amended) will be repealed and replaced by a new Regulation EC/1069/2009 as from 4 March 2011. During this time the detailed rules for the implementation of the new Regulation will be agreed.

Sewage Sludge

The progressive implementation of the Urban Waste Water Treatment Directive 91/271/EEC in all Member States is increasing the quantities of sewage sludge requiring disposal³. From an annual production of some 5.5 million tonnes of dry matter in 1992, the Community is heading towards nearly 9 million tonnes by the end of 2005. This increase is mainly due to the practical implementation of the Directive as well as the slow but constant rise in the number of households connected to sewers and the increase in the level of treatment (up to tertiary treatment with removal of nutrients in some Member States).

The Directive sets the following targets for secondary treatment of waste waters coming from agglomerations:

1. at the latest by 31 December 2000 for agglomerations of more than 15,000 P.E. (population equivalent);
2. at the latest by 31 December 2005 for agglomerations between 10,000 and 15,000 P.E.;
3. at the latest by 31 December 2005 for agglomerations of between 2,000 and 10,000 P.E. discharging to fresh waters and estuaries.

There are more stringent provisions for agglomerations discharging into sensitive areas such as fresh waters or estuaries.

The Sewage Sludge Directive 86/278/EEC seeks to encourage the use of sewage sludge in agriculture and to regulate its use in such a way as to prevent harmful effects on soil, vegetation, animals and man. To this end, it prohibits the use of untreated sludge on agricultural land unless it is injected or incorporated into the soil. Treated sludge is defined as having undergone "biological, chemical or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use". To provide protection against potential health risks from residual pathogens, sludge must not be applied to soil in which fruit and vegetable crops are growing or grown, or less than ten months before fruit and vegetable crops are to be harvested. Grazing animals must not be allowed access to grassland or forage land less than three weeks after the application of sludge. The Directive also requires that sludge should be used in such a way that account is taken of the nutrient requirements of plants and that the quality of the soil and of the surface and groundwater is not impaired.

The Directive specifies rules for the sampling and analysis of sludge and soils. It sets out requirements for the keeping of detailed records of the quantities of sludge produced, the quantities used in agriculture, the composition and properties of the sludge, the type of treatment and the sites where the sludge is used. Limit values for concentrations of heavy metals in sewage sludge intended for agricultural use and in sludge-treated soils are in Annexes I A, I B and I C of the Directive.

Although at Community level the reuse of sludge accounts for about 40% of the overall sludge production, landfilling as well as incineration in some Member States are the most widely used disposal outlets despite their environmental drawbacks.

³ Sludge originates from the process of treatment of waste water. Due to the physical-chemical processes involved in the treatment, the sludge tends to concentrate heavy metals and poorly biodegradable trace organic compounds as well as potentially pathogenic organisms (viruses, bacteria etc) present in waste waters. Sludge is, however, rich in nutrients such as nitrogen and phosphorous and contains valuable organic matter that is useful when soils are depleted or subject to erosion. The organic matter and nutrients are the two main elements that make the spreading of this kind of waste on land as a fertiliser or an organic soil improver suitable.

PCB's and PCT's

Polychlorinated Biphenyls (PCBs) and Polychlorinated Terphenyls (PCTs) are among a group of man-made chemicals that are known as Persistent Organic Pollutants (POPs). PCB/PCTs⁴ were commercially produced world-wide on a large scale between the 1930s and 1980s. Given their extraordinary chemical stability and heat resistance, they were extensively employed as components in electrical and hydraulic equipment and lubricants.

They have been used in two types of applications:

- **Closed uses:** dielectric fluids in electrical equipment such as transformers, capacitors (big industrial capacitors, but also small capacitors in household electrical appliances), heat transfer and hydraulic systems;
- **Open uses:** as pesticide extenders, sealant, carbonless copy paper, industrial oils, paints, adhesives, plastics, flame retardants and to control dust on roads;

In the 1970s, owing to severe concerns pertaining to their human toxicity, suspected carcinogenicity, and environmental persistence, several countries limited the use of PCB/PCTs. Finally in 1985, the use and marketing of PCB/PCTs in the European Community were very heavily restricted.

PCB/PCTs are classified as probable human carcinogens and produce a wide spectrum of adverse effects in animals and humans, including reproductive toxicity, teratogenicity and immunotoxicity.

They can be transported long distances in the environment and have been detected in the furthest corners of the globe, including places far from where they were manufactured or used. They have been detected in virtually all environmental media (indoor and outdoor, surface and ground water, soil and food).

Directive 96/59/EC on the disposal of PCB/PCTs aims at disposing completely of PCB/PCTs and equipment containing PCB/PCTs as soon as possible, and for large equipment before the end of 2010. This Directive sets the requirements for an environmentally sound disposal of PCB/PCTs. Member States have to make an inventory of large equipment containing PCB/PCTs, have to adopt a plan for disposal of inventoried equipment, and outlines for collection and disposal of non inventoried equipment (small electrical equipment very often present in household appliances manufactured before the ban on marketing of PCB/PCT's).

Furthermore, the Commission has adopted a Community Strategy on Dioxins, Furans and PCB/PCTs aimed at reducing as far as possible the release of these substances in the environment and their introduction in the food chains.

In addition, EC Regulation No 850/2004 on persistent organic pollutants covers PCB. This Regulation places restrictions on the production, marketing and use of POPs, and the safe management of waste POP stockpiles. The Commission has carried out a study to facilitate the implementation of the waste related provisions of this Regulation.

Mining Waste

Waste from extractive operations (i.e. waste from extraction and processing of mineral resources) is one of the largest waste streams in the EU. It involves materials that must be removed to gain access to the mineral resource, such as topsoil, overburden and waste rock, as well as tailings remaining after minerals have been largely extracted from the ore.

⁴ PCB/PCTs are classified as probable human carcinogens and produce a wide spectrum of adverse effects in animals and humans, including reproductive toxicity, teratogenicity and immunotoxicity.

They can be transported long distances in the environment and have been detected in the furthest corners of the globe, including places far from where they were manufactured or used. They have been detected in virtually all environmental media (indoor and outdoor, surface and ground water, soil and food).

Some of these wastes are inert and hence not likely to represent a significant pollutant threat to the environment save for smothering of river beds and possible collapse if stored in large quantities. However, other fractions, in particular those generated by the non-ferrous metal mining industry, may contain large quantities of dangerous substances, such as heavy metals⁵.

A comprehensive framework for the safe management of waste from extractive industries at EU level is now in place comprising:

- Directive 2006/21/EC on the management of waste from the extractive industries (the mining waste directive);
- a Best Available Techniques reference document for the management of tailings and waste-rock in mining activities; and
- an amendment of the Seveso II Directive to include in its scope mineral processing of ores and, in particular, tailings ponds or dams used in connection with such mineral processing;

Titanium Dioxide

Titanium dioxide pigment (TiO₂) is a white powder with high opacity and brilliant whiteness. These properties have made it a valuable pigment and opacifier for a broad range of applications in paints, plastic goods, inks and paper. Titanium dioxide is also used in many white or coloured products, including food, cosmetics, UV skin protection products, ceramics and rubber products.

Titanium dioxide pigments are made from two chemical processes: the sulphate or the chloride process. The chloride process produces titanium dioxide products by reacting titanium ores with chlorine gas. The sulphate process produces titanium dioxide products by reacting titanium ores with sulphuric acid. 70% of the European production is from the sulphate process and 30% from the chloride process.

The waste arising from the titanium dioxide⁶ production covers solid waste, strong acid waste, weak acid waste, neutralised waste, treatment waste and dust.

The EU legislation (Directive 78/176/EEC, Directive 82/883/EEC and Directive 92/112/EEC) on waste from the titanium dioxide industry aims to prevent and progressively reduce pollution caused by waste from the titanium dioxide industry with a view to the elimination of such pollution. It also seeks to harmonise laws on waste from the titanium dioxide industry in order to avoid distortion of competition within the internal market.

⁵ Through the extraction and subsequent mineral processing, metals and metal compounds tend to become chemically more available, which can result in the generation of acid or alkaline drainage. Moreover, the management of tailings is an intrinsically risky activity, often involving residual processing chemicals and elevated levels of metals. In many cases tailings are stored on heaps or in large ponds, where they are retained by means of dams. The collapse of dams or heaps may have serious impacts on environment and human health and safety as in Aberfan (Wales, 1966), Stava (Italy, 1985), Aznalcóllar (Spain, 1998), Baia Mare and Baia Borsa (Romania, 2000). Other likely significant impacts relate to the physical footprints of waste disposal facilities and resulting loss of land productivity, effects on ecosystems, dust and erosion.

These impacts can have lasting environmental and socio-economic consequences and be extremely difficult and costly to address through remedial measures. Wastes from the extractive industries have therefore to be properly managed in order to ensure in particular the long-term stability of disposal facilities and to prevent or minimise any water and soil pollution arising from acid or alkaline drainage and leaching of heavy metals.

⁶ Titanium dioxide pigment (TiO₂) is a white powder with high opacity and brilliant whiteness. These properties have made it a valuable pigment and opacifier for a broad range of applications in paints, plastic goods, inks and paper. Titanium dioxide is also used in many white or coloured products, including food, cosmetics, UV skin protection products, ceramics and rubber products.

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Persistent Organic Pollutants

The international community has called for actions to reduce and eliminate production, use and releases of the persistent organic pollutants (POPs)⁷. To that end, two international legally binding instruments have been negotiated and concluded:

- The Protocol to the regional UNECE Convention on Long-Range Trans-boundary Air Pollution on POPs, opened for signatures in June 1998 and entered into force on 23 October 2003.
- The global Stockholm Convention on POPs, opened for signatures in May 2001 and entered into force on 17 May 2004.

These instruments establish strict international regimes for initial lists of POPs (16 in the UNECE Protocol and 12 in the Stockholm Convention). Both instruments also contain provisions for including additional chemicals into these lists. They lay down the following control measures:

- Prohibition or severe restriction of the production and use of intentionally produced POPs
- Restrictions on export and import of the intentionally produced POPs (Stockholm Convention)
- Provisions on the safe handling of stockpiles (Stockholm Convention)
- Provisions on the environmentally sound disposal of wastes containing POPs
- Provisions on the reduction of emissions of unintentionally produced POPs (e.g. dioxins and furans)

The European Community is strongly committed to the effective implementation of these two environmental agreements. Based on a Commission proposal, the European Parliament and the Council adopted Regulation (EC) No 850/2004 on 29 April 2004. This Regulation entered into force on 20 May 2004. The new Regulation complements the earlier Community legislation on POPs and aligns it with the provisions of the international agreements on POPs. To certain extent the Regulation goes further than the international agreements emphasising the aim to eliminate the production and use of the internationally recognised POPs.

European Community Implementation Plan

Each Party to the Stockholm Convention - individual states as well the European Community as a regional economic integration organisation - has to establish an Implementation Plan to show the concrete action that will be taken against the POPs listed in the Convention. The European Community Implementation Plan, which complements the national plans of the EU Member States, was adopted on 9 March 2007.

Identification of further POPs

Both international agreements on POPs include provisions for adding further substances that exhibit the characteristics of POPs to the technical Annexes. The Commission, together with the Member States, is promoting and supporting action to identify further POP candidates and initiate international action on their control.

Polyvinyl Chloride

Polyvinyl Chloride (PVC) has been at the centre of a controversial debate during much of the last two decades. A number of diverging scientific, technical and economic opinions have been expressed on the question of PVC and its effects on human health and the environment. Some Member States have recommended or adopted measures related to specific aspects of the PVC life cycle. However, these measures vary widely. In order to assess the whole life cycle of PVC and its possible impact on human health and the environment as well as the proper functioning of the internal market, the

⁷ Persistent organic pollutants (POPs) are chemical substances that persist in the environment, bio-accumulate through the food web, and pose a risk of causing adverse effects to human health and the environment. This group of priority pollutants consists of pesticides (such as DDT), industrial chemicals (such as polychlorinated biphenyls, PCBs) and unintentional by-products of industrial processes (such as dioxins and furans).

Persistent Organic Pollutants are transported across international boundaries far from their sources, even to regions where they have never been used or produced. The ecosystems and indigenous people of the Arctic are particularly at risk because of the long-range environmental transportation and bio-accumulation of these substances. Consequently, persistent organic pollutants pose a threat to the environment and to human health all over the globe.

Commission has carried out several studies and issued a Green Paper on Environment Issues of PVC.

Ozone Depleting Substances

The EU has approved specific legislation (the Regulation EC/2037/2000 on substances that deplete the ozone layer) to prevent leaks of ozone depleting substances and promote recovery after use in industrial processes, although not in manufactured products.

1.3 Waste Arisings

One of the major problems when dealing with strategy or planning issues in regard to waste management is the importance of having access to accurate and current data on which to base planning and resourcing requirements for the future.

This has been a problem in Albania both recently and historically. In order to produce a valid strategy and plan documents INPAEL has carried out a waste survey to estimate the quantity and composition of municipal waste in Albania.

The survey determined the weight and percentage composition of the following waste streams within the municipal waste stream: Organics; Wood; Paper; Cardboard; Low Density Plastic; High Density Plastics; Glass; Textiles; Ferrous Metals; Non Ferrous Metals; Healthcare Waste; Rubber; Inerts; Sanitary Product Waste; Waste Electrical & Electronic Equipment Waste (WEEE); Batteries & Animal By-Products.

The high rhythms of the population growth and high migration rate toward the most developed cities have had an impact in the increase of waste, and in particular of inert waste, quantity in these areas due to the construction of many new buildings, as well as the demolition of old ones. However based on the information that does exist (for Tirana, Durrës, Fier and Shkodra) suggests that Albania produces about half the average per capita volume of Organisation for Economic Co-operation and Development (OECD) countries and that this contains a higher proportion of organic matter than in OECD countries.

The table below outlines the results of the above mentioned survey.

