

New additions to the document

In recent years the European Commission has attempted to develop new and innovative approaches to environmental policy, including the preparation of a new Environmental Action Programme, the design of a series of “thematic strategies”, and the adoption of an Integrated Product Policy to encourage a life cycle approach to environmental protection. Although many of these initiatives have yet to result in concrete legislation they are included here as they will lead to legal obligations for local and regional authorities, they will determine the scope of future legislation, and as a consequence they will have a significant impact on how we in Europe deal with waste and resources in the future.

- The European Commission **Sixth Environmental Action Programme (6th EAP)**, which was adopted in 2002, sets out the EU’s priorities in the field of environmental protection up to 2010. Four areas are highlighted: climate change; nature and biodiversity; environment and health; and the management of natural resources and waste. Measures to achieve these priorities include:
 - Improving the application of environmental legislation
 - Working together with the market and citizens and ensuring that other Community policies take greater account of environmental considerations.
- The 6th EAP includes the development of “**Thematic Strategies**” as a specific way to tackle seven key environmental issues. The Seven Thematic Strategies will include objectives and targets, precise measures, and a plan of implementation. Municipalities will be required to comply with the provisions contained within the thematic strategies.
 - The second half of 2003 saw the launch of the first Commission Communication on the **Thematic Strategy on the Sustainable Use of Natural Resources**, which has as its key objective to decouple economic growth from environmental degradation. This strategy contains clear linkages to the Thematic Strategy on Waste Prevention and Recycling and Integrated Product Policy. The strategy is still in a policy-scoping phase and the Commission is not obliged to propose the final strategy before 2005. A first stakeholder meeting on the strategy was organised by the Commission in November 2003. At this meeting it was decided to establish two stakeholder Working Groups to address and analyse specific issues related to the supply and the use of resources from the three perspectives of sustainable development. These working groups will present the Commission with their findings and recommendations in October 2004.

- The **Thematic Strategy on Waste Prevention and Recycling** was released in May 2003. This Communication includes an assessment of Community waste policy in relation to recycling and prevention and focuses on means to promote more sustainable waste management, by minimising the environmental impacts of waste, while also taking into account economic and social considerations. A first stakeholder meeting was held in summer 2003. At this event, key stakeholders were invited by the Commission to give presentations on the main themes raised in the document. This Thematic Strategy will differ from some of the other Thematic Strategies in that it is a review of existing policy rather than the creation of a new policy.
- The work on a **Thematic Strategy on Soil Protection** was also launched in 2003. The remit of this strategy is broad and covers soil issues related to erosion, organic matter and contamination. The future Directive will not only focus on waste management aspects, but also take due concern of soil protection elements, ensuring a more comprehensive policy approach.
- The **Thematic Strategy on the Urban Environment** focuses on 4 priority themes. These are: urban environmental management; urban transport; sustainable construction and urban design. The European Commission begin this work with the premise that the knowledge and techniques needed to bring about significant improvements in environmental performance in urban areas are already known. In addition, the Commission recognises that towns and cities themselves are best placed to develop the solutions to the problems they face.
- **Integrated Product Policy.** This aims to develop a more ecological product market by making products more environmentally sustainable throughout their life cycle. It seeks to integrate the many policies and tools that affect products during their life-cycles – from eco-design measures and life-cycle assessments through public purchasing and information campaigns to producer-responsibility mechanisms - to encourage greater penetration of the market place by “greener” products: something that requires efforts from both producers and consumers, as well as government.

All of the above initiatives are covered in this document.

What is beyond the scope of this document?

This document is intended as an overview of the key European Union legislative texts in the field of waste management that have most significant impact on local and regional authorities. The scope and mandate for this document did not allow

us to conduct any in depth analysis of the legislation or to assess the way in which the legislation is designed. As a result the reader should note that this document does not examine:

- Policy Conception (How policy is made? Who makes it? Why?)
- Policy Implementation and Enforcement (how much of the policy gets implemented and enforced within the Member States?)
- Policy Impact (what is the result of all of this policy / legislation, in administrative, financial, and environmental terms?)

These issues are crucial for a comprehensive understanding of EU environmental policy as the legislative texts themselves should be seen as the midway point of the process. What comes before the texts are agreed and what happens once the texts are finalised are the really important questions and should perhaps be the focus of future work.

This document does point to a number of key trends. First, the development of Thematic Strategies demonstrates that the European institutions are looking at waste and resource management in an integrated way.

In May 2004 the Commission presented a paper to the Informal Council of Environment ministers, which presents some of their ideas on ideas on how waste policy might evolve over the coming years. The Commission paper stresses a hope that:

- ***Future waste prevention policies will work towards a common goal*** - That these policies will aim to reduce the overall environmental impact of resources use by addressing priority wastes which exert significant environmental pressures. The key to these policies will be their flexibility and their successful implementation. Better product design and more informed corporate as well as private consumer decisions.
- ***An eco-efficient recycling policy will cover all waste materials*** – That legislation and economic instruments will promote environmentally favourable recycling of waste materials from all sources.