Waste Area No.	Cities	Inhabitant	Waste generation kg/person/day	Waste production (Day)	Waste generation kg/person/year	Waste production (Year)	Average waste weight within container x No. of containers	Waste collection container	Vol. of containers in Litres	Frequency of collection	Settlement Population Range	Waste co-efficient kg per person per day
											Rural Communes	0.4
8	Erseke	2,956	0.7	2	247	730	36 x 124kg	36	1,100	3 x week	< 25,000 inhabitants	0.7
4	Koplik	3,569	0.6	2	205	730	80 x 124kg	80	1,100	Weekly		
6	Klos	4,344	0.7	3	252	1,095	20 x 124kg	20	1,100	Daily		
3	Rreshen	4,498	1.1	5	406	1,825	53 x 112kg	53	1,000	Daily		
8	Billisht	7,966	0.6	5	229	1,825	40 x 124kg	40	1,100	Daily		
4	Vau Dejes	10,240	0.3	3	107	1,095	22 x 124kg	22	1,100	Daily		
2	Fushe-Kruje	12,154	0.6	7	210	2,555	52 x 124kg	52	1,100	Daily		
1	Vore	16,350	0.6	10	223	3,650	120 x 124kg	120	1,100	40% Daily 60% 2nd day		
3	Lezhe	21,150	1.1	24	414	8,760	150 x 124kg 50 x 338kg	200	150 x 1100L 50 x 3000L	Daily 150 & 2 x weekly 50		
8	Pogradec	27,104	0.7	19	256	6,935	150 x 124kg	150	1,100	Daily	>25,000 but < 100,000 Inhabitants	1.0
1	Kavaje	28,193	0.9	24	311	8,760	195 x 124kg	195	1,100	Daily		
12	Lushnje	29,649	1.4	41	505	14,965	331 x 124kg	331	1,100	Daily		
9	Berat	36,354	0.9	34	341	12,410	270 x 124kg	270	1,100	Daily		
12	Fier	51,773	1.3	66	465	24,090	530 x 124kg	530	1,100	Daily		
8	Korce	56,593	0.9	50	322	18,250	400 x 124kg	400	1,100	Daily		
4	Shkoder	75,097	0.9	71	345	25,915	575 x 124kg	575	1,100	Daily		
7	Elbasan	78,446	1.1	88	409	32,120	350 x 124kg 250 x 180kg	350 250	1,100 1,600	Daily		
2	Durres	127,851	1.1	136	388	49,640	1,100 x 124kg	1,100	1,100	Daily	>100,000 but < 200,000 Inhabitants	1.1
1	Tirana	468,718	1.5	703	547	256,595	3215 x 192kg 255 x 271kg 48 x 361kg	3,518	3215 x 1700L 255 x 2400L 48 x 3200L	Daily	> 200,000 but < 750,000 Inhabitants	1.5

In terms of overall weight and based on 2009 INSTAT population figures of 3.2 Million residents, municipal waste production in Albania equates to an annual waste generation figure of 852,360 tonnes in Albania based on an average figure of 0.7 kg per person per day.

The data has been applied to each municipality in Albania and the table below illustrates the National figures for Albanian at municipal level and based on the waste area divisions.

Table: Albania – waste area

Waste Area/ Municipality	Pop 2001 Census	Pop 2009 Resident	Waste generation/ person/day	Tonnes per Day	Tonnes per Year
WASTE AREA 1					
Tirana	341,453	468,718	1.5	703	256,623
Kamez	44,443	59,952	1.0	60	21,882
Vore	12,885	16,350	0.7	11	4,177
Kavaje	24,776	28,193	1.0	28	10,290
Rrogozhine	7,071	9,398	0.7	7	2,401
Communes	167,298	217,439	0.4	87	31,746
WASTE AREA 2					
Durres	98,792	127,851	1.0	128	50,735
Shijak	8,097	7,892	0.7	6	2,016
Manez	7,587	6,314	0.7	4	1,613
Sukth	13,093	15,784	0.7	11	4,033
Kruje	13,075	8,102	0.7	6	2,070
Fush Kruje	18,441	12,154	0.7	9	3,105
Communes	86,084	132,286	0.4	53	19,314
WASTE AREA 3					
Lezhe	14,420	21,150	0.7	15	5,404
Rreshen	11,447	4,498	0.7	3	1,149
Rubik	6,842	2,215	0.7	2	566
Lac	19,964	12,988	0.7	9	3,318
Mamurras	17,676	9,798	0.7	7	2,503
Communes	86,138	108,122	0.4	43	15,786
WASTE AREA 4					
Koplik	3,126	3,569	0.7	2	912
Shkoder	83,273	75,097	1.0	75	27,410
Vau Dejes	9,430	10,240	0.7	7	2,616
Puke	4,579	2,735	0.7	2	1,460
Fushë Arrez	4,090	3,342	0.7	2	1,825
Communes	148,158	150,986	0.4	60	22,044
WASTE AREA 5					
Kukes	17,157	10,595	0.7	7	2,707
Krume	6,378	3,146	0.7	2	804
Bajram Curri	6,546	4,456	0.7	3	1,139
Communes	81,312	61,077	0.4	24	8,917
WASTE AREA 6					
Pershkopi	14,017	12,341	0.7	9	3,153
Burrë	12,123	7,087	0.7	5	1,811
Klos	10,489	4,344	0.7	3	1,110
Bulqizë	10,454	1,966	0.7	1	502
Communes	142,771	114,272	0.4	46	16,684
WASTE AREA 7					
Elbasan	86,148	78,446	1.0	78	28,633
Cërrik	9,406	9,806	0.7	7	2,505
Belsh	12,162	9,806	0.7	7	2,505
Peqin	7,267	6,740	0.7	5	1,722
Gramsh	10,533	9,323	0.7	7	2,382
Librazhd	7,216	6,291	0.7	4	1,607
Prrenjas	6,643	4,746	0.7	3	1,213
Communes	223,954	217,832	0.4	87	31,803
WASTE AREA 8					
Korçë	55,017	56,593	1.0	57	20,656
Maliq	5,655	4,921	0.7	3	1,257
Pogradec	23,762	27,104	1.0	27	9,893
Billisht	6,729	7,966	0.7	6	2,035
Leskovik	2,848	2,674	0.7	2	683
Erseke	5,499	2,956	0.7	2	755
Communes	159,079	153,859	0.4	62	22,463

Table: Albania – waste area

Waste Area/ Municipality	Pop 2001 Census	Pop 2009 Resident	Waste generation/ person/day	Tonnes per Day	Tonnes per Year
WASTE AREA 9					
Berat	44,040	36,354	1.0	36	13,269
Ure Vajgurore	9,181	6,925	0.7	5	1,769
Kucove	18,038	16,756	0.7	12	4,281
Corovode	6,755	4,330	0.7	3	1,106
Polican	6,623	5,293	0.7	4	1,352
Communes	108,383	101,125	0.4	40	14,764
WASTE AREA 10					
Gjirokaster	20,601	19,357	0.7	14	4,946
Libihove	2,317	4,249	0.7	3	1,086
Permet	7,726	6,510	0.7	5	1,663
Kelcyre	3,419	3,064	0.7	2	783
Tepelene	6,539	4,926	0.7	3	1,259
Memaliaj	4,748	4,547	0.7	3	1,162
Communes	67,478	59,858	0.4	24	8,739
WASTE AREA 11					
Vlore	77,652	97,729	1.0	98	35,671
Himare	3,278	9,535	0.7	7	2,436
Orikum	6,376	7,151	0.7	5	1,827
Selenice	3,949	4,767	0.7	3	1,218
Delvine	6,421	4,061	0.7	3	1,038
Sarande	15,247	20,095	0.7	14	5,134
Konispol	2,230	1,513	0.7	1	387
Communes	77,829	66,844	0.4	27	9,759
WASTE AREA 12					
Fier	56,164	51,773	1.0	52	18,897
Patos	21,812	19,795	0.7	14	5,058
Roskovec	5,939	4,568	0.7	3	1,167
Lushnje	37,860	29,649	1.0	30	10,822
Divjake	10,916	7,412	0.7	5	1,894
Ballsh	9,154	7,875	0.7	6	2,012
Communes	240,702	252,863	0.4	101	36,918

In addition to calculating the quantities of municipal waste produced in Albania, the other component of the survey was to calculate the quantities of 17 specific waste streams present in the municipal waste of Albania. In this regard the survey measured a total of 17 waste streams within the municipal waste at each of the designated survey points.

The generic percentage figures used in the table above are derived from an average percentage of the survey point figures outlined in the table below.

Waste Stream	Tirana %	Vore %	Durres %	Fushe Kruje %	Shkoder %	Lezhe %	Berat %	Lushnje %	National %
Organic	45.2	51.7	46.5	52.3	45.4	45.3	47.1	49.9	47.36
Wood	1.6	0.9	1.0	3.3	1.5	1.3	0.3	1.3	1.43
Paper	6.7	3.6	6.4	4.9	5.1	5.4	6.2	4.1	5.37
Cardboard	10.6	9.3	9.0	5.2	8.3	8.6	6.8	8.3	8.13
LD-Plastic	6.9	6.2	8.0	6.9	10.7	9.8	9.0	10.9	8.46
HD-Plastic	6.2	4.4	6.9	4.6	3.5	5.6	5.0	4.1	4.75
Glass	5.0	4.7	5.5	5.0	5.4	6.4	6.5	2.2	5.75
Textile	6.0	5.4	3.7	4.6	5.1	5.0	6.9	6.9	5.27
Metals –Ferrous	0.7	0.8	0.8	0.6	0.5	0.7	0.5	0.20	0.56
Metals – Non Ferrous	0.5	0.4	0.5	1.0	0.5	0.6	0.5	0.4	0.57
Hospital Products	0.2	0.06	0.1	0.2	0.1	0.6	0.07	0.1	0.17
Rubber Products	0.5	0.2	1.1	0.07	0.3	0.3	0.05	0.06	0.2
Inert	5.3	6.1	4.2	7.2	7.7	4.9	6.7	5.9	7.20
San-Pro Waste	3.5	3.3	3.3	2.5	4.3	4.0	3.1	4.5	3.25
WEEE	0.3	0.2	1.2	0.3	0.50	0.07	0.10	0.09	0.31
Batteries	0.04	0.02	0.3	0.04	0.03	0.01	0.01	0.02	0.02
Animal By-Products	0.8	3.0	1.6	2.1	1.14	1.5	1.4	1.0	1.08

The table below illustrates the national quantities of the above waste streams produced in Albania on the basis of the application of the average percentage figures to the total municipal waste generation figure for Albania. This detailed information is particularly useful to central government and local municipalities in forward planning for the transposition of waste stream specific objectives.

Waste Stream	Average % in Municipal Waste Stream	Weight within Municipal Waste of Albania/day (0.7kg/person/day)	Weight within Municipal Waste of Albania/year (266kg/person/year)
Grand Total		2,335 T/Day	852,360 T/Year
Organics	47.36	1,106	403,690
Wood	1.43	33	12,045
Paper	5.37	125	45,625
Cardboard	8.13	190	69,350
Total Biodegradables	62.3	1,454	530,710
LD Plastics	8.46	198	72,270
HD Plastics	4.75	111	40,515
Glass	5.75	134	48,910
Textiles	5.27	123	44,895
Metals – Ferrous	0.56	13	4,745
Metals- Non-Ferrous	0.57	13	4,745
Healthcare Waste	0.17	4	1,460
Rubber	0.2	5	1,825
Inert Waste	7.20	168	61,320
San-Pro Waste	3.25	76	27,740
WEEE	0.31	7	2,555
Batteries	0.02	1	365
Animal Bi-Product Waste	1.08	25	9,125

1.4 Current Investment Status

Waste legislation in Albania has not been supported by any proper infrastructure..

There is a complete lack of funding, planning and technical capacity within the sector and hence only the most primitive of services is being provided i.e. collect and dump.

The responsibility for urban waste collection lies with local authorities. Many have issued contracts for waste collection to be undertaken by private companies. There are often insufficient waste containers, and they are frequently in a very poor condition. The frequency of waste collection, and hence standing time, is highly variable.

Problems arise with the current collection arrangements include:

- Poor standard of vehicles;
- Poor condition of waste storage containers;
- Infrequent collection resulting in overflow of containers; and
- Waste on the street which causes odour, nuisance and health problems.

In smaller communities and rural areas no waste collection service is provided and individuals are responsible for removal and disposal of their own waste. This often results in the indiscriminate dumping of waste at roadsides or burning of waste in the open. Urban waste is mostly disposed of at nominated landfill sites, but significant quantities are also dumped at unauthorised locations at the edges of settlements and along roads.

No formal segregation of waste is undertaken by households or commercial entities prior to collection. However, in the larger cities some informal separation and collection of materials for recycling does occur. This is predominantly done by groups rummaging through waste on the streets in search of aluminium cans which are then sold for recycling. Other informal recycling occurs at the disposal sites where unauthorised groups scavenge for metals, plastic, paper and wood.

In most instances, the nominated sites are not engineered or well managed. They have been established without the necessary infrastructure or engineering provisions to collect and contain landfill leachate and landfill gas. Many of the sites are not secure and there are inadequate facilities for their operational management such as a site office, staff facilities, weighbridge, vehicle wash or lighting. As a result, unauthorised access and dumping is common, as are fires. The inspection of incoming waste is not commonly practised and records of deposits are not kept.

Unauthorised disposal is common on land and in watercourses, especially at the edge of the smaller settlements. Materials are often washed or blown away into the environment, contaminating adjacent land and water courses.

There are no licensed waste incineration facilities for the disposal of urban waste. It is nevertheless common for household and other wastes to be burnt in the open, giving rise to toxic gases and black smoke. Some wastes, including used tyres and wood wastes are burnt in lime kilns, releasing dioxins and other pollutants.

The level of environmental damage that results from these problems is extremely high. However, the costs of making improvements are also extremely high.

Investment in the sector to date has been very limited. The responsibility for the provision of these infrastructures is in the process of being devolved from the MoPWTT to the local authorities (municipalities and communes).

The current capital expenditure programme of the Ministry on waste management is relatively low and well below that required to meet the investment needs of Albania. The local authorities are also unable to provide the necessary capital investment funds. In addition to their lack of financial strength, the local authorities also have administrative and technical problems that make it difficult for them to develop the required infrastructure and services. In particular, loans or grants from international donors are not a realistic option for many authorities, as their degree of financial autonomy or of revenues are often insufficient to allow them to bid for them. Moreover, in many cases, the management structures to administer the loans and the infrastructure are not in place.

These problems need to be addressed to be able to find adequate finance to support the necessary level of infrastructure development. A key instrument in developing such a capacity is an Environmental Fund. The Environment Fund is to be established in line with the Government Programme. This Fund shall finance environmental investment projects. It is envisaged that the Environmental Fund shall address investment under the competence of several ministries, including activities like solid waste management, wastewater collection and treatment and other environmental protection investments.