Sources and Resources

A number of sources have been used in compiling this document. These include:

- European Commission legislative texts (Directives, Communications and other texts.)
- Press Releases and Reports from European Commission Expert Groups and Working Groups
- Reports and Meeting minutes from European Council meetings
- European Commission Waste Briefs

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The Sixth Environmental Action Programme

On 24 January 2001, the European Commission adopted a proposal for an ambitious new environmental strategy that outlines the priorities for action on the environment up to 2010 and beyond. Stressing the importance of involving citizens and business in innovative ways, "Environment 2010: Our Future, Our Choice" focuses on four major priority areas for improvement:

- Climate Change
- Nature and Biodiversity
- Environment and Health and quality of life
- Natural Resources and Waste

In addition to the four focus areas, the programme will also develop individual thematic strategies to tackle seven key environmental issues. These are:

- Clean Air For Europe (CAFE)
- Soil protection
- Sustainable use of pesticides
- Protect and conserve the marine environment
- Waste prevention and recycling
- Sustainable use of natural resources
- Urban environment

The new Programme builds on the results of a Global Assessment of the 5th Environmental Action Programme, which was undertaken in 1998, as well as a consultation launched by the Commission in November 1999. It was adopted by the Council and the European Parliament on 22 July 2002.

Both the review and the consultation identified several strategies to improve EU environmental policy:

- Better implementation by Member states of existing environmental laws, including the highest possible level of harmonisation and approximation of laws to ensure the functioning of the internal market;
- 'Greening' the market: Working with business and consumers to achieve more environmentally friendly forms of production and consumption (e.g. Integrated Product Policy, environmental liability, fiscal measures and better information for citizens and stakeholder groups);
- Integration of environmental considerations into other policies such as transport, energy, agriculture and trade, as well as emphasis on the importance of spatial planning and action at the local and regional level to promote sustainable development.

In most areas, the programme limits itself to setting general objectives rather than quantified targets. For each of the four priority areas, the programme explains the issues, defines the objectives and lists the priority actions to be undertaken. The seven 'thematic strategies' combine different measures for achieving environmental objectives in the most cost-effective way in the seven key problematic environmental areas identified.

1) OBJECTIVE

With regards to Waste Prevention and Management, the goal of the 6th EAP is *"To decouple the generation of waste from economic growth and achieve a significant overall reduction in the volumes of waste generated through improved waste prevention initiatives, better resource efficiency, and a shift to more sustainable consumption patterns"*.

2) COMMUNITY MEASURES

- ✓ **Decision No 1600/2002/EC of the European Parliament and of the Council of 22 July 2002 laying down the Sixth Community Environment Action**

3) WASTE POLICY

Taking an 'at source' approach to waste prevention, the 6th EAP focuses on extending product life-spans, using less resources in products, and shifting to cleaner, less wasteful production processes, while at the same time influencing consumer choice and demand in the market place in favour of less wasteful products and services. With this in mind, it aims towards a parallel implementation of three key initiatives: The Thematic Strategy on the sustainable use of natural resources, the Integrated Product Policy¹ approach, and the Community chemicals policy.

The 6th EAP aims to:

- Ensure that the consumption of renewable and non-renewable resources and their associated impacts does not exceed the carrying capacity of the environment;
- Achieve a significant reduction in the quantity of waste going to final disposal and the volumes of hazardous waste produced;
- Achieve a significant overall reduction in the volumes of waste generated through waste prevention initiatives, better resource efficiency and a shift towards more sustainable consumption patterns.

¹ The Integrated Product Policy (IPP) provides a toolkit of instruments that can be applied to reduce the environmental impact of a product throughout its life cycle.

For wastes that are still generated the following goals are set:

- They should be non-hazardous or at least present only very low risks to the environment and our health;
- Preference should be given to reintroducing wastes into the economic cycle, especially by recycling, or returning them to the environment in a useful (e.g. composting) or harmless form;
- The quantities of waste that still need to go to final disposal should be reduced to an absolute minimum and be safely destroyed or disposed of;
- Waste should be treated as closely as possible to the place of its generation, to the extent that this is compatible with Community legislation and does not lead to a decrease in the economic and technical efficiency in waste treatment operations.

Article 7 sets out the following **Priority Actions** on waste and the sustainable use of resources:

- 1 Development of a Thematic Strategy on the sustainable use of resources, including:
 - a) Consideration of a best practice programme for business;
 - b) Identifying research needs;
 - c) Economic instruments;
 - d) Removal of subsidies that encourage the over-use of resources;
 - e) Integration of resource efficiency considerations into an Integrated Product Policy approach.
- 2 Development of a Thematic Strategy on waste recycling, including measures aimed at ensuring the collection and recycling of priority waste streams. For example:
 - a) Identify which wastes should be recycled as a priority, based on criteria linked to achieving maximum environmental benefits, and to ease and cost of recycling the wastes;
 - b) Formulate policies and measures (e.g. targets and monitoring systems) that ensure the collection and recycling of these priority waste streams occurs, and to track and compare progress by Member States;
 - c) Identify policies and instruments to encourage the creation of markets for recycled materials;
- 3 Integrating waste prevention objectives and priorities into an Integrated Product Policy approach and the Community strategy on Chemicals;
- 4 Revising the legislation on sludges;
- 5 Recommendations on construction and demolition waste;
- 6 Legislating on bio-degradable wastes.

The Community's approach to waste management policy is based on the waste hierarchy: prevention, recovery (material and then energy recovery), reuse, recycling, and finally disposal (i.e. incineration without energy recovery and landfilling).

Community waste policy and legislation is currently made up three main elements:

- i. Framework legislation on waste definitions, site permitting, waste shipments controls, etc;
- ii. Legislation governing the operating standards of waste facilities such as landfills and incinerators;
- iii. Legislation targeted at specific priority waste streams such as end-of-life vehicles with the primary aim of increasing recovery, and in particular recycling levels and reducing the hazardousness of these wastes.

This is supported by legislation to improve the availability of indicators and statistics to measure progress towards better waste and resource management.

Local authorities are recognised as being central to the implementation of waste legislation. The Programme therefore intends to improve their involvement in the preparation of legislation and to support greater exchange of experience and best practice.

Similarly, the Programme gives priority to investment in waste prevention and recycling initiatives and infrastructure in the Accession Countries. In the coming decade, these countries can expect a surge in waste management demands as a result of increased consumption and changing lifestyles. Consequently, besides requiring constant improvement, they will need to innovate to adapt what are in many cases over-stretched waste management systems.

4) TIMETABLE

- ✓ The Programme covers the period starting on 1 January 2001 and ending on 31 December 2010.
- ✓ The Programme will be subject to review in 2005 and revised and updated as necessary, to take account of new developments and information.

5) REFERENCES

Official Journal L 242 of 10/9/2002

Thematic strategy on the Sustainable Use of Natural Resources

1) OBJECTIVE

To ensure that the consumption of resources and their associated impacts do not exceed the carrying capacity of the environment and to break the linkages between economic growth and resource use.

2) COMMUNITY MEASURES

- ✓ **Communication from the Commission to the Council and the European Parliament "Towards a thematic strategy on the sustainable use of natural resources" (COM(2003)572) Brussels, 1.10.2003**

3) SUMMARY

Current patterns of resource use pose a serious threat to the environment. If not curbed, they promise to result in further deterioration with severe impacts on human health and economic prosperity. In its Communication on the subject, published in October 2003, the European Commission takes the first steps in developing a Thematic Strategy to meet these challenges by ensuring the sustainable use of natural resources.

The Resources strategy will focus on understanding and mapping the links between the use of resources and their environmental impacts in order to identify where action is needed. It will be the first EU initiative to tackle resources use in a fully comprehensive way. The strategy is being constructed around three core tasks:

- To gather and keep updated information (e.g. about the pathways and impacts of resource life-cycles, so as to identify the areas of greatest potential for environmental improvement);
- To assess policies that directly or indirectly affect resources (these include the various environmental strategies as well as fiscal, transport, agricultural and energy policies);
- To identify appropriate measures that will be integrated into other policies (in particular, under the Cardiff Process²).

² The Cardiff Integration Process seeks to increase integration of environmental issues into other policy areas.

The Resources strategy is one of the seven thematic strategies called for in the sixth Environment Action Programme. The Commission intends to finalise the Resources strategy with stakeholders by July 2005.

The time scale for the strategy is 25 years. This will provide the necessary time to implement new policies and adapt existing ones; for businesses, consumers and institutions to develop and adopt production and consumption patterns with lower impacts; and to develop public policies with clear long-term objectives in order to plan investment and innovate.

By aiming for resource efficiency and sustainable resource management, the strategy will also contribute to achieving sustainable production and consumption patterns. It is therefore part of the EU's response to the objectives agreed at the 2001 World Summit on Sustainable Development in Johannesburg, and towards achieving the European Council's goals of economic, social and environmental competitiveness as set out in the Lisbon agenda (March 2000).

Natural resources include both the raw materials necessary for most human activities and the different environmental media, such as air, water and soil, which sustain life on our planet. Careful management of the use of these resources is a basis for sustainable development. Consequently, the Commission defines the sustainable use of natural resources as:

- a) Ensuring the availability of supplies; and
- b) Managing the environmental impact of their use

Given the expected overall increase of resource use, the overarching environmental goal of a Resources Strategy should be to reduce the negative impact of resource use on the environment, i.e. on air, water, soil and living organisms. For this, it is necessary to identify the resource usage with the greatest potential for environmental improvement. The strategy therefore has to provide a knowledge base by "mapping the hot spots" of resource-related impact and then assessing the options for improvement. In assessing these options the likely socio-economic effects will be taken into account. The options are likely to fall into one of three categories:

- using resources with more eco-efficient technology;
- changing the patterns of consumption;
- using less of a given resource if there are cost-efficient and feasible means to do so.

In addition, the EU's Resources Strategy has to take account of Europe's interdependent trade relationship with many other regions outside Europe and its global trade and development policies. An EU resources strategy will therefore have to balance sustainable development goals with the development of the world trading system rules and principles of extra-territoriality.

In keeping with this global outlook, a life-cycle approach to the sustainable use of natural resources should cover the entire supply chain.

4) TIMELINE

- ✓ The publication of the Communication marks the first step in the development of the resources strategy, which should become operational in July 2005.

5) REFERENCES

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6) FOLLOW-UP WORK

- ✓ The strategy is being developed in an open and collaborative process involving stakeholders and the other EU institutions, including representatives of EU Member States and acceding and candidate countries.
- ✓ Two Stakeholder Meetings have so far been held (10 April 2002 and 14 November 2003).
- ✓ An Advisory Forum (chaired by the Commission) has been established to steer the policy development process on the resources strategy.
- ✓ Two Working Groups have been set up to cover the key issues. Working Group 1 is chaired by EuroGeoSurveys and Working Group 2 is chaired by ASSURRE.
- ✓ An informal workshop was held with the Member States in Leipzig on 25 - 27 February 2004. This workshop addressed issues related to the waste framework Directive 75/442/EEC and is a contribution to the development of the Thematic Strategy on the prevention and recycling of waste.

Thematic Strategy on the Prevention and Recycling of Waste

1) OBJECTIVE

To reduce the environmental impact of waste and waste treatment operations, using a comprehensive and life-cycle based approach to waste.