1.5 Current Roles & Responsibilities

The Ministry of Environment Forestry and Water Administration (MoEFWA) is the main institution involved with waste policy and management. It is responsible for strategy formulation, legislative drafting, project preparation, preparation of permits for the Minister's signature, for central inspection, and enforcement. Together with the regional agencies and the Environmental Inspectorate it is responsible for setting up a system of environmental management of waste and monitoring its implementation at all stages and levels (Article 5 of Law 9010). The Ministry:

- Drafts the rules/legislation of waste management at all levels (separation, reuse, recycling, composting, disposal, incineration (article 11 of Law 9010) including technical standards and guidelines for hazardous waste (article 26 &27 of Law 9537);
- Issues waste permits (article 25 of Law no.9010) and changes or suspends it, (article 17 of Law 9537); export and transit permits for shipment of waste (article 27&28 of Law no.9010); HW export permit (article 21 of Law 9537); drafts the waste import permit (which is later to be approved by the Council of Ministers);
- Sets the rules for monitoring and inspection/control of implementation of the waste acts (article 30 of Law 9010);
- Organizes and manages the registers on different waste issues, such as on waste/permits (article 45/1 of Law 9890); on HW sites; on HW dealers and brokers (article 11 of Law 9537); on the transport means engaged in the transport of HW (article 10 of Law 9537); on HW permits (article 18 of Law 9537);

Environmental Forest Agency (EFA) is part of the MoEFWA, specialized in environmental monitoring and protection. EFA as the central body has twelve Regional Environment Agencies (REAs) that work at the regional level. EFA is responsible to the minister. EFA has a sector on Heavy Metals and Waste. Its job description basically includes data collection and management.

The EFA keeps the register of permits for the territory under their jurisdiction (article 14 of Law 9890). They are also involved in the approval of the waste collection sites (article 34 of Law 8405) and issuing in cooperation with local government authorities) of an environmental permit for local waste facilities (article 25.2 of Law 9010).

Environmental Inspectorate (EI), as part of the MoEFWA is a body specialized on control and enforcement of environmental legislation (article 20 of Law 8990); it sets penalties for the administrative violations (article 84 of Law 8934); suspends or permanently closes activities not complying with environmental legislation (article 86 of Law 8934); assists the physical and legal persons to realize the self-monitoring and the implementation of the integrated management systems; informs regularly the local authorities on the state of environment, on the approved activities, projects and installations; controls the pollutant's register, the inner technical and technological regulations and other documents related to the activity and the risks of pollution; publishes the results of every control (Article 71 of Law 8934).

The Environmental Inspectorate cooperates with other inspectorates to perform their duties (State Sanitary Inspectorate, Construction Police, Municipal Police, etc.)

Other Ministries, central institutions and local government bodies together with the MoEFWA have the following duties: design methodologies for the environmental treatment of waste in accordance with the type and nature of waste; make available and ensure efficient use of financial resources; continuously monitor and control waste generating activities; control agents engaged in transportation, recycling, processing and disposal of waste in the area under their jurisdiction (article 5 of Law 9010). Law no. 9010 makes responsible a number of stakeholders, to cooperate with the MoEFWA to draft and approve specific waste management regulations.

Ministry of Public Works, Transportation and Telecommunication (MoPWTT) has the mission of formulation, implementation and monitoring of national policies, norms and standards on "... public services... aiming at the sustainable development and promotion of private investment and economic growth..."

Together with the MoEFWA it is responsible to draft regulations on:

- Management of inert waste (article 12 of Law 9010). The inert waste regulation (no.1, dt.30.03.2007) was jointly approved by the Minister of EFWA and the Minister of PWTT. MoPWTT is, along with other authorities, responsible for its implementation.
- Regulation on management of bulky waste (article 17 of Law 9010). It is not drafted yet.
- Cross-border waste management (article 19 of Law 9010). It is not drafted yet.

Following its mission MoPWTT is the contracting authority for the concessions of economic activities under its responsibility (including the field of public services, so waste management, too), thus for waste concession projects (article 5 of Law 9663). This is to be decided by the Council of Ministers (article 5 of Law 9663). MoPWTT, in cooperation with the Concession Unit, identifies potential concessions and estimates their cost-effectiveness and financial appropriateness so as to judge on the implementation or not of certain concessions.

MoPWTT organizes the tender for the identification of the appropriate bidders to implement the concession and negotiates the conditions of the concession and under certain circumstances may also terminate the agreement on the concession (article 11, 15, 16, 20, 21, 28 of Law 9663).

Construction Police (depending on MoPWTT) is responsible for controls and inspections of the implementation of the regulation on inert waste together with other inspectorates such as the Environmental Inspectorate and Sanitary Inspectorate

National Council for Territorial Adjustment approves the site permits and construction permit for any objects (therefore for landfills, too) with a surface bigger than 0.5 ha, to be built outside the administrative borders of city/village/inhabited areas (article 9 of Law 8405).

Ministry of Health (MoH), together with the MoEFWA is responsible to draft regulations on:

- Different levels of waste management hierarchy (article 11 of Law no.9010), as well as of Healthcare waste management (Article 18 of Law no.9010). The regulation “On the healthcare waste management” has been jointly approved (no.6, dt.30.11.2007). The MoH is responsible for its implementation.
- Cross-border waste management (article 19 of Law no.9010). It is not drafted yet.

Hospitals and all healthcare waste generators are responsible for drafting and updating their own Waste Management Plans, in conformity with the National Waste Management Plans and Hazardous Waste Management Plans.

State Sanitary Inspectorate cooperates with the Environmental Inspectorate, and occasionally with other inspectorates, to carry out inspections of waste related activities. It is also involved in the approval of the waste collection sites (article 34 of Law 8405).

Ministry of Economy, Trade and Energy (in cooperation with MoEFWA) is in charge of drafting the regulations on:

- Industrial waste (article 13 of Law no.9010). The regulation is not drafted yet.
- Mineral waste (article 14 of Law no.9010). The regulation is not drafted yet.
- Rehabilitation of dump sites according to specifics of waste contained (article 22 of Law no.9010). The regulation is not drafted yet.

METE establishes a unit dealing with concessions, in charge of promoting and assisting the contracting authority for concession evaluation and negotiation (article 8 of Law 9663). This holds true for the concessions on collection, transport, processing and management of solid waste (article 4 of Law 9663).

Ministry of Agriculture, Food and Consumer Protection (in cooperation with MoEFWA) is in charge of drafting the regulation for agricultural and animal waste (article 16 of Law no.9010). The regulation has not been drafted yet.

Ministry of Defence (in cooperation with MoEFWA) is in charge of drafting the regulation for military waste (article 15 of Law no.9010). The regulation has not been drafted yet.

Ministry of Finance (in cooperation with MoEFWA) is in charge of drafting legislation for introduction of different environmental taxes (article 6 of Law no.9010). So far, it drafted the Law no.8977, dt.12.12.2002 “On taxation in the Republic of Albania”, where the two first environmental taxes have been introduced (the green tax and the packaging tax on beverages).

The Ministry of Finance drafts the rules on financial guaranties on environment for the environmental permit for a HW site, which are later approved by the Council of Ministers (article 14 of Law 9537). No such rules have been drafted yet.

The General Taxation Directory (under the Ministry of Finance) collects the incomes from environmental taxes that actually go to the state budget.

Local government is in charge of organizing waste removal and contracting the companies doing the cleaning of the cities (article 20 of Law 8094); draft and approve territory specific regulations on each of the waste management methods following the prototypes approved by the Minister of Environment and the Minister of Health (article 11 of Law 9010).

Municipalities and communes set the tariffs for waste removal in the territory of their jurisdiction and authorize the persons collecting them (article 31 & 34 of Law 8094);

Law no.8652, dt.31.07.2000 "On the organization and functioning of the local government" article 10 recognizes local waste management activities (collection, transport, treatment, and disposal) at local level as their own proper functions in the area of investments and public services.

Local government authorities are responsible for defining wastes collection and processing sites, in accordance with the environmental criteria and development plans; for organizing the disposal sites for both waste and hazardous substances; for urban waste and waste water treatment plants. Municipalities have sectors on city cleaning and waste management.

Council of Territory Adjustment of the Region/Municipality defines the collection site (of a surface equal or less than 0.5 ha) for all kinds of waste (technological/ urban/ inert) in the territories of their jurisdiction (article 9, 20 & 34 of Law 8405).

Each local government unit is the contracting authority for the concessions of economic activities under its jurisdiction, therefore for waste concession projects (article 5 of Law 9663).

Municipal Inspectorate cooperates with the Environmental Inspectorate, and occasionally with other inspectorates, to carry out inspections of waste related activities in the territories of their jurisdiction. Municipal Council is involved in the process of permitting of a HW site (Article 13 of Law 9537).

Economic agents involved in waste management/treatment activities:

- Separate waste at the source of its generation; properly collect, store and treat waste according to type; establish facilities and plants for waste recycling and processing; design programmes of technical, technological and organizational steps for waste management (article 9 of Law no.9010); They are obliged to carry their activities while posing no risk to human health, water, air, soil, plants and animals; no additional noise or smell; no irreversible damage to nature (article 21 of Law 8934);
- Separate hazardous waste from other waste, package, label and transport in accordance with national and international rules;
- Monitor their own waste generation, keep records (on types, quantities of waste they generate, re-use, recycle, recover, hold, transport, dispose, or incinerate) and publish the related information (article 10, 11, 30 & 31 of Law 9010);
- Inform periodically the REAs on HW they may have consigned to other persons and give them access to their HW registers (article 8 of Law 9537);
- Report to /inform the MoEFWA (article 55 of Law 8934) every 3 months (article 58 of Law 8934);
- Guarantee at their own expenses the safe disposal of exported waste when the transit countries refuse to allow it go through (article 27 of Law no.9010);
- Pay the transport, recovery and disposal costs for their own waste (article 10 of Law no.9537, article 7 of Law 9537);
- Design and implement their own programme for reduction of hazardous waste volume, quantity and toxicity (article 7 of Law 9537).

2. VISION, STRATEGIC PRIORITIES AND STRATEGIC GOALS

2.1 Albania and the European Union: Key Milestones

The aim of this strategy is to serve as a roadmap to the full approximation of Waste Management sector of the Acquis in Albania and support the integration of Albania into the European Union (EU), the continuation of the process of strengthening economic institutions and regional security, and the Euro-Atlantic cooperation in the economic and security fields.

In November 2005, the Government of Albania adopted the Integrated Planning System (IPS), a set of operating principles to ensure that government policy planning and implementation take place in a coherent, efficient and integrated manner. Two processes are the cornerstones of the IPS:

- A medium- to long-term strategic planning process, the National Strategy for Development and Integration (NSDI) (2007-2013), which establishes national strategic priorities and goals.
- A medium-term budgeting process, the Medium-Term Budget Programme (MTBP), which requires each Ministry to develop between March and June a three-year plan within a specified expenditure ceiling to achieve strategy objectives as intermediate steps to the achievement of the NSDI goals.

The National Strategy for Development and Integration and the Medium-Term Budget Programme accommodate fully the following parallel planning processes:

- The Government Programme 2009-2013;
- Integration into the European Union, in particular the implementation of the Stabilisation and Association Agreement (SAA), through the achievement of membership standards;
- Public investment management, which - under a new set of procedures implemented for the first time in 2007 - will become an integral part of the MTBP;
- External assistance, in particular the government efforts to optimise the use of foreign aid in agreement with the commitments of the Paris Declaration on aid effectiveness, which was signed in March 2005.

In the frame of the NSDI, the Council of Ministers approved the Inter-sectoral Environmental Strategy (Decision no. 847, Dt.29.11.2007).

Sector strategies, therefore the Inter-sectoral Environmental Strategy, too, are expected to be updated whenever there is a significant shift in strategy, while the NSDI is not expected to be updated. However, a review of the state of the implementation of the NSDI will take place on an annual basis at the beginning of the MTBP planning cycle to inform the preparation of initial sector ceilings. An annual progress report will be published. However, its main purpose will not be as a planning document but to serve as a monitoring document to build accountability.

On 12 June 2006, Albania signed the Stabilisation and Association Agreement and the Interim Agreement with the EU. The Government of Albania has prepared and is implementing the National Plan for the Implementation of the Stabilisation and Association Agreement as the main monitoring instrument of the political, economic, legal and institutional reforms and is considered an integral part of the National Strategy for Development and Integration.

The Stabilisation and Association Agreement is the instrument which will enable gradual integration of Albania into the European Union. The Agreement creates the necessary framework for strengthening

the rule of law, increase its effectiveness, and assist institutional and economic reforms with the aim to raise the standards of living for all citizens. Through this Agreement, Albania aims to attain the standards that will guarantee its status as a candidate state and subsequently association with the European Union.

The conditions for accession go well beyond the programme of work implied by the Stabilisation and Association Agreement. Albania will use the experience of the European Union enlargement to the countries of Central and Eastern Europe to organise its negotiating position regarding potential transitional periods for certain areas of the Acquis Communautaire. This will require in-depth assessments regarding the impact of adopting certain areas of the Acquis Communautaire in order to prioritise requests for transitional periods.

The Ministry of European Integration is the responsible institution for orienting, coordinating and monitoring the measures for the implementation of the requirements of the Stabilisation and Association Agreement and the Instrument for Pre-Accession Assistance.

The most recent progress report 2009, for Albania from the European Union is not positive in terms of the environment. Waste management in particular is seen as poor. The findings on waste management and other related areas are as follows:

“...There has been little progress in the area of waste management. The government adopted some implementing regulations. Apart from the rehabilitation of the Sharra landfill there have been no developments as regards municipal waste management. Uncontrolled dumping and burning of waste still represent environmental and health hazards.

Albania lacks a modern system of waste collection, disposal and recycling, and has not set up a clear strategy for the safe disposal of hazardous waste. Preparations in the field of waste management are not advanced.

...Further efforts are required to strengthen the administrative capacity of all institutions involved in environmental policy making and enforcement. Inter-institutional cooperation and coordination still needs improving. The National Environmental Strategy has not yet been approved. Further efforts are needed towards ratification and implementation of international conventions.

Overall approximation of legislation to the Acquis is making slow progress, but implementation and enforcement are still lagging behind. Preparations in the field of the environment are advancing slowly”.

2.1 Strategic Overview of the Waste Sector

2.1.1 Introduction to Waste Strategy

The national strategic aspirations in regard to waste are outlined in the following four key documents produced by the Government of Albania in the period November 2006 to March 2008:

- National Environment Strategy (the NES) published by the Ministry of Environment, Forestry & Water Administration on behalf of the Government of Albania in November 2006.
- National Strategy for Development and Integration 2007 – 2013 published by the Council of Ministers in March 2008.
- National Plan for the Implementation of the Stabilisation and Association Agreement 2007 – 2012 published by the Council of Ministers in September 2007.
- Environment Sector and Cross Cutting Strategy (National Strategy for Development and Integration) published by the Ministry of Environment, Forestry & Water Administration in November 2007.
- Draft strategy on hazardous waste, as prepared by EU CARDS 2002 project “On hazardous waste landfill”.
- Waste Framework Directive Implementation Plan, prepared by the EU CARDS 2006 INPAEL project.