2) COMMUNITY MEASURES

- ✓ **Communication from the Commission to the Council and the European Parliament "Towards a thematic strategy on the prevention and recycling of waste" (COM(2003)301) Brussels, 27.5.2003**

3) SUMMARY

Waste prevention and recycling can reduce the environmental impact of resource use at three key stages: 1) the extraction of primary raw materials, 2) the transformation of primary raw materials in production processes, and 3) at the waste management phase, including in waste recycling.

Waste prevention and recycling is therefore increasingly being seen as part of a broader waste management strategy. This challenges policy makers to find the optimal recycling rate and the best combination of different approaches.

The 6th Environmental Action Programme calls for a number of measures to be adopted to further promote waste prevention and recycling, including specific targets on waste prevention and a thematic strategy on the recycling of waste. As a first step, the Commission adopted its Communication "towards a thematic strategy on the prevention and recycling of waste" in May 2003. The Communication adopts a life-cycle approach to resources management and takes the waste phase as its starting point.

The Communication initiated a consultation process, which was completed on 30 November 2003, and was followed by the launch of an Extended Impact Assessment. The final Strategy will be presented in July 2005.

With regards to **waste prevention**, the Communication invited a broad discussion on future targets and the instruments needed to achieve them. These include

- Identifying potentials for waste prevention;
- Exchange of good practices and experience with a view to defining how the EU may contribute to these;
- The role of the future chemicals policy as regards qualitative prevention of waste;
- Exploring how voluntary or mandatory waste prevention plans could contribute to waste prevention;
- Assessing the waste prevention potential of the directive on Integrated Pollution prevention and Control (IPPC).

For **waste recycling**, the Communication invited comments on options to promote recycling. These included

- The development of material based recycling targets in articulation with end-of-life products based targets;
- Getting the prices of the different waste treatment options right by using economic instruments, which could include tradable certificates, the co-ordination of national landfill taxes, promoting pay-as-you-throw schemes and making producers responsible for recycling;
- Ensuring recycling is both easy and clean. In some cases, implementation of EU waste law may have led to unnecessary burdens on the recycling industry. Such problems need to be identified and solved. Additionally, common approaches for recycling could ensure that recycling businesses apply the best available technology.

The Thematic Strategy on Waste responds to the plan of implementation agreed at the World Summit on Sustainable Development (Johannesburg, September 2002). This in turn builds on Agenda 21 and calls for further action to "*[p]revent and minimise waste and maximise reuse, recycling and use of environmentally friendly alternative materials, with the participation of government authorities and all stakeholders, in order to minimise adverse effects on the environment and improve resource efficiency*".

It also responds to the Commission's proposal for a European Union strategy for sustainable development (Göteborg, June 2001), which highlights the need to break the link between economic growth, the use of resources and the generation of waste.

4) TIMETABLE

- ✓ The publication of the Communication marks the first step in the development of the European Waste Strategy, which should become operational in July 2005.

5) REFERENCES

For further information, contact:

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6) FOLLOW-UP WORK

- ✓ The Strategy will be submitted to an extended impact assessment as part of the general approach of the Commission to using impact assessments to inform its decisions.
- ✓ The first stakeholder meeting took place in Brussels on 16 February 2004.
- ✓ This was followed by three one-day expert meetings held in April 2004, on:
 - a) Waste prevention;
 - b) Common standards for recycling facilities/ the extension of IPPC to recycling facilities; and
 - c) Aspects related to the Waste Framework Directive.
- ✓ An informal workshop was held with the Member States in Leipzig on 25 - 27 February 2004. This workshop addressed issues related to the waste framework Directive 75/442/EEC and was a contribution to the development of the Thematic Strategy on the prevention and recycling of waste.
- ✓ Stakeholders are invited to provide the Commission with data and information concerning the economic, environmental and social impacts of alternative options considered for inclusion in the final strategy (see <http://europa.eu.int/comm/environment/waste/form.htm>). The consultation will close on 24 September 2004.

Thematic Strategy for Soil Protection

1) OBJECTIVE

To develop a comprehensive European strategy for protecting soils against erosion and pollution

2) COMMUNITY MEASURES

- ✓ **Communication from the Commission to the Council and the European Parliament "Towards a thematic strategy for Soil Protection" (COM(2002)179) Brussels, 16.4.2002**
- ✓ **European Parliament resolution on the Commission communication 'Towards a Thematic Strategy for Soil Protection' (COM(2002) 179 - C5-0328/2002 - 2002/2172(COS))**

3) SUMMARY

Soil is a vital and largely non-renewable resource and has not been the subject of comprehensive EU action so far. The 6th EAP therefore calls for the development of an encompassing EU policy to protect soils against erosion and pollution. With this in mind, the Commission published a Communication "Towards a Thematic Strategy for Soil Protection" in April 2002.

The Communication sets out the steps towards achieving more complete protection of soils in the future. Full implementation of environmental legislation in the field of water and air pollution will make a significant contribution to soil protection as will the application of codes of good farming practice and the increasing use of agri-environmental measures beneficial to soil.

The Thematic Strategy on Soil, to be presented in July 2005, will consist of legislation on a Community information and monitoring system on soil, as well as a set of detailed recommendations for future measures and actions. The monitoring system will build on existing information systems and databases and ensure a harmonised way of establishing the prevailing soil conditions across Europe.

In addition, the Commission has planned a number of measures with a specific benefit for soil protection and waste management. These include

- A directive on mining waste³ together with a document outlining the best available techniques for the management of mining waste;

³ See "Management of waste from the extractive industry"

- The revision of the Sewage Sludge Directive, entailing a reduction in maximum permitted levels of contaminants in sludge;
- A directive on compost and other biowaste with the aim of controlling potential contamination and encouraging the use of certified compost.