In order to have a coherent one-piece strategic document on which the National Waste Management Plan could be based, the waste elements of the above strategic documents have been combined into this document, so to provide a clear National Strategy on Waste.

The strategy cover the period 2010 to 2025 which is seen as the important period prior to and immediately following EU Accession during which time the government of Albania has made waste management a priority issue and where significant effort will be made to radically improve the current situation.

The strategy is based on the four founding policy pillars of the National Policy on waste: **Planning, Education, Resourcing, and Legislation.**

In the above regard the Government is committed to a programme of environmental improvement as part of a wider political agenda to gain full EU membership for Albania. This will involve the implementation of an integrated planning approach to waste management at a National, Regional and Local level.

It will require the education of the youth of the country in new skills which in turn will create new opportunities for them in the environment sector. This programme of educational reform will touch all facets of our education system, schools; universities; vocational training for industry & the Ministries as well as a variety of public awareness campaigns in order to keep the public informed of new initiatives in waste management.

The Government has committed both through national funds and funding contributions from international donors to a significant investment programme in terms of both human resources and infrastructure in order to support this strategy and the National Waste Plan.

Lastly and probably most significantly the government is committed to a legislative transposition programme to ensure that all of the EU Directives relevant to the environment and waste management sectors are transposed into Albanian law.

Once EU accession has been achieved the dynamic of the waste management strategy will radically alter as Albania has the opportunity to access significant funds for infrastructure development. At this point the strategy should be revisited and a new strategy developed to take cognisance of advances made in this strategy and to take account of the opportunities available to Albania through infrastructure funds and any new technologies available.

The solutions put forward in this strategy document and in the new National Waste Management Plan will reflect the current financial position and will therefore be limited in this regard. They also reflect the existing situation regarding the status of existing infrastructure, technical capacities, existing waste management undertakings and it reflects aspirations which are in line with available resources.

This does not alter the fact that the Albanian government is committed to the adoption of both EU legislation and best practices or of the employment of cutting edge technology in the waste management sector, however it should be realised that Albania, like other past and present accession states, has got an over reliance on landfill as a main disposal option.

It will take time, for Albania to re-adjust and to introduce new waste management practices and the associated new technologies. The strategy realistically reflects timelines in this regard and the nation is not underestimating the challenge it faces nor is it shrinking from it.

The priority in this interim period is to have this strategy accepted and to have the associated National and Regional Waste Management Plans implemented in order that Albania can start on the road to compliance with the Waste Framework Directive. The plans and this strategy have been developed to reflect the realistic aspirations of Albania and they will be a solid foundation for the future.

The National Waste Strategy acknowledged the need to take full account of local needs and circumstances, in order to identify the best practical solutions for waste management across the country. To this end, the strategy envisages the development of 12 regional waste areas based on the geographical boundaries of the existing Qarks, within which plans would be developed by partnerships of local interests.

The strategy also recognises the need to identify priority waste streams in order that they can be the subject of special consideration by the government and the international donor community.

2.2.2 Waste Management: Sector Specific

Waste management in Albania is at a low level and presents problems for the collection near urban centres and especially waste processing in specified points, while rural areas are not covered by waste management services at all. Apart from the rehabilitation of the Sharra landfill there have been little developments as regards municipal waste management. Uncontrolled dumping and burning of waste still represent environmental and health hazards.

Albania lacks a modern system of waste collection, disposal and recycling, and has not set up a clear strategy for the safe disposal of hazardous waste. Waste generation and other waste indicators monitoring is missing and so does a modern database at national or local level.

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. This Government goal will be attained through an effective synergy of specific sector policies into a unique and integrated approach.

The vision is the sustainable development of the country while protecting as much as possible our natural resources from pollution and degradation and promoting environmental values.

Sustainable development is a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for future generations. To achieve such sustainable development, Albania needs an action plan that will work towards:

- improvement of life quality;
- creation of conditions for a sustainable and integrated development; and
- integration of environmental strategy with other sector strategies.

According to the Environmental Sector and Cross-Cutting Strategy (2007) the "Total urban waste generation in Albania exceeded 722 000 tonnes per year in 2006. The average volume of waste production is 550 kg per capita per year in urban areas and 170 kg in rural areas. Waste management in Albania is at a low level and presents problems for the collection near urban centres and especially waste processing in specified points". These figures were quoted on the basis of an EU statistical average and did not relate to actual population figures of the time.

In a recent waste survey carried out by the INPAEL project team it was established that in 2009 that total municipal waste arisings had arisen to 850,000 tonnes per annum, the equivalent of 266kg per person per year. This figure is expected to continue to grow as the economy develops and consumerism spreads.

2.2.3 Priorities in the Government Programme

To achieve accession into and full membership of 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 Priorities for Government in relation the environment sector, and in the context of the road to EU membership, are set out in a number of key strategic documents:

The Environment Sector and Cross-Cutting Strategy 2007 and the National Strategy for Development and Integration (2007-2013) outline 7 strategic priorities to be addressed within the EU Integration process. They are as follows:

2.2.3.1 Adopt European Community legal standards

This is a requirement of the accession process and the actions required to achieve this have been specified in the National Plan for the Implementation of SAA. New legislation will set interim targets, on the basis of a compliance cost assessment, to create a staged approach to achieving the standards.

The enforcement of legislation and increases in punitive measures against transgressors of environmental legislation is undoubtedly needed. The enforcement of legislation is currently weak. Greater enforcement will require additional resources to be given to the National Environment Agency and its regional offices as well as the National Environment Inspectorate. Strengthening the Regional Environment offices 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, and water and fishery resources. The successful implementation of EU legislation will also require improvements in the system of environmental permits, 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 environmental 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.

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.

2.2.3.2 Enforce waste legislation

This is a requirement of the accession process and the actions required to achieve this have been specified in the National Plan for the Implementation of SAA. Numerous waste related directives are to be transposed into the national legislation. New legislation on waste will set interim targets, on the basis of a compliance cost assessment, to create a staged approach to achieving the standards.

The enforcement of waste legislation, which is currently weak, and increases in punitive measures against transgressors of environmental legislation is undoubtedly needed. Greater enforcement will require additional resources to be given to the Environmental Inspectorate and Regional Environment Agencies, strengthening them to act as a means for communication between the National and the local level will be increasingly important as the decentralisation process continues. Moreover, the EFA 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 implementation of the waste legislation will also require improvements in the system of environmental permitting, which constitute the main mechanisms of control.

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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.

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Strengthening of the Environmental Inspectorate is urgently required. The inspectorate needs 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.

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.

This will be achieved through strengthening of the EFA and inspectorates, improvements in the permitting system, and highly visible enforcement against the worst offenders.

The 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 possibly even medium term. As discussed in the following sections the scale of change and investment required is too great.

Therefore the new waste 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 urban waste management remains a priority issue for the investments in the urban and rural infrastructure, accompanied with a significant financial bill.

Collection and treatment of urban waste constitutes a standard, the fulfilment of which is quite expensive. Considering that the European standards require approximately 5 € per m³, 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 Euros⁸ 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 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.

2.2.3.3 Invest in environmental protection

This will be done with a view to ensure that Directive 2008/98/EC on Waste and other waste related European Community acts and standards can be achieved within the next 20 years in the following areas:

Solid waste management and the design, construction and operation of landfills according to EU standards;

- Closing the existing illegal or non-compliant landfills in urban areas;
- Rehabilitation of contaminated land and sources of pollution;
- Technological improvement of both state owned and private industries.

The cost of such a programme will be large. Although the commercialisation of services has been achieved in some zones, it is still at an initial phase. Current tariffs for cleaning services, with few exceptions, like Tirana municipality, are relatively low and cannot ensure sufficient revenues for a commercial operator to make successful investments. Current levels of public spending for elements of this programme are insufficient to achieve the above results over a period of 20 years. In order to promote environmental investment, the government has agreed to establish an Environmental Fund⁹ to ensure initial financing for environmental investment projects.

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 medium 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.

⁸ This Data originates from the Environment Sector and Cross Cutting Strategy November 2007

⁹ In line with its Programme the Government will establish a special Environmental Fund that will be financed by environmental taxes and fines, as well as by donations. This Fund shall serve to finance projects 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.

Such a public investment programme will need to address:

- Solid Waste – prevention, preparation for re-use, recycling, recovery and disposal following the same priority order suggested by the waste management hierarchy.
- 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,

In determining the most appropriate investments, consideration must also be given to the operational costs associated with the investment, such as e.g. the cost of land for its implementation, thereby allowing for an affordable cost recovery tariff, which disadvantages neither the consumer nor the service provider. For example, the application of extensive waste 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.

2.2.3.4 Financial Support for Environment Infrastructure

The investments required for achieving the standards shall be assisted by the Environmental Fund, which is to be established in line with the Government Programme in its second two-year term. This Environmental Fund shall finance environmental and therefore waste investment projects, too. It is envisaged that the Environmental 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 Environmental Fund shall cover the needs of the Environmental Protection programme.

The Environmental 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 Environmental 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.

2.2.3.5 Manage environmental resources

Improved waste management all over the country will improve the efficiency of use of natural resources.

In addition the reuse of secondary aggregates from the demolition sector will reduce the pressure on virgin aggregates and the need for further quarry or gravel extraction.

2.2.3.6 Improve communication and awareness

The current level of environmental awareness is low, therefore resulting in damaging behaviour by citizens. Attention will be given to measures which provide information for the public, enhance awareness of legal requirements, and promote environmentally friendly behaviour.

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 MoEFWA 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.

2.2.3.7 Improve monitoring system

Specifying and achieving goals requires monitoring data on emissions and on the state of the environment, which for many issues are not available in Albania. The targets of the strategy focus primarily on achieving reductions in environmental pressures in order to achieve compliance with emission limit standards.

Compliance with the environmental quality objectives will only be achieved at a later stage; nevertheless, environmental improvement objectives are proposed in regard to waste management.

In addition to the above there are also important issues from the above documents pertaining to the waste management sector in the context of regional development, planning and infrastructure. These issues are outlined below.

Urban, rural and regional development

The National Strategy for Development and Integration aims to prevent uneven development from becoming an obstacle to growth. In regional and rural development, it proposes new policy making and implementation structures that prepare the administration for the efficient use of financial instruments that will become available in the years to come. In rural areas, the policy is driven by the need to ensure a minimum level of access to services that will sustain economic activity and promote economic diversification. This includes waste management, too. The dependence of many rural areas on tourism is expected to increase and this is one more reason for rural areas to be included into the integrated waste management schemes.

Spatial planning

Informality is one of the major challenges facing territorial and spatial development in Albania. Other important challenges in territorial and spatial development are:

- Demographic movement and rapid urbanisation: These phenomena are associated with the lack of urban planning and lack of consideration of its impacts on the existing infrastructure and the environment. New areas within the cities are being built without a plan for the extension of the needed environmental infrastructure, waste infrastructure included.
- Unclear division of responsibilities between the central and the local level: Many management functions in urban areas have been gradually transferred to local government units, without provision of the necessary human or financial resources to exercise these functions effectively.
- Low professional capacities in the area of planning.
- Rather high corruption in the administration.

The spatial planning policy in the future must promote and support sustainable territorial development to enable a rational use of land, natural resources and environment. Waste management

infrastructure must be taken into consideration when planning spatial development of cities and regions.

Regional based waste infrastructure development

This strategy, while aiming to implement the waste Directives in Albania, will tent to close the current dumpsites that do not comply with the requirements of the Landfill Directive. Besides, it tents to reduce the number and size of new landfills in the country, since it promotes the implementation and enforcement of the waste management hierarchy. The need for landfills will decline, since prior investments in waste infrastructure will have to go for waste minimization, separate waste collection at source, reuse, recycling and recovery, and drastically reduce the amount of waste to dispose off. A new concept is introduced through this strategy: that of regional based waste disposal infrastructure. What the strategy suggests is to leave behind the concept of 1 municipality – 1 landfill (at the moment more than 65 dumpsites exist in the country) and move to at least 1 landfill per region. Municipalities and communes under the same Qark have to make agreements for where to build the landfill, how to manage it, how to make it financially sustainable, etc. This will save space, investments, environmental impacts, etc. Under this new concept, roughly 12 landfills are needed for 12 qarks, so the number of landfills reduces drastically, more than 5 times.

Rural development

Living standards in rural areas are significantly lower than those in urban areas. The main dimensions of rural poverty are low income levels per capita, relatively higher incidence of health risks, insufficient public services, etc. Their poverty is also reflected in their exclusion from waste management schemes. The vision of this strategy is to contribute to the equal development of all rural zones, to improve the quality of life in rural zones, and to reduce rural poverty population in a sustainable manner. This vision applies to waste management, too. A lot needs to be done considering the lack of relevant experience and investments in these areas in the past.

Transport

The transport network inherited from the past was not sufficient to face the current and future socio-economic development of the country. Though considerable investments (rehabilitation and new construction in many segments) have and are taking place, the road network is still constrained in both coverage and quality in comparison with other countries. This may hamper to some extent the transport of waste to and from all potential sites.

On the other hand, the physical infrastructure of the railways is poor. Due to insufficient resources and lack of maintenance works, the technical standards of the railway are low and do not guarantee safe movement. The average speed of trains is at the level of 30-40 km/h. The quantity of freight transported is small and the average haul is extremely short. Yet improvement and/or maintenance of the railway system offers a good potential to improve waste transportation and management in the country, since all the coastal plain, where the overwhelming part of the population lives and where tourism is based, is linked to the network. Use of the railway system for waste transportation, wherever possible, would decrease the transport load, and therefore the traffic in the inter-urban roads.

2.3 Government Strategy

The Constitution of Republic of Albania approved by referendum in 1998, inspired by principles of Agenda 21 and by the international environmental conventions has sanctioned the aim of the state “for a healthy and ecologically suitable environment for present and future generations” and “for the rational utilisation of ...natural resources, based on the principle of sustainable development” (Article 59.1/d,dh). It also has sanctioned the right of each individual “to be informed of the state of the environment and its protection“(Article 56).

Albania's current waste strategy is based on its European strategy. The main objective of the government is to fulfil the obligations agreed to in the SAA (Article 108) stating that: "The Parties shall develop and strengthen their co-operation in the vital task of combating environmental degradation, with the view of promoting environmental sustainability". Co-operation will mainly focus on priority areas related to the Community Acquis in the field of environment. The statement covers all issues under the Environmental Acquis, therefore waste management, too.

Waste management has been identified and accepted as a high environmental priority issue in a number of strategy documents such as the Environment Strategy Study (WB, 1993), NEAP (1994), NEAP (2002), EPR Albania 2002 (UNECE), etc.