In addition to these legislative initiatives, during 2003 the Commission presented a Communication on "Planning and Environment the territorial dimension", addressing rational land-use planning and taking into account the need for sustainable management of soil resources.

The European Environment Agency estimates that there are between 300,000 and 1.5 million contaminated sites in Europe. An additional task for the Commission will therefore be to establish with Member States a complete picture of the extent of soil contamination throughout the enlarged European Union so that best practice and remedial techniques can be identified and put into practice.

The Thematic Strategy on Soil responds to declarations adopted at the Rio Summit on Sustainable Development in 1992 and to the 1994 United Nations Convention to Combat Desertification. The EU Sustainable Development Strategy adopted in Gothenburg in 2001 also notes that soil loss and declining fertility are eroding the viability of agricultural land.

4) TIMELINE

- ✓ The publication of the Communication marks the first step in the development of the European Soil Strategy, which should become operational in July 2005.

5) REFERENCES

For further information, contact:

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6) FOLLOW-UP WORK

A wide-ranging consultation has been conducted by the Commission through the establishment of a number of groups:

- ✓ Stakeholders Information and Consultation meetings: ad hoc meetings, organised when required and where representatives from states and organisations participate together with individuals. The first meeting of this kind took place on 10 February 2003 in Brussels;
- ✓ Soil CIRCA Library and Discussion Forum: an electronic tool accessible to all internet users. The Library contains all background documents on the soil strategy as well as detailed information for meetings, groups and events. The Discussion Forum allows for exchange of information within a large "soil interest group";
- ✓ Advisory Forum and Working Groups: a total of six semi-permanent groups (Operational at least during 2003-2004), including representatives from Member States, Candidate Countries, EU Institutions and stakeholder organisations. They cover the following fields:
 - a) erosion
 - b) organic matter
 - c) contamination
 - d) monitoring
 - e) research
- ✓ Commission Interservice Working Group: a working group of European Commission officials who are representing the different EU policies of relevance to the soil strategy.
- ✓ Participants from the stakeholders meeting as well as other stakeholders, interested parties and colleagues are invited to prepare written statements with views and contributions (to be sent to env-soil-circa@cec.eu.int). No deadline.

Thematic Strategy on the Urban Environment

1) OBJECTIVE

To improve the environmental performance and quality of urban areas and to secure a healthy living environment for Europe's urban citizens.

2) COMMUNITY MEASURES

- ✓ **Communication from the Commission to the Council and the European Parliament "Towards a thematic strategy on the urban environment" (COM(2004)60) Brussels, 11.2.2004**

3) SUMMARY

In many cities, poor air quality, noise, heavy traffic, neglect of the built environment, poor environmental management and a lack of strategic planning have led to a lower quality of life, health problems and even premature deaths. Cities also have a considerable impact on the environment, producing large volumes of greenhouse gases, air pollution and waste, and consuming large amounts of resources.

Reducing these environmental impacts is vital, but these issues are often tackled separately. More can be achieved by promoting an integrated approach that takes the specific needs of urban areas into account.

The Thematic Strategy on the Urban Environment, which is due in summer 2005, is one of the key actions outlined in the Sixth EAP. It aims to develop "an integrated horizontal approach across Community policies and improve the quality of urban environment", in particular through the promotion of Local Agenda 21.

In February 2004, the European Commission published its interim Communication on the urban environment, which offers initial suggestions for developing a strong framework at the European level to provide a coordinated approach and more systematic support to towns and cities in their efforts to improve their environment.

The Communication argues that much of the knowledge and techniques needed to bring about significant improvements in environmental performance in urban areas is already known. It therefore focuses on achieving clear changes in urban areas rather than calling for further consideration of the issues.

The Communication identifies four cross-cutting themes: urban environmental management, urban transport, sustainable construction and urban design. With regards to waste management, and in response to the 6th EAP, the Communication makes broad reference to waste management as integral to the development of urban environmental management plans, and makes special references to the issue of **construction waste**.

Buildings and the built environment use half of the material taken from the Earth's crust and are the source of 450 MT construction and demolition waste per year (over a quarter of all waste produced). The interim Communication "Towards a thematic strategy on the prevention and recycling of waste" notes that volumes of construction and demolition waste are rising and that the nature of the waste is becoming more complex as the range of materials used in buildings grows. This limits the scope for reusing and recycling this waste (at present only about 28%), increasing the need for landfill sites and for further mineral extraction.

Consequently, changing the ways that buildings and the built environment are designed, constructed, renovated and demolished will significantly improve the environmental and economic performance of towns and cities and the quality of life of urban citizens.

The Communication follows extensive 2-year consultation with towns and cities, NGOs, business, the academic community and Member States. The end result is a proposal for the largest towns and cities in the EU 25 (the 500 or so towns and cities over 100,000 inhabitants) to develop and implement an urban environment management plan and an environmental management system to ensure its delivery. The Communication proposes that targets should be established at the local level.

The Strategy on the Urban Environment responds to the Plan of Implementation of the World Summit on Sustainable Development, which calls for measures to strengthen institutional arrangements on sustainable development, including at the local level, within the framework of Agenda 21. Waste and sustainable construction are two key issues to be addressed within this context, as they both contribute to and impact on quality of life in the urban environment.

The Communication highlights the need to increase the co-operation between different levels of government (local, regional and national), between different departments within local administrations, and between neighbouring administrations, as well as increasing citizen and stakeholder participation.