The need for improvement in the waste management area has been also recalled in different reports of the European Commission for Albania. The EC Progress Reports of 2006, 2007 and 2008:

- *encourage the "construction of infrastructure for urban waste handling; selective collection of waste, recycling and disposal;*
- *emphasize the fact that uncontrolled dumping and burning of waste continue to pose environmental and health risks;*
- *emphasize that no clear strategy for the safe disposal of hazardous waste is developed;*

Although waste has been widely accepted as a high environmental priority issue, no specific National Waste (or Hazardous Waste) Management Strategy and no National Waste (or Hazardous Waste) Management Plan has been approved so far. Lack of a Waste Strategy and Waste Management Plan in all these years has led to low efficiency of the funds used in this field.

However, a draft National Environmental Strategy (NES) was prepared in 2006 under the CARDS 2002 ELPA project. It was not approved as such, but following that draft and on that basis, the "Inter-sectoral Environmental Strategy; National Strategy for Development and Integration" was approved by the Council of Ministers (Decision 847, dt.29.11.2007). A chapter of that document is dedicated to waste management.

2.3.1 Hazardous Industrial Solid Waste

The collection and disposal of industrial waste is the responsibility of the producer. Information on the quantity or types of industrial waste is not collected. Precise information concerning its fate is not available, although it is known that much of it is disposed of at municipal waste sites, some is kept at the site of production, but some of it is also dumped at unauthorised locations.

Based on a comparison with other countries and assuming that generation is proportional to GDP, the level of industrial waste generation in Albania is estimated to be in the region of 170,000 tonnes per annum, of which a proportion would be classified as hazardous.

In general the main generators of industrial waste have been the chemical, metallurgical, mineral, oil, light and food industries, as well as the fertilizers, etc. From the aspect of the physic – chemical, toxicological and eco-toxicological features a part have been identified and classified as very toxic, toxic, corrosive, irritating, carcinogenic waste, etc.

From the overall quantity of chemicals of the chemical industry, 40 tonnes (3% of the total quantity) are very poisoning chemicals, 110 tonnes (7%) are extremely inflammable and inflammable, 575 tonnes (38%) have poisoning features etc. From which we can separate the cyanide, arsenic, mercury, vanadium oxide, some organic substances, etc.

2.3.2 Pollution of the Industrial Sites from the Waste Dumping

Based on a recent UNEP/UNDP re-assessment of the environmental conditions of pollution of the industrial sites from the waste dumping, the number of areas defined as environmental Hot – Spots has increased and the impact that these sites had on soil pollution and on the pollution of the ground waters in these areas has been evaluated as significant.

In some of these areas (the former P.V.C. in Vlora, the Oil Refinery in Ballsh, the oil extraction industry in Patos – Marinzë, former metallurgical cooper factory of Lac, the metallurgy of Elbasan, the batteries factory and former textile factory in Berat, the polluted area of Porto Romanos in Durrës, etc.) the risk for the human health and for the environment is particularly high and an emergent intervention for their full rehabilitation is urgently needed. Rehabilitation work for some of these hot-spots has been done already through a number of projects that have been supported by different donors, as shown below at section 2.6.7 International Donor Investments.

Based on available data from the identified hotspots in the whole territory of Albania approximately 70% of them had (and continue to have) an impact in the soil pollution. The most frequent potential pollutants in the identified areas expressed in % toward the total number of hot spots are shown in the table below.

Table: Potential pollutants in the identified areas

Areas	Percentage (%)
Polluted by heavy metals (Cu,Zn,Pb,As,Ni, etc) and solid industrial waste	45
Chemical waste stored in the depots (toxic chemicals, etc)	22.5
Chemicals and pesticides that is believed to have affected in the soil pollution	9.6
The areas polluted by the chlorine – organic substances	6.4
Areas polluted by oil and its components	6.4
Pollution by mercury	3.2
Others	6.9

2.3.3 Hazardous Waste

Legislation has recently been introduced to address the management of hazardous waste in Albania. However, at present there is no reliable data concerning the levels of hazardous waste actually generated.

Recent studies undertaken in connection with preparations for the construction of a properly engineered hazardous waste landfill site indicate about 3 - 4% of industrial waste is hazardous (excluding clinical waste and hazardous elements of domestic waste), a level comparable with that of other Mediterranean countries.

A critical issue which arises in this context is how to deal with the legacy of past activity, including the uncontrolled dumping of hazardous wastes, hot spot pollution and the storage of unused, outdated or banned chemicals.

Any effective HW strategy should recognize at least the following components:

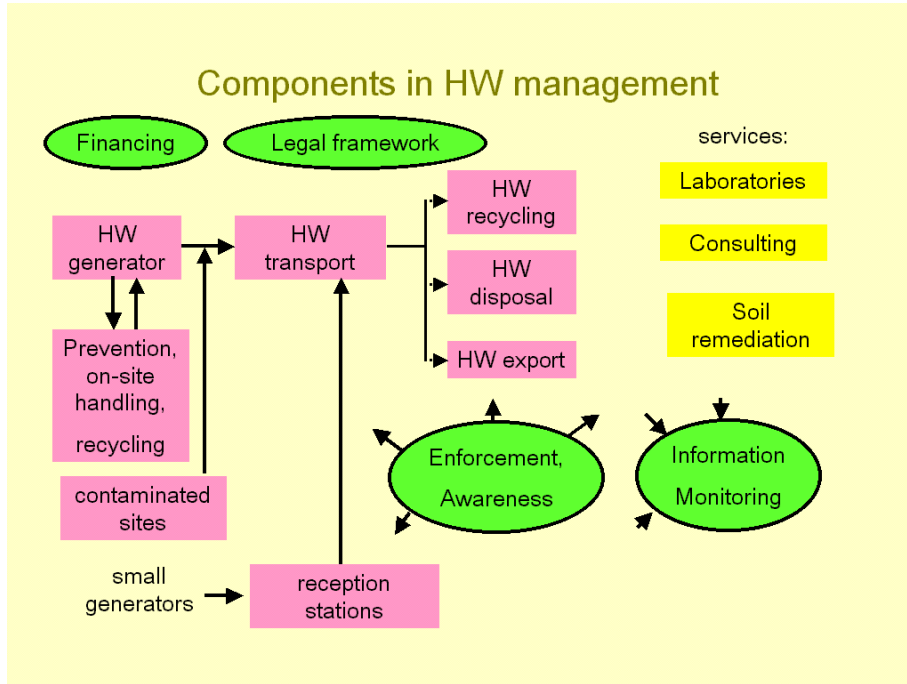
- that physical facilities are needed for HW treatment and disposal
- soil contamination and clean-up should be recognized as a huge potential source of HW; soil remediation must be implemented to deal with both inherited hot spots and existing polluting activities
- someone must finance these facilities and projects, either from private or public sector, international or a mix of these
- services are needed for analysing, collecting and transport of HW to the treatment sites as well as for surveys and projects in hot spot clean up
- the legal framework must be in place to regulate these services

A permitting, inspection, enforcement and monitoring system is needed to get the HW moving into the environmentally acceptable facilities

Information must be collected and disseminated to ensure identification and monitoring of HW streams and to build awareness in the industry about the legal requirements and available services and technology.

Finally, the institutional set-up and institutional capacity must be in place to deal with all the administrative tasks in the previous components.

Figure: Components of HW management



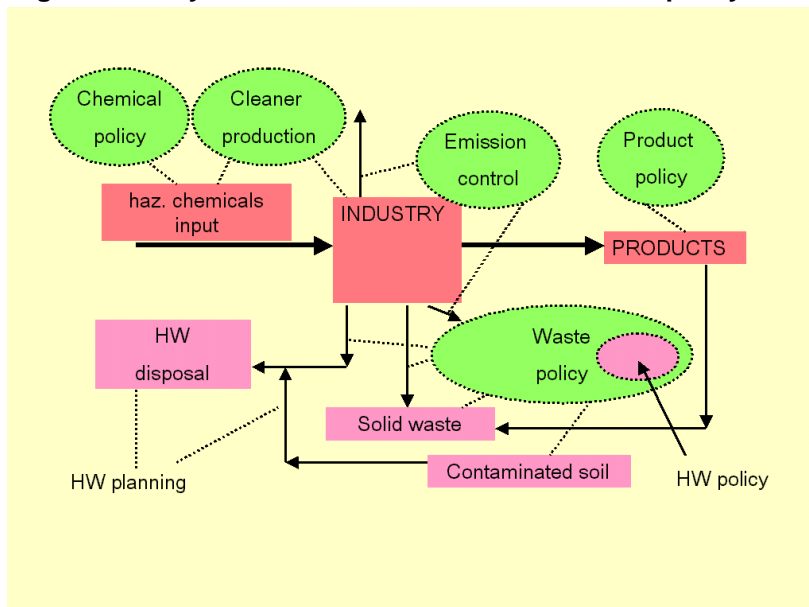
The modern environmental approach of pollution prevention or Cleaner Production also requires that there are elements of Hazardous waste prevention or minimization in the national HW strategy. The HW strategy cannot be developed as a stand-alone sector of the national environmental policy.

A key issue in this strategy will be the cooperation between the HW authorities and those governmental institutions that are responsible for the following sectors:

- o Solid waste management including supervision of industrial and municipal landfills
- o Emission control and pollution prevention to air, water and sewage system
- o Promotion of industrial modernization, including cleaner production
- o Product policy, including consumer safety, product standardization and issues related to recycling of products
- o Chemical policy, including chemical safety, risk management, licensing of hazardous chemical use and distribution
- o Policy related to soil protection and regulation of clean-up of contaminated soil

These linkages are illustrated in the following figure:

Figure: Policy sectors related to Hazardous waste policy



Based on the framework outlined above the following policy principles are included in the National Waste Strategy of Albania.

The strategic elements are structured under the following topics or elements:

- Planning and establishment of HW treatment plants
- Contaminated site remediation and prevention of contamination
- Establishment of HW management services, other than treatment
- Financing of HW management and soil remediation
- Legal framework
- Permitting, enforcement, monitoring and awareness
- Promotion of HW prevention – as part of cleaner production strategy
- Institutional set up and capacity building

2.3.3.1 Strategy Element 1: Planning and establishment of Hazardous Waste Treatment Plants

A national Hazardous Waste landfill site will be established and operated by the Government of Albania. The operation of this landfill could also be assigned to a private contractor, but this alternative cannot be foreseen in the near future, when most of the waste comes from hot spot remediation financed by the Government and international donors.

Incineration of HW is centralized in only one or a limited few installations with adequate air pollution control and high standard of monitoring of incoming waste and emissions. Incineration of certain HW types can be accepted in some cases using existing industrial thermal processes with high temperature and good control of emissions (cement kilns etc). For other HW types a special HW incinerator is needed.

Industry is encouraged to arrange the recycling of HW types with economical value. Companies that have the capacity to recycle their own HW are encouraged to accept similar waste from other companies.

For HW types that are very expensive to incinerate (halogenated solvents, pesticides etc.), export for treatment in other, more advanced countries is the only alternative.

Experience from all over the world indicates that compiling of a reliable inventory of HW generation will require several years. More reliable figures will not be available until when HW collection is started. This means that some of the facilities must be constructed first, based on very rough estimates.

2.3.3.2 Strategy Element 2: Contaminated site remediation and prevention of contamination

All major industrial hot spots will be cleaned to the level where the risks to human health and the ecosystem are acceptable.

Clean up will be prioritised based on risk assessment. The standard for the remediation outcome (“how clean is clean enough”) depends on the planned land use of the former industrial sites.

Clean up will be financed by international funding in the most severe cases, by the polluter if economically possible or by the investor in cases where the rise in value of the property will compensate for the remediation costs.

The internationally funded demonstration projects will be used efficiently to transfer technical know-how to Albanian service providers. Cost efficiency is emphasized in selection of the remediation technology. Local service providers are engaged in the internationally funded demonstration projects by encouraging use of local companies in the international tenders.

HW management and strict control of HW emissions will be geared to prevent new hot spots being generated.

Chemical risk assessment, planning for chemical accidents and prevention of chemical leaks and spills through preventive maintenance and good housekeeping will be required from significant users of hazardous chemicals.

The projects for establishing treatment facilities for the contaminated soil from the hot spots will be coordinated with the long term goal of establishing a permanent system of HW management in Albania. For example, the use of the HW landfill for the disposal of waste from the clean up is considered as the first priority for inorganic waste from the hot spots. Only in cases where the quantity of HW is too excessive to be transferred, is on-site encapsulation preferred. Export of HW from the hot spots to other countries is preferred only for wastes that require very special treatment that is not feasible in Albania – with the exception of procedures that have already started.

2.3.3.3 Strategy Element 3: Establishment of HW management services, other than treatment

Private sector actors are encouraged to develop services for HW management.

Transfer of know-how from other countries is facilitated through demonstration projects funded by international donors, by involving local consultants and other service providers.

2.3.3.4 Strategy Element 4: Financing of HW management and soil remediation

International financing in addition to governmental financing is applied for the HW landfill, clean up of historical contaminated sites and for studies, planning and transfer of know-how.

The costs of operation and maintenance of HW treatment and disposal facilities will be covered fully by user charges collected from HW generators according to the Polluter Pays Principle. However the cost of treatment of HW from clean up of historical contaminated sites must usually be covered from public and donor funds. Public-private partnership will be sought in financing HW treatment and recycling facilities. Also foreign investments in HW treatment and recycling are welcome. Part of HW treatment cost can be compensated by the value of the recovered chemicals.

The user charges of the HW treatment facilities will in addition to operation and maintenance costs also include costs of future re-investments for maintaining and developing the treatment facility.

2.3.3.5 Strategy Element 5: Legal Framework

The new (draft) Law on Waste Management and its implementing Decisions will provide the legislative framework for implementing this strategy. The Law for Chemical Preparations and Substances, the Law on Protection of Environment and the EIA law are also amended to be unified with this Law on Waste Management.

Technical issues related to HW identification, monitoring, treatment and management of HW facilities will be covered by Ministerial decisions or decrees and guiding documents prepared by MoEFWA in cooperation with other relevant authorities.

Legislation on soil contamination and clean-up issues will be prepared and adopted.

The permitting of HW handling will be regulated based on the principle of a one-stop service for applicants. This means that the permits required by different laws will be merged into one permitting procedure and overlapping or conflicts of permit conditions will be avoided.

At a later stage the Albanian pollution control legislation will be unified according to the Integrated Pollution Prevention and Control principles.

Safe recycling of HW in industry is encouraged by the guidelines. Permitting procedures for handling of one's own HW will be simplified compared to handling of HW as a service to other HW generators.

Discharge of HW to the sewer or air is clearly banned as well as mixing of HW with other wastes.

HW prevention and minimization will be promoted by the legislation and in using economical instruments.

2.3.3.6 Strategy Element 6: Permitting, enforcement, monitoring and awareness

In the first phase HW inspection is focused on the big generators and the generators of especially dangerous HW and HW that is suitable for the HW landfill – probably the first service that will be available and licensed. Punishing for not sending HW to an authorized treatment facility is not an

issue, before such plants are established. Meanwhile on-site treatment, recycling and safe storage are the main strategies.

The highlighted issues in inspection and enforcement work will be:

- Identification and classification of HW
- Establishing the registration and annual reporting system
- Enforcing separation of HW from other wastes
- Taking action to reduce HW emissions to the sewage
- Establishing safe storage
- Awareness raising on the obligations of the waste producer

MoEFWA and REA's will work together with the municipalities, solid waste management organisations and police to prevent HW discharge into municipal and industrial landfills and to restrain and recognize illegal dumping of HW.

Municipal authorities responsible for the sewage system are instructed to tighten the control of chemical emissions to the sewer. Industries connected to the sewer system are required to have a self-monitoring system for their emissions and emission limits are enforced.

The environmental authorities responsible for EIAs, licensing, inspection and enforcement of industrial emissions to air and water will emphasize best available technology for reducing toxic emissions. Cleaning of gas emissions will generate more HW to be treated.

Environmental permitting will be developed based on Integrated Pollution Prevention and Control, and Cleaner Production alternatives (such as prevention of waste) will be promoted as a first priority in relation to end-of-pipe solutions. This means that substitution of hazardous chemicals, better efficiency in the use of raw materials and water, process modifications, preventive maintenance and spill control etc. will be preferred before investing in new wastewater, gas or waste treatment plants.

Import of HW to Albania is not allowed. This can be later re-considered to allow regional cooperation or recycling of wastes that are classified as hazardous. Export of HW to other countries with appropriate treatment technology is accepted, following the conditions of the Basel Convention, if the unit cost of such treatment in Albania would be prohibitive.

Monitoring of HW quantities is based primarily on the self-monitoring of the companies. Annual reporting of HW generation from all entities with environmental permit is required.

2.3.3.7 Strategy Element 7: Promotion of HW prevention – as part of cleaner production strategy

HW prevention is promoted by the Government of Albania (GoA) by providing economical incentives for investing in cleaner production. This means modernization of existing industry, applying best economically reasonable technology to new factories and revamping equipment degraded by poor maintenance.

Substitution of industrial chemicals that generate especially harmful HW is promoted by using instruments such as user fees, guidelines in public procurement, transfer of know-how about substituting chemicals and in some cases phase-out programs for selected chemicals.

Albania will gradually adopt the principle of extended producers' responsibility, which means that producers are obliged to develop cleaner products and to arrange recycling of end-of-life products.

Numerical targets for HW reduction are not appropriate at this point, because HW statistics needs to be developed first.

2.3.3.8 Strategy Element 8: Institutional set up and capacity building

The duties and competencies of various authorities are defined in the legislation. These authorities have to be provided with adequate staffing, training and budgets.

In Albania, where the clean up of the inherited hot spots will generate most of the HW in the at least for a decade, the Government is bound to have a central role in arranging treatment of these wastes and contaminated soil.

The MoEFWA & MoPWTT will be assigned to key roles in establishing the HW disposal facilities and services together with the waste generators. MoEFWA or MoPWTT will own and operate the first HW

landfills and will also be involved in arranging nationwide waste oil collection and recycling and the network of other HW facilities. MoETE is responsible for promoting industrial modernization and cleaner production, prevention and minimisation of HW being one of the goals of cleaner production. MoLGD and MoTAT together with MoEFWA will coordinate the planning and establishment of reception centres for HW from household, services and small industry. These will be owned and operated by Regions or municipalities.

MoEFWA will be in charge of coordination of HW management and will be responsible of permitting, enforcement, monitoring and awareness raising.

Permitting and inspection procedures are streamlined in cooperation between MoEFWA and other relevant licensing authorities, such as MoETE, Ministry of Health, Ministry of Transport and Customs authorities.

2.4 Waste Management Principles

2.4.1 The Waste Hierarchy

At present the legislation of the European Community is focused on strict implementation of the waste hierarchy including: (i) *Prevention*, (ii) *Preparing for reuse*, (iii) *Recycling*, (iv) *Recovery*, and (v) *Disposal*.

This waste hierarchy aims to encourage the management of waste materials in order to reduce the amount of waste materials produced, and to recover maximum value from the wastes that are produced.

The National Waste Strategy adopts the waste hierarchy as one of its core principles.

Waste Prevention

The Albanian Government is working on programmes to promote waste prevention and minimisation. These are aimed primarily at producers of commercial and industrial wastes. In addition awareness campaigns will be developed to facilitate a major waste prevention campaign aimed at household wastes.

Reuse and Refurbishment

Major reuse and refurbishment opportunities exist in the management of end-of-life furniture, electrical and electronic equipment (including household appliances), and other products. These can provide significant business and employment opportunities, as well as potential training and social inclusion benefits for low or unwaged people.

Guidance on establishing community-based initiatives will be produced by a partnership between key national and local stakeholders. Potential also exists for a return to the use of multi-trip containers for a variety of products including soft drinks and milk.

Recycling and Composting

Recycling and composting are the primary means of maintaining the value of end-of-use materials. For these options to be viable, two core issues must be addressed. Firstly, the materials must be capable of being recovered in a form in which they can be used. Secondly, there must be a demand for the products.

In terms of making the necessary progress in household waste recycling and composting in Albania, primarily there will be a major increase in the public availability of recycling sites, kerbside segregated collection services and other technologies for reclaiming materials from waste.

The development of markets for the additional materials that will be collected is also a major priority and various initiatives targeted at market development will have to be implemented.

Energy Recovery

The recovery of energy from waste materials is a beneficial part of integrated resource management and can take many forms. Conventional techniques, such as mixed waste incineration, are often unpopular with the public and provide limited benefits. New ways of managing energy recovery are needed. Improved resource management can come from better source segregation of waste materials so that energy is recovered only from appropriate materials. Using alternative technologies including gasification, pyrolysis and plasma techniques may offer reductions in the potential risk to the environment and to human health.

Disposal

At the end of the hierarchy is safe disposal. Although this remains the least desirable option for waste, significant progress is being made in developing better engineered landfill sites for the future. Attention is also being given to the options for managing household hazardous wastes as a means of ensuring that landfilled wastes or wastes managed by mixed waste treatment systems are safer in the future. It is also important that a realistic approach is taken to the standards of landfills which are appropriate in Albanian conditions. *However all new landfills must be constructed to EU standards.*

The waste management hierarchy must be reflected in the decisions for the investments to be made. Investments on new landfills (which mean the last stage of the hierarchy) must be done only after investments for earlier stages of the hierarchy, i.e. for separate collection infrastructure, reuse, recycling and recovery have been made. This assures that new investments on landfills reflect the real current needs of the country, which will be much lower in the future due to the implementation and enforcement of the earlier stages of the hierarchy. This also assures that not only un-necessary investments are saved, but also that space is saved and un-necessary environmental impacts are avoided.

2.4.2 Proximity and Self-Sufficiency

The proximity and self-sufficiency principles require waste to be dealt with as close as possible to where it is produced. It is European Union policy that individual Member States should deal with their own waste, where possible, avoiding export to other countries.

The National Waste Strategy adopts the proximity and self-sufficiency as one of its core principles.

Albania aims to follow this principle. However, it is acknowledged that dealing with all waste within Albania may not be possible and may not always be the best solution.

Albania also aims to follow the proximity principle as far as possible at area waste planning level, although there may be clear benefits from joint infrastructure solutions between areas.

2.4.3 Polluter Pays

The 'polluter pays' principle requires producers of waste to bear the costs imposed by those wastes. The potential environmental and human costs of waste production, treatment and disposal should be reflected in the price of products and in the charges made for waste management services.

The National Waste Strategy adopts the polluter pays as one of its core principles.

The objective is to provide a fair system and one that discourages producers from generating waste in the first place.

3. NATIONAL POLICY on WASTE FOR ALBANIA

3.1 Policy for the Integrated Management of Waste

In order to effect change and to bring about long term sustainable solution to the existing waste management problems of Albania the Ministry has focused its attention on 4 policy pillars as follows:

Planning, Education, Resourcing, and Legislation

These policy pillars, which are fundamental to long term sustainable solutions in the waste management sector in Albania, need to be addressed as a priority in order to effect sustainable change. Changing the present attitudes and practices of individuals, commercial entities and institutions will take considerable time, effort and investment. Such an undertaking needs to be well planned at local, regional and national levels. Therefore the main focus of the early targets for this sector is the implementation of a simple but effective planning system.

3.1.1 Planning in Waste Management

The main focus of the early targets for this sector will be the implementation of simple but effective waste management plans (*National, Regional and Local Waste Management Plans*) based on newly defined waste areas across Albania. These waste areas will, in effect, be mirrors of the existing Qark administrative boundaries. These plans will identify the short and medium term investment and support needs. These can then be formulated into projects that are going to be funded from the governmental budget and potential contributions of donors.

The preparation of plans will require two phases:

3.1.1.1 Phase I – Preparation of the National Waste Management Plan

The National Waste Management Plan will be based on the 4 policy pillars and will set the framework for the development of the local and regional plans.

This will lead to the implementation of the requirements of the European Community waste management legislation, especially the Waste Framework Directive, in full.

The National Waste Management Plan sets out to provide the basis for:

- A national framework for the development of local and area waste plans which sets principles, addresses matters of national importance such as hazardous waste and clinical waste management, specialist recovery and recycling operations (such as tyres or plastics); and
- Local waste management plans that focus on the collection and disposal of urban wastes, including segregation of wastes and arrangements for recycling. These plans will often need to be coordinated between two or more local authorities.

The National Waste Management Plan will create the following main administrative structures to underpin the plan and its aims and objectives:

- National Waste Committee (political)
- National Waste Advisory Group (technical)
- Waste Area Groups

3.1.1.2 Phase II - Preparation of Regional and Local Waste Management Plans

This phase includes the preparation of local and regional plans in order to respond the short-term and medium-term needs.

Plans at regional (waste area) and local levels must include:

- Appropriate and effective collection and transport procedures;
- An inventory of existing sites, their state and remediation plans;
- Affordable standards for construction of landfill sites which minimise pollution;
- Mechanisms for increasing revenues from waste collection; and
- Steps to raise public awareness of damage caused by dumping waste.

Local authorities will be asked to include in their waste management plans also projects for clean-up of unauthorised places for waste disposal and rehabilitation of authorized locations.

However, imposing a requirement on local authorities to prepare plans will not be sufficient. Guidance, suitable standards (for collection, treatment and disposal), standardised project designs and technical support will need to be provided to the local authorities to ensure that the plans are of an adequate quality and that their results are comparable

3.1.2 Education in Waste Management

The purpose of a detailed plan is to facilitate the smooth implementation of a new system. The most important facet in any system is the people who will be operating and managing the new system. The key system stakeholders have to be educated in order to fulfil their potential within the system and in order that as a consequence of this the system performs to expectation.

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.

The training of these system stakeholders is vital to the successful implementation and operation of the system itself. Education and training can take the forms of: Public Awareness Campaigns, and Vocational Training or Tertiary education for those at a senior system management level.

3.1.2.1 Public Awareness Campaigns

One of the early measures which will be taken is to develop a coordinated awareness campaigns. The campaigns will aim to:

- raise general awareness of the consequences of indiscriminate waste dumping and open burning both in terms of the hazards to health and the reduced opportunities for economic development such as tourism;
- change attitudes and behaviour in locations and at times when new facilities for waste collection, segregation, recycling and disposal are being implemented. It is also proposed that the awareness campaign be followed up by an enforcement campaign against illegal dumping;

3.1.2.2 Vocational Trainings

At present there are limited "in-service" mechanisms available to enhance the professional capacity of public and private sector employees in the field of environment. Increasing capacity is vital, particularly in the process of devolving responsibilities to local and regional authorities.

Short courses that can be undertaken by individuals on a part time or short secondment basis represent a good mechanism to achieve developments in capacity. Such short courses should deal with specific topics, the completion of which will allow individuals to apply for a formal qualification in the field of environmental management.

3.1.3 Resourcing in Waste Management

As we have seen from the point above educated human resources are vital to the successful implementation and operation of any new system. In addition though, those human resources, and the system itself have to be adequately resourced. It is essential that the financial component of any area waste plan provides provision for appropriate and sustainable levels of funding. The National Waste Management Plan and the Local and Regional Waste Management Plans will foresee sufficient resources and will outline key elements of system funding and describe methods of calculation in this regard.

3.1.4 Legislation in Waste Management

Even though the above three policy pillars are in place a system still requires regulation and it is important to any system administrator that there is a robust set of rules or regulations, in this case, underpinning the system.

The Albanian Government is committed to a process of full EU membership and in this regard the Ministry of Environment has been working towards a point of transposition of key EU legislative instruments into Albanian legislative instruments. This work is likely to continue well into 2012 as the current status of Directives transposition is only partly completed. The legislation pertinent to this Waste Management Strategy has been presented in section 1.2.

This legislation lay down measures to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use.

The adoption of this legislation will have a profound effect on the manner in which Albania manages waste. This will be a major step towards improved resource use and the Albanian Government's overall goal of sustainable development.

3.2 Improving the Future Management of Waste

There are significant problems to overcome on the road to improvement and EU accession. The progress on the management of waste will be addressed through the following key areas of work:

1. plan measures to enable the segregation of materials from waste for recycling;
2. extend producers responsibility;
3. making improvements to the current waste data system;

3.2.1 Plan measures to enable the segregation of materials from waste for recycling

It is clear from the available data that Albania has a considerable potential for the waste recycling, especially for recycling of biodegradable waste as it constitutes a significant percentage of the overall waste. This is a positive aspect of data collected as it facilitates compliance with the diversion targets set under the EU Landfill Directive. The new National Waste Management Plan outlines measures to optimise recycling from municipal waste and meet the EU targets for separate collection for specific waste streams, reuse, recycling/recovery and waste diversion from Landfill.

For the improvement of materials recycling an indispensable condition is the segregation of waste at their source. This requires from the local government (municipalities) to organize or create a separate collection system or waste division of the waste from the households consisting in the division into streams. Three bins collection system is recommended to be implemented in all waste areas to separately collect: dry recyclables of any stream in the first bin, wet recyclables in the second bin, and other mixed waste that do not fit to none of the previous bins, in the third bin.

Dry recyclables will then go to Transfer Stations/ Centres for further more detailed stream-wise separation. Each of the carefully separated waste streams will go as an input to specific production processes/ recycling facilities.

Wet recyclables will go to composting facilities, to produce compost that later can be used to improve topsoil quality.