5) TIMELINE

- ✓ The publication of the Communication marks the first step in the development of the European Strategy on the Urban Environment, which should become operational in July 2005.

An Integrated Product Policy

1) OBJECTIVE

To reduce the environmental impacts from products throughout their life-cycle, while at the same time adopting a market driven approach that integrates the competitiveness concerns of business.

2) COMMUNITY MEASURES

- ✓ **European Commission Green Paper on Integrated Product Policy, Brussels, 07.02.2001**
- ✓ **Communication from the Commission to the Council and the European Council "Integrated Product Policy: Building on Environmental Life-Cycle Thinking" (COM(2003) 302) Brussels, 18.6.2003**

3) SUMMARY

The life-cycle of a product is often long and complicated. It can be traced from the extraction of natural resources, through their design, manufacture, assembly, marketing, distribution, sale and use, to their eventual disposal as waste. All these stages have a potential to impact on the environment in some way. They also involve a wide range of actors (e.g. designers, industry, marketing people, retailers and consumers).

Existing environmental product-related policies have tended to focus on large point sources of pollution, such as industrial emissions and waste management issues, rather than the products themselves and how they contribute to environmental degradation at other points in their life cycles. Measures have also tended to look at the chosen phases in isolation.

Consequently, the new Integrated Product Policy (IPP), developed in consultation with industry, aims to target the best opportunities for improvement by taking all the phases and actors involved in the life of a product into account and using a variety of voluntary and mandatory tools.

In June 2003, the Commission adopted a Communication on the Integrated Product Policy (IPP), outlining its strategy for reducing the environmental impact caused by products. Some of the problems it identifies include

- The increase in the quantity of products being produced;
- The greater variety of products and services being offered;

- The creation of new products through innovation;
- More products being traded globally, meaning an increase in transport-related impacts;
- The increasing complexity of products, requiring greater expertise to improve environmental performance at the design stages;
- A greater number of actors being involved in the life-cycle of a service or product.

The Integrated Product Policy represents a new approach and puts emphasis on three dimensions:

- It advocates "life-cycle thinking": i.e. pollution-reduction measures are identified by assessing the whole of a product's life-cycle, from cradle to grave. In so doing, the best points for intervention are identified and environmental impacts are not simply shifted from one phase of the life-cycle to another;
- A flexible, market-driven approach is taken to developing policy measures (e.g. taxes, product standards and labelling, and voluntary agreements). Measures are chosen according to their effectiveness with regard to a given product or service;
- The Policy emphasises the need to involve and motivate all stakeholders to take action in their sphere of influence in order to reduce the environmental impacts of products;
- A strategy of 'continuous improvement' is applied to all stages of the product life cycle. Rather than setting a precise threshold to be attained, IPP encourages companies to set their own pace and focus on the most cost efficient improvements.

The Communication sets out a two-pronged approach to the implementation of IPP:

- a) Improving the tools that already exist to make them more product-focused. These include environmental management systems (such as the EU Eco-Management and Audit Scheme EMAS), environmental labelling and the provision of life-cycle information. The Policy will also improve co-ordination between the different instruments to better exploit their synergies;
- b) Taking action to improve the environmental performance of products that have the greatest potential for environmental improvement.

The application of IPP requires EU-wide action, as products can move freely within the Internal Market, and some of their negative environmental impacts are of European or international concern, such as the emission of greenhouse gases. In addition, many of the existing policy instruments dealing with products are set at European level.

The IPP Communication is part of the Commission's efforts to achieve the goals set down in the EU's 6th EAP and to fulfil the commitments made by the EU at the World Summit on Sustainable Development in Johannesburg. It will also be a key part of the implementing measures for the Thematic Strategy on the Sustainable Use of Resources and that on Prevention and Recycling of Waste. It is closely linked to the forthcoming Environmental Technologies Action Programme.

4) TIMELINE

- ✓ The Commission's Communication on an Integrated Product Policy was adopted on 18 June 2003.

5) REFERENCES

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6) FOLLOW-UP WORK

- ✓ The Commission is currently holding "IPP Regular meetings" with Member States, countries from the European Economic Area and stakeholders. Their purpose is to monitor and promote the implementation of the Commission's Communication on IPP. The first meeting was held on the 24th of February 2004.
- ✓ Two Pilot projects were launched in June 2004 to demonstrate how IPP can work in practice. They focus on the environmental life-cycles of two products suggested by stakeholders: a mobile phone (Nokia) and a teak garden chair (Carrefour). The exercise will last for approximately one year and the Commission is inviting stakeholders to participate in the projects, either by submitting information on the products in question, or helping to identify and implement solutions. (Email orsolya.csorba@cec.eu.int by 15 September 2004).

- ✓ Planned future activities include: a handbook on Life Cycle Assessment (2005); a discussion document on product design obligations for producers (2005); the development of a Commission action programme for greening its procurement (2006); and the identification of and action around a first set of products with the greatest potential for environmental improvement (2007).

Integrated Pollution Prevention and Control (IPPC)

1) OBJECTIVE

To achieve integrated prevention and control of pollution arising from industrial activities, by preventing or reducing emissions in the air, water and land, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole.

2) COMMUNITY MEASURES

- ✓ **Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control**
- ✓ **Communication from the Commission "On the Road to Sustainable Production: Progress in implementing Council Directive 96/61/EC concerning integrated pollution prevention and control (COM(2003) 354), Brussels, 19.6.2003**

3) SUMMARY

Industrial production processes still account for a considerable share of the overall pollution in Europe, particularly with regard to greenhouse gases, acidifying substances, volatile organic compounds and waste. The Integrated Pollution Prevention and Control (IPPC) Directive therefore represents the Community's strategy to minimise industrial pollution from various point sources throughout the European Union. It does this via a set of rules by which industrial installations apply for permits for discharge of waste to air, water and soil. To be allowed to operate, all installations covered by Annex I of the Directive are obliged to obtain these permits from their Member State authorities.

A key element of the Directive is that allocation of permits is based on the concept of Best Available Techniques (or BAT) for pollution and waste management, which is defined in Article 2 of the Directive. In many cases, BAT means quite radical and sometimes costly environmental improvements. Consequently, the European installations covered by the Directive have until August 2007 to adapt to the requirements of the Directive.

The Directive is founded on the goal of preventing, reducing and as far as possible eliminating pollution by giving priority to intervention at source and ensuring prudent management of natural resources. It emphasises the 'polluter pays' principle and the principle of pollution prevention.

The Directive responds to the goals of the 5th EAP, which made integrated pollution control a priority. Although prior legislation existed on the combating of air pollution and the prevention or minimisation of the discharge of dangerous substances into water, there existed no comparable Community legislation aimed at preventing or minimising emissions into soil.

Importantly, by adopting an integrated approach, the Directive is designed to avoid a shifting of pollution between air, water and soil as a result of competing pieces of legislation; and to discourage environmental dumping, where companies move from one part of the European Union to another where environmental requirements are less strict.

Specifically, the Directive requires that installations operate in accordance with the following criteria:

- (a) All the appropriate preventive measures are taken against pollution, in particular through application of the best available techniques;
- (b) No significant pollution is caused;
- (c) Waste production is avoided in accordance with Council Directive 75/442/EEC of 15 July 1975 on waste; where waste is produced, it is recovered or, where that is technically and economically impossible, it is disposed of while avoiding or reducing any impact on the environment;
- (d) Energy is used efficiently;
- (e) The necessary measures are taken to prevent accidents and limit their consequences;
- (f) The necessary measures are taken upon definitive cessation of activities to avoid any pollution risk and return the site of operation to a satisfactory state.

The Directive covers most industrial installations except those used for research, development and testing of new products and processes. It includes industrial facilities used for the purposes of waste management, specifically

- Installations for the disposal or recovery of hazardous waste, with a capacity exceeding 10 tonnes per day;
- Installations for the incineration of municipal, with a capacity exceeding 3 tonnes per hour;
- Installations for the disposal of non-hazardous waste, with a capacity exceeding 50 tonnes per day;
- Landfills receiving more than 10 tonnes per day or with a total capacity exceeding 25 000 tonnes, excluding landfills of inert waste.

In its June 2003 Communication on the IPPC Directive, the Commission acknowledges some limitations to the way the waste management sector is covered by the Directive. It proposes that the following options be considered:

- Greater specification with regards to the distinction made between disposal and recovery operations;
- An emphasis on ensuring a high level of environmental protection for waste management facilities in the EU in order to avoid the risk of eco-dumping in cross-border shipments of waste;
- The inclusion in the scope of the Directive all waste management installations with a capacity exceeding appropriate thresholds;
- For waste incinerators, an alignment of Annex I of the Directive with the scope of the new Waste Incineration Directive.

4) DEADLINE FOR IMPLEMENTATION OF THE LEGISLATION IN THE MEMBER STATES

15 'old' Member States – 31.10.1999

10 'new' Acceding States – 1.5.2003 (Date of accession).

To date, some Acceding States have incomplete legislation that still needs to be improved.

Most installations have until August 2007 to comply with the Directive. However, as from October 1999, the Directive applies to all new installations, as well as existing installations, that intend to carry out changes that may have significant negative effects on human beings or the environment.

Some EU countries already have BAT-based permitting systems for all installations.

Poland, Slovenia, Slovakia and Latvia have received an extra transition period (until 2008-2012) for meeting the requirements on BAT in certain specified existing installations. Bulgaria has also been granted certain transition periods and Romania has requested this too.

5) DATE OF ENTRY INTO FORCE (if different from the above)

- ✓ 14 August 1996

6) REFERENCES

Official Journal L 257, 10/10/1996 P. 0026 - 0040

7) FOLLOW-UP WORK

- ✓ The European IPPC Bureau has been created to co-ordinate the exchange of technical information on best available techniques under the IPPC Directive 96/61/EC. It is also responsible for creating BAT reference documents (BREFs) to assist the competent authorities of Member States when determining conditions for IPPC permits. The BREFs inform the relevant decision makers about what may be technically and economically available to industry in order to improve their environmental performance and consequently improve the whole environment. All BREFs will be completed by the end of 2005, but several are now finalised and are downloadable from the BREF site of the IPPC Bureau and available on CD. While the BREFs are intended to assist the licensing authorities, the final decision should still lie with these authorities⁷.
- ✓ The Directive further provides for the setting up of a European Pollutant Emission Register (EPER) to provide policymakers and the public with better information about the amount of pollution that different installations are responsible for. The Register can now be accessed at <http://www.eper.cec.eu.int>.

⁷ Article 9 of the Directive requires that (a) the technical characteristics of the installation, (b) its geographical location and (c) the local environmental conditions be taken into account. However, Article 18 of the Directive also states that there are cases where common and fixed EU emission limit values are justified.

Framework Directive on Waste

1) OBJECTIVE

To set up a system for the co-ordinated management of waste within the Community in order to limit waste production.