Only the content of the third bin will be sent to be disposed of in landfill.

In order to guarantee the quality of each waste stream as an input to specific production processes/ technologies, the content of each of the bins will be transferred to the next waste management stage, by use of specific transportation means. In particular, the dry recyclables must not be transported by use of the same transport means that carry waste from the second and third bin.

The other waste streams like the batteries and accumulators, Waste Electric and Electronic Equipment, End-of-Life Vehicles, etc. will be separately collected by the producers under the specific waste collection schemes that will be established following extended producers responsibility and the approval of the related specific regulation.

3.2.2 Extend producers responsibility

The producers (or their proxies: importers, distributors, etc.) must be fully responsible for the management of their products during their overall life cycle, and not only for the waste generated during the production activity. This means that producers of products which create problematic waste at the end of the product lifetime are made responsible for the collection of this waste (for example end-of-life vehicles, car batteries, waste oils, WEEE) and must cover all the expenditures for the waste collection schemes (i.e.waste generated from their products) to work in practise and for their waste treatment.

3.2.3 Improve the current waste data system

In order to be as close as possible to the reality, waste surveys have to be undertaken in all waste areas to calculate the daily quantity of urban waste produced by one inhabitant during one year, this based on the real conditions of each municipality as well as the standard of the community (the economical level) as well as the studies made by the foreign consultants in cooperation with the local government.

The National Waste Management Plan outlines methodologies to be used in order that each municipality can determine accurate quantities of wastes generated on an annual basis. This accurate data will enable the municipality and central government to better plan infrastructure requirements for the future.

3.3 Mechanisms to Ensure the Integrated Management of Waste

There is a range of challenges emerging in the field of integrated management of waste that are highlighting the need for reforms. These include:

Economic challenges:

Cost of waste treatment facilities and maintenance
Economies of scale (e.g. size and capacity of facilities,)

Environmental challenges:

Opportunity to reduce waste to landfill (investing primarily on separate collection at source, Transfer Stations/Centres for further stream-wise separation, reuse, recycling/recovery)
Reduce demand on natural resources for products (through recycling)

Social challenges:

Community demand for recycling programmes
Community demand for consistent services within Qark's boundaries

Legal challenges:

Increasing regulatory requirements (e.g. for landfills)
Potential for new statutory requirements (e.g. Environment Protection (Waste) Policy)

In order to meet these challenges Central Government has to be in a position, through a leading role played by the Ministry of Environment, Forestry & Water Management, to respond to the needs and concerns of other line ministries, the Councils of Qarks and others in the community who will need to be clear about their role in waste and resource management, and the types of reforms they can contribute to in a sustainable manner.

In addition to the waste-dedicated staff at the Ministry of Environment, Forestry & Water Management, there are other bodies that should be established to enhance the government's performance in this reforming process.

Proper and efficient implementation of the policy on integrated management of waste calls for the establishment of a three level groups:

- An Inter-Ministry Committee on Waste (at central and political level)
- A National Waste Advisory Group on Waste (at central and technical level)
- Waste Areas Groups (at local and technical level at each Qark/Waste Area)

3.3.1 Inter-Ministry Committee on Waste

Chair: Minister of Environment, Forestry & Water Administration

Members: Ministry of Public Works, Telecommunications & Transport
Ministry of Health
Ministry of Finance
Ministry of Local Government
Ministry of Education
Ministry of Defence
Ministry of Economy, Trade and Energy
Ministry of Agriculture, Food and Consumer Protection

The new National Waste Management Plan for Albania, which will cover the period 2010 to 2025, will highlight several issues which will need to be addressed to improve the manner in which the environment is managed at a senior political level.

One of the measures which is seen as being fundamental to good governance in terms of the environment will be the establishment of an Inter Ministry Committee on Waste. The committee will consist of senior government representatives, at Deputy Minister level, from each of the Ministries where there is an anticipated cross cutting with the environment sector. The committee will be chaired by the Minister of Environment, Forestry & Water Management and the list of Ministries who will participate as permanent members on the committee is outlined above.

Function of the Committee

The Ministry of Environment, Forestry & Water Administration has agreed on four key policy pillars: Planning, Education, Resourcing and Legislation (PERL).

Under the chairmanship of the Ministry of Environment, Forestry & Water Administration, the purpose of the committee will be to ensure that within each ministry there is a common and unified policy on the government's approach to waste management and the environment. The fundamental pillars of PERL will be cornerstones of each Ministry's approach to matters of the environment; and guidance in this regard to the PERL policy pillars will be issued to each of them by the Ministry of Environment, Forestry & Water Administration.

The Ministry of Environment, Forestry & Water Administration will ensure that each member Ministry is aware of their responsibilities under the terms of any new policy, legislation, guidelines, planning or other environment related initiatives. Also it must ensure that where there is a cost burden associated with compliance, and there inevitably will be, that the particular member Ministry so affected will calculate and report that anticipated cost back to the committee.

In addition each Ministry must take cognisance of the impact of new legislation or other instruments pertaining of the environment and assess internally their needs in terms of human resources and capacities in order that there can be a smooth transition where operational changes are envisaged or where additional burdens are placed on that Ministry.

Further, it is important that there is horizontal communication across the member Ministries on waste management initiatives, including the collection, storage and disposal of waste, the transportation of waste and the decommissioning of waste management facilities, by both the national government and the international donor community in order that resources are not wasted and that there are no overlaps on initiatives.

In particular it will ensure that within each Ministry there are clearly defined areas, where the particular operations of that Ministry impact on the environment and where these operations can be improved, appropriate steps are taken to mitigate against the existing negative environmental impacts.

In effect the Committee will be an Inter-Ministry consultation and communication networking tool within the government to ensure that waste management and the environment are given due consideration across government ministries and that these issues are addressed at a senior political level. It will also ensure that not only does the Ministry of Environment, Forestry & Water Administration become a cornerstone of environmental matter within central government, but it will additionally ensure that across government there is a clear commitment to PERL and that this commitment will be conveyed in a unified manner to government bodies and the private sector at both a national, regional and local level.

Terms of Reference for the Inter-Ministry Committee on Waste (IMCW)

Regular working meetings on a quarterly basis should be held to:

- ensure a uniform approach to policy and legislation
- determine the specific needs both in an economic and human resource context for environmental policy and legislative compliance for government Ministries
- convene meetings when appropriate with the National Waste Advisory Group
- convene meetings when appropriate with any of the Waste Area Groups

Each member of the committee may keep contacts/updates with the representative of the same institution at the NWAG to:

- evaluate the findings and recommendation of the National Waste Advisory Group on matters of PERL
- make recommendations to Ministers on the above results of the evaluation process in terms of PERL

3.3.2 National Waste Advisory Group on Waste

In parallel with the establishment of the Inter-Ministry Committee on Waste there will also be established a National Waste Advisory Group on Waste who will be selected from key, BUT competent, national and international stakeholders. The number of international stakeholders may obviously reduce in the future especially after Albania has joined the EU, however, in the immediate term it is felt that the presence of the international stakeholders will facilitate capacity building within the group.

Terms of Reference for the National Waste Advisory Group (NWAG)

- The proposed Terms of Reference for the National Waste Advisory Group is as follows:
- NWAG members would act as advisors to the Minister of Environment, Forestry and Water Administration and his designated representatives, and would therefore not be political figures; they would be non political technocrats;
- NWAG members will formulate recommendations to be put forward to the Ministry for approval, but the NWAG would not have any executive powers;
- NWAG members will be required to review and comment on any reports that are prepared as part of the respective technical components of the Ministry's function before being circulated to external stakeholders;
- NWAG members will be selected in such a way that it would anchor the Group as wide as possible outside of the Ministry, whilst still remaining as a lean and workable consultation group;

Criteria for membership at NWAG

Members of the NWAG should be technical experts in the field of:

- *municipal waste*: municipal waste management and be familiar with the fundamental principles of the Waste Framework Directive and the technology employed to manage municipal waste as well as associated best practice;
- *hazardous waste*: hazardous waste/industrial waste management and be familiar with technologies and methodologies for their management
- *waste transportation*: waste transportation and should be familiar with the requirements of ADR (from the French abbreviation Accord européen relatif au transport international des marchandises dangereuses par route) regulations and United Nations recommendations on the transport of dangerous goods;
- *healthcare waste*: Environmental Health, Occupational Health, Infection Control, HCW Management, Air Emission Standards or similar;
- *environmental data and information*: environmental information systems or environmental information management;
- *waste management policy, strategy, legislation*: waste management issues at a local and national strategic level;
- *recycling*: recycling on various levels, varying from formal material recovery facilities (MRF) to informal reclamation operations.

Composition of the National Waste Advisory Group

It is envisaged that, in order for the NWAG to function effectively, the number of members be limited to between 12 and 24 people, depending on the diversity of the particular technical component as well as the number of specialists available to participate on any particular subject being addressed by the NWAG. The following parties are for instance proposed for representation on the NWAG and would be invited to provide permanent members of the Group:

- MoEFWA
- Environment and Forestry Agency
- Head of the Association of Public Services
- Chairmen of Waste Areas Groups
- Environmental Consulting Firm Representatives
- Legal Firms representatives
- International waste experts/stakeholders
- Industry
- Albania Recycling Association

- Waste Management Companies
- E-NGOs with relevant engagement/expertise on waste issues
- Roma Groups

The NWAG would elect a chairman on an annual rotating basis from within the membership.

Communication lines

The chairman of the NWAG will submit the agreed recommendations or communicate with the MoEFWA or his appointed representative in writing directly to the Ministry. All NWAG related communication should be in writing (letter, fax or email).

The administration of the NWAG will be managed by a secretary who will be ministry staff/representative chosen by the Minister. The same person serves as a secretary, assists the minister and participates in the meetings of the ICWM.

In addition, the chairman of the NWAG will liaise with the chairmen of the WAG's to ensure that their responses are received in a timely manner and to ensure that they are aware of their responsibilities in any such national consultation process.

Meeting frequency

With the main purpose of NWAG meetings being for the purpose of advising Government on any waste related matters, whilst at the same time using the NWAG members as a consultative body for the first line of consultation, NWAG meetings will be called for at pre-determined points during each government session dedicated to waste. The frequency at which NWAG meetings are to be held is envisaged to be not more than every 3 months.

Financial implications related to the National Waste Advisory Group

Membership of the NWAG will be on a voluntary basis only and as such only expenses pertaining to NWAG meetings will be reimbursed by the Ministry on receipt of valid proof of expenditure.

Liason with the Waste Area Group (WAG) Network

The NWAG will consult the WAG's as part of their internal consultation process. This will be done through the NWAG chairman and the WAG chairmen and will be in writing.

4. ECONOMIC FRAMEWORK FINANCIAL IMPLICATION

The purpose of this section is to look at how the costs identified with the implementation of this strategy can be financed. It should be stated, however, that from the beginning the National Waste Management Plan will be designed in such a manner that it will take account of the situation in Albania in two distinct stages of development. Stage 1 will be the stage prior to EU Accession and Stage 2 will be the development period post EU Accession. These two development stages have distinct implications for waste management financing.

In Stage 1 the funding will be provided through the Central Government funding programme plus the finances pledged by the collective international donor community, either as donations, or specific loan finance agreements. These funds will be managed through Central Government mechanisms and the donor co-ordination unit at the Council of Ministers. Whether these funds will constitute an overarching Environmental Fund or not is yet to be decided.

In Stage 2 the funding will primarily come from the Central Government funding programme and the EU Infrastructure funding programmes.

In any event the implementation cost of compliance with the EU Framework Directive on Waste is estimated at between € 150 and € 200 Million with additional annual operating costs of around €52 Million per year by the year 13 after implementation.

The Lion's Share of the one-off costs is to be born by the public administration (€136 million or 88% of the total), of which the regions and local administration (€121million or 78%) and the central administration (€ 15 million or 10%, of which the bulk is to be born by the MoEFWA). The rest is to be shared between the construction and oil industry (€18.5 million or 12%).

The annual costs are to be shared more or less in the same way: public administration (€49 million or 92% of the total annual cost) of which the regions and local government (€ 45 million or 86%) and central government (€ 3.8 million or 6%, of which the bulk is to be born by the MoH). The rest is shared between the construction, oil and other industries (€4.34 million or 8%).

By type of implementation measures, the bulk of one-off costs will go for equipment and civil engineering (€133 million or 86% of the total), technical assistance (€ 12.4 million or 8%), public awareness (€ 8.3 million or 5.3%), etc. The annual costs will go basically for the operation and maintenance of new equipment (€ 41.7 million or 79% of the total annual cost), new personnel (€ 5 million or 9%), etc.

The total additional human resources required to implement the Waste Framework Directive is estimated at 350 full time specialists, of whom the majority will be employed by the public administration (277 or 80%), of which at the regions and local administration will receive the highest numbers (268 or 75%) and the rest at the central administration. MoEFWA will receive (9 or 2.6%). The healthcare establishments will employ 62 or 18% of the total additional number.

4.1 Sources of Funding

The starting point in allocating the costs of waste management in the future is the polluter pays principle, which means that the waste producers should as far as possible pay the full cost of managing their waste. Apart from being a legal requirement, this is a precondition for the long-term

financial viability and sustainability of the waste management sector, and will also provide an increasing incentive for waste 'producers' (i.e. including the producer of the related products) to reduce and recover waste. This latter factor is particularly important for hazardous waste since hazardous waste producers have hitherto been paying waste charges similar to those for non-hazardous waste or in some cases no charges at all.

However, while the ultimate costs of waste collection and disposal will be met by waste producers, there is still a financing issue, since capital expenditure will be required for the collection, transport and disposal facilities, and householders at least cannot be expected to finance capital expenditure.

4.1.1 Financial Stage 1: (prior to EU Accession)

It is assumed the Albanian Government (central, regional and local) will, at least in the first place, take the initiative to establish the facilities for the collection, and upgrading for recycling or disposal of waste. This will involve raising the finance, even though the costs of this finance will ultimately be met by the waste producers.

State, municipal or communal budgets

In the past and still at present, central government has taken a lead role in funding capital investment or feasibility studies in the waste management sector. This may be with or without co-funding from the international donor community and may be either part of the regular budget or a special allocation earmarked to deal with a one-off or special situation.

For example the Ministry of Public Works, Transport and Telecommunications (MoPWTT) has a medium-term financial plan for solid waste management. This is a plan rather than a hard budget and the funds are not completely secure. For the short run (period 2008-2010 and 2011) the MoPWTT has drafted its medium term financial plan for solid waste management.

The amounts allocated are Albanian Lek (ALL) 148 million for 2009, 350 million for 2010 and 400 million for each of 2011 and 2012. These sums appear to be allocated for specific projects, including:

- Construction of landfills (Shkoder, Bajram Currit, Rresheni, Skrapari, Fier, Lushnje, Elbasan, Vlore)
- Closure of landfills (Korce, Vlore, Durres, Pogradec, Elbasanit)
- Studies for closure and rehabilitation of existing landfills (Durres, Elbasan, Shkoder, Vlore, Sarande, Lushnje)
- Feasibility studies for landfills (in Lushnje, Fier, Elbasan, Vlore)
- Design of regional landfill for Vlora
- Consultancy

EU pre-accession: Instrument for Pre-accession Assistance (IPA)

The IPA was introduced in January 2007, and replaced various earlier EU programmes and financial instruments for candidate countries and potential candidate countries. The IPA is made up of five different components:

- Assistance for transition and institution building;
- Cross-border cooperation (with EU Member States and other countries eligible for IPA);
- Regional development (transport, environment and economic development);
- Human resources (strengthening human capital and combating exclusion);
- Rural development.

Component I falls under the responsibility of the Commission's Directorate-General for Enlargement, which is also responsible for the overall co-ordination of pre-accession assistance. It involves institution building measures and associated investment, as well as transition and stabilisation measures where necessary. It is delivered through annual national and multi-beneficiary programmes.

Component II supports cross-border cooperation at borders between candidate/potential candidate countries and between them and the EU countries. DG Enlargement and the Commission's

Directorate-General for Regional Development are jointly responsible for the implementation of component II. A joint application with the neighbouring country is required.

'Potential candidate countries' such as Albania are only entitled to components I and II above.

The EU makes multi-year indicative allocations according to the IPA Multi-annual Financial Framework MAFF.

The sums available in the future are likely to go on climbing slowly in real terms after 2011 until the date of accession. When Albania becomes a full candidate country there will also be an increase in the indicative allocations.

These amounts cover aid in all sectors, not just the environmental or waste sector. Projects are classified as political, economic and membership obligations. The division between these groups in the allocations for 2007 to 2009 was 30-35%, 20-25% and 40-50% respectively. Assistance in implementing the Waste Framework Directive would be classified as a membership obligation.

Starting with the 2008 IPA allocation, Albania is expected to provide co-funding – from 10% for technical assistance (TA) projects up to 25% for investment projects. However in the former case this co-funding may be 'in kind' rather than necessarily as a monetary contribution. Since this may include the salaries of participating public service counterparts, and since such participation is in any case desirable indeed necessary in a TA project, Albanian co-funding costs are assumed to be nil.

Grants from other international donors

According to the database of aid projects maintained by the foreign donor coordination unit within the Council of Ministers, non-EU donors have provided Albania with some €2600 million in aid over the last 9 years. Of this total, some €366 million was for projects in the environment sector. Only €22 million (all grant funding), or about 1% of the total, was for projects in the solid waste sector, while €280 million went to water and sanitation projects. Most of the projects in the solid waste sector were for the remediation of historical problems of contaminated land.

4.1.2 Financial Stage 2: (post EU Accession)

In this phase, which is of increasingly mature EU membership, major post-accession grant funding will be made available under the ERDF to finance necessary investment in waste areas:

EU post-accession: grants from the structural funds (ERDF and CF)

When Albania actually joins the EU it will be able to apply for funding under the European Regional Development and Cohesion Funds. It is not known at present how much would be available, but on the basis of the experience of the 2007 accession countries and of Romania and Bulgaria, amounts substantially exceeding pre-accession funding are likely to be available to help bring Albania's infrastructure up to EU standards. Albanian co-funding would almost certainly be required.

There are several approaches which waste areas can explore to raise the necessary finance:

1. Loan from an international financing institution (IFI) such as the World Bank or the EBRD. This is the most attractive option because the terms on which such loans are granted are less onerous than those of a commercial bank (lower interest rate, grace period, long term). One difficulty is that these may only be available for large investment project as most IFIs apply minimum thresholds to the size of loan they are willing to make (e.g. €20 million). Some IFIs require sovereign guarantees or other loan guarantees.
2. Loan from a commercial bank. While the terms are less attractive than from an IFI, as the credit market in Albania evolves and matures this should become a relatively straightforward option. Again, however, loans may need to be guaranteed.
3. Bonds issued by local Government authorities. Most local authorities will probably not yet at a stage where they can envisage issuing bonds as a means of raising finance. This is because

of their small size, and they lack of an independent audit of their accounts. Larger cities may be in a position to issue bonds to raise capital. To do this, however, they would require a credit rating from a credit rating agency such as Moody's, Standard & Poor.

4. Private capital (through PPP arrangements). At a later stage during the period under consideration it may be possible to attract private capital for some environmental infrastructure projects. At one end of the spectrum, municipalities could effect a service contract with a private company to collect waste and deliver it to a waste treatment centre, materials recovery facility or recycling plant in return for a fee. This avoids the financing problem for government, since it is the private company which raises the necessary finance, and in principle the fee can be recovered from the charges raised to the waste producers. On a more sophisticated level, private contractors could operate a sizeable portion of the entire waste management system in a prefecture as a concession or under a BOT (build - operate - transfer) contract. Such constructions will require a number of developments before they can be envisaged in Albania, including reform of accounting in municipalities and communal enterprises, clear evidence that the state is willing to enforce the new laws and that municipalities are willing to allow the real waste management costs to be charged to waste producers and the emergence of credible operators of the new facilities.

4.2 Waste Tariffs

Waste tariffs (named Cleaning Tariffs) are applied by municipalities to both residential and commercial customers as well as industrial entities. The setting of tariffs is governed by Law no. 9632, 30.10.2006, on Local Taxes Chapter VII, Article 35 and Law no. 8652, 31.07.2000.

Except where provided otherwise by the law, the Municipal or Communal Council determines the type of tariffs, level and rules of collection, and their administration.

The tariff for a 'small businesses may not exceed 10% of the tax level shown in the relevant Small Business Tax Table.

There is no specific central regulatory authority which reviews and approves tariffs or changes in tariffs.

The Municipal or Communal Council also determines whether charges will be collected by the local authority or by an agent appointed by it. Where charges are collected by an agent, he is appointed by the Mayor or head of the Commune, who enters into a contract with him (the agent). The agent must act according to rules set by the Municipal or Communal Council.

Revenues generated by the cleaning tariffs must be used only for the purpose they were created (they are not taxes).

The revenues raised through cleaning tariffs are randomly far from the budget used by that municipality for the city cleaning and waste management. Most of the municipalities need to add other resources so to complete their city cleaning and waste management budget.

Waste tariffs will likely rise to reflect the costs of complying with EU legislation.

4.3 Environmental Fund

The investments required for achieving the environmental standards will be assisted by the Environment Fund, which is to be established in line with the Government Programme.

Simply put, the main purpose of an Environmental Fund is to act as a central collection and distribution point for some or all of the revenues arising from environmental charges, fines, taxes and other sources, including donors. The distribution of funds to projects can then be done on clear and transparent criteria. Certain important conditions must be met in order that the Environmental Fund works properly. Firstly, it must be provided with adequate revenues to make a significant contribution. It must also be free from external interference in its fund allocation procedures.

Once the government has set the priorities for environmental improvement and the criteria for project selection, the Environmental Fund should be free to apply these criteria without inappropriate political influence. Its allocation of funds will need to be subject to periodic audit against the criteria.

Clearly, the activities of the Environmental Fund will need to be supervised, and although it will be an autonomous organisation like any bank, its supervisory Board will include the representatives of the relevant Ministries including finance, public works, interior and environment.

It is important for the private and non government sectors to be represented on the management board of the fund as it is these sectors that are directly affected by the problems which the Fund is intended to address, and they have access to local information and understanding which will be invaluable in ensuring actions of the fund are practical and realistic.

One of the main problems in making investments in communal environmental infrastructure in Albania has been the difficulty in attracting donor financing. The creation of an Environmental Fund will address this problem. The Environmental Fund will also be responsible for providing a centralised point through which donors can channel funding for priority projects and provide the necessary Albanian co-financing element.

5. ACCOUNTABILITY, MONITORING AND EVALUATION

5.1 Next Steps and Monitoring Progresses

5.1.1 Managing the Change

This Strategy presents real challenges to all stakeholders to maintain a coordinated approach to managing the transition to a modern waste management system in Albania.

Stakeholder involvement and partnership were central to the development of this National Waste Strategy and they will also be essential for the development of the National Waste Management Plan. Ongoing communication between stakeholders and an effective means of maintaining the momentum of the National Waste Management Plan will be essential. The ability to shape the future direction of the plan at a national level is also important.

Stakeholders' involvement in the development of the Regional and Municipal plans will be essential from the outset; reviewing and choosing between the strategic options that best suited their area. Preparation of the Plans will involve widespread consultation and awareness initiatives to encourage an interest in the process and ensure that views of stakeholders, including the public, could be taken into account.

Through this process solutions to waste problems will be considered at a local level and wide ownership of the final Plans will be created. Participation will be encouraged by a number of means including: press releases; posters; flyers; internet site; consultation meetings; consultations with schools; presentations to area fora; and answering questions from interested parties.

By taking a partnership approach, the Government will seek to ensure that Area Waste Plans will provide opportunities for all stakeholders to be involved and, in particular, that local authorities will be fully involved in the process of developing future solutions for the management of municipal wastes.

5.1.2 Keeping Stakeholders Informed

An **Annual Stakeholder Seminar** will be held at national level. This seminar will allow a wider group of stakeholders to meet annually. The aim of the seminar will be to involve stakeholders in reviewing progress in delivering the National Waste Management Plan. It will also provide a means of looking ahead and influencing the future direction of the plan.

A **web-based activities framework** will provide a means of updating progress in delivering Area Waste Plans and the National Waste Plan. It will set out in more detail the range of activities underway or planned as part of delivering the plans. As a framework of all key activities, it will give stakeholders the means to review progress, evaluate new developments, integrate their own work with the objectives of the National Waste Management Plan and record the activities in which they are involved.

5.1.3 Monitoring and Reviewing Area Waste Plans and the National Waste Management Plan

Waste management is changing at a rapid pace, with developments in legislation, technologies for collection, treatment and disposal, market development and improving data on arisings and composition.

The National Waste Management Plan and Area Waste Plans, therefore, need to be kept under review to ensure that they are responsive to change over time. This is particularly the case in dealing with those plans which have left open options for the longer-term and also to keep abreast of new waste treatment technologies.

It is also clear that whilst in the majority of cases the Area Waste Plan boundaries set out in the National Waste Strategy have been effective, there is a need to review the boundaries to ensure they are delivering the economies of scale and partnerships that were envisaged at the outset. A review of Area Waste Plan boundaries will, therefore, take place during the next two years.

The targets set out in each Area Waste Plan and other relevant objectives, including the action plans will be monitored and reported against a suite of national indicators. A suite of relevant indicators will be developed through a partnership between the Government, EFA, Qark and Municipality representatives, the Regional Environment Centre and the Albanian Recycling Association. Consideration will be given in this process to developing indicators that address social, economic and environmental factors.

Objectives and sector specific measures have been set in response to the environmental issues already identified. This chapter presents the means by which these objectives can be achieved.

5.1.3.1 Coordinating policies and our actions

To underestimate the importance of sustainable development, to see environment as a matter purely for environmentalists, to not recognise the shared responsibility which all sectors have for the state of the air, the water, the land; these are grave mistakes for which future generations will pay a heavy price.

Environment is a matter for all of the people in the country; all must play their part in environmental management and the realisation of the objectives of this strategy. Just as each person must play their own part, so must each institution and organisation in which we invest democratic trust - the institutions of government. To do this effectively institutions must coordinate their policies and actions so that laws, administration and investments are coherent and efficient.

5.1.3.2 Monitoring implementation

This strategy is part of the environmental management system of Albania which embodies monitoring and progress reporting. Since the strategy is part of the system, it too needs monitoring. Monitoring will be undertaken using a range of indicators. A core set will be continually reported comprising four types of indicators:

- State of the Environment Indicators
- Environmental Infrastructure Performance Indicators
- Financial indicators
- Administrative Indicators

State of the Environment

The ultimate measure of the implementation of this Strategy will be the condition of the environment in terms of waste management activities.

Therefore the first set of indicators published in respect of this Strategy is intended to provide a general indication of changes in the state of the environment.

One of the greatest challenges presented by this Strategy and the need to achieve sustainable development is the provision of communal infrastructure. Therefore four specific indicators, two for wastewater and two for solid waste, will be reported annually to show the level of communal service provision.

Element	Indicator
Waste	Collection and disposal of waste - % of population served
Waste	Recycling of waste - % of waste produced which is recycled

Financial indicators

It is also important to consider the amount of effort which is being made to tackle the major investment challenges. As such indicators of financial commitment will also be published.

Element	Indicator
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

Administrative Indicators

A basic aim of the strategy is the implementation of a modern environmental management system. It is crucial to know 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 overall performance of the administration in making the transition to a higher standard of environmental management will be recorded and published in the form of the following indicators.

Element	Indicator
Transposition of Legislation	Degree of concordance between national legislation and European Community Legislation
Environmental Information and Communication	Consultations with Stakeholders on going when drafting Waste Policy, Strategy, Plans and Law. Communication of Policy Information to all target Audiences. MoEFWA servicing the Environmental/Waste Management Communications and Information needs of all audiences
Fines / Enforcement	Systematic inspection against detailed conditions contained in environmental permits. High level of recovery of fines. Prosecutions mounted on the basis of criminal law regarding more serious environmental offences.
Environmental Education	Teachers trained to teach Environmental/Waste Management Issues and Waste Management/Environmental Studies as stand alone subject introduced into Pre University Curriculum. New Environment/Waste Management related Vocational Training modules introduced each Year. In-service training provided for both civil servants and contracted civil service workers. Primary Schools: Number of trainers qualified to train primary school teachers in environmental education techniques and modules.: Number of primary school teachers teaching the specialised environmental education modules.

In addition to the core set of indicators, specific measurements will also be made in respect of particular measures.

5.1.3.3 Reporting our progress

This strategy is a public document. It is a solemn undertaking by government to the people of Albania. But it will not be successful through government action alone. The cooperation of the public and of other non governmental stakeholders is vital. Government will lead by example; it will publicise and explain its actions to underline to the public its commitment and to encourage the public to contribute to the implementation of this strategy.

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 cut across a number of sectors. In order to address these it is important for 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, such as the new government intranet these difficulties should diminish.

The establishment of the Inter Ministerial Committee on Waste and the National Waste Advisory Group coupled the Waste Area 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 all waste management stakeholders.

Communication with the EU and other Donors

Progress will also be reported directly to donor partners and to the European Commission so as keep them informed of the effectiveness of their support and to appraise them of potential future needs.