2) COMMUNITY MEASURES

✓ **Council Directive 75/442/EEC of 15 July 1975 on waste**

Amended by the following measures:

- ✓ **Council Directive 91/156/EEC of 18 March 1991**
- ✓ **Council Directive 91/692/EEC of 23 December 1991**
- ✓ **Commission Decision 96/350/EC of 24 May 1996**
- ✓ **Council Directive 96/59/EC of 16 September 1996**

3) SUMMARY

The measures contained in the Framework Directive on Waste apply to all substances or objects which the holder disposes of or is obliged to dispose of in pursuance of the national provisions in force in the Member States. They do not apply to radioactive waste, mineral waste, animal carcasses and agricultural waste, waste water, gaseous effluents and wastes that are subject to specific Community Regulations.

The Directive requires Member States to

- prohibit the uncontrolled discarding, discharge and disposal of waste;
- promote the prevention, recycling and conversion of wastes with a view to their reuse;
- inform the Commission of any draft Regulations which may involve the use of products that give rise to technical difficulties or excessive disposal costs, thereby impacting on
 - a) the amounts of waste reaching disposal;
 - b) the treatment of waste for the purpose of their recycling or their reuse;
 - c) the use of energy deriving from certain wastes;
 - d) the use of natural resources which may be replaced by reclamation materials;
- ensure that all holders of wastes hand them over to a private or public collection agency or to a disposal company, or else shall themselves conduct the disposal in compliance with the requirements of the current measures.

The measures provide for co-operation between the Member States with a view to setting up an integrated, adequate network of disposal installations (taking account of the best technologies available), which would enable the Community itself to dispose of its wastes and the Member States individually to work towards that aim. Priority is to be given to installations that are close-by and guarantee a high level of environmental protection.

Companies or establishments treating, storing or dumping waste for another party must obtain an authorization from the competent authority, which concerns, in particular, the types and quantities of waste to be treated, the general technical requirements and the precautions to be taken. The competent authorities may routinely check compliance with those authorization conditions. The same monitoring by the competent authority is reserved for transport, collection, storage, dumping or treatment companies working on their own account or for third parties.

Upgrading centres and companies disposing of their own wastes have to get an authorization.

The cost of disposal of waste must be borne by its holder, who will hand over his waste to a collector or company and/or else by earlier holders or by the producer who has generated the waste in accordance with the "polluter pays" principle.

The competent authorities appointed by the Member States in order to implement the current measures shall draw up at least one management plan governing, in particular, the types, quantities and origins of the wastes to be upgraded or disposed of, the general technical requirements, all of the special arrangements concerning specific wastes, and the appropriate locations and installations for the disposal.

4) DEADLINE FOR IMPLEMENTATION OF THE LEGISLATION IN THE MEMBER STATES

- ✓ Directive 75/442/EEC: 18.07.1977
- ✓ Directive 91/156/EEC: 01.04.1993
- ✓ Directive 91/692/EEC: 01.01.1995
- ✓ Directive 96/59/EC: 16.03.1998

5) DATE OF ENTRY INTO FORCE (if different from the above)

- ✓ Decision 96/350/EC: 28.05.1996
- ✓ Directive 96/59/EC: 16.09.1996

6) REFERENCES

Official Journal L 194, 25.07.1975

Official Journal L 78, 26.03.1991

Official Journal L 377, 31.12.1991

Official Journal L 135, 06.06.1996

Official Journal L 243, 24.09.1996

7) IMPLEMENTING MEASURES

- ✓ **Directive 93/86/EEC - Official Journal L 264, 23.10.1993** Commission Directive of 4 October 1993 adapting to technical progress Council Directive 91/157/EEC on batteries and accumulators containing certain dangerous substances.
- ✓ **Decision 94/3/EC - Official Journal L 5, 07.01.1994** Commission Decision of 20 December 1993 establishing a list of wastes pursuant to Article 1a of Council Directive 75/442/EEC on waste.
- ✓ **Communication - COM(97) 23 final** Commission communication to the Council and Parliament of 27 February 1997 concerning the application of Directives 75/439/EEC, 75/442/EEC, 78/319/EEC and 86/278/EEC on waste management. In this document the Commission notes a certain reticence on the part of the Member States to implement the provisions of Directive 75/442/EEC. Some Member States have not even transposed the Directive and most have failed to communicate their national transposition measures to the Commission.
- ✓ **Communication - COM(1999) 752 final** Commission report of 10 January 2000 to the Council and the European Parliament on the implementation of Community waste legislation for the period 1995-1997 (Directives 75/442/EEC, 91/689/EEC, 75/439/EEC and 86/278/EEC). In this document the Commission notes that the implementation of Directive 75/442/EEC is not satisfactory. The majority of Member States have not correctly transposed the Directive, while others (Greece and Spain) have failed to communicate their national transposition measures to the Commission.
- ✓ **Decision 2000/532/EC - Official Journal L 226, 06.09.2000** Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste. This Decision establishes a single Community list which integrates the list of dangerous waste laid down in Decision 94/904/EC and that of waste laid down in Decision 94/3/EC. It repeals these two Decisions as from 1 January 2002.

- ✓ **Decision 2001/118/EC - Official Journal L 47, 16.02.2001**
Commission Decision of 16 January 2001, modifying Decision 2000/532/EC as regards the list of wastes.
- ✓ **Decision 2001/119/EC - Official Journal L 47, 16.02.2001**
Commission Decision of 22 January 2001 amending Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.
- ✓ **Decision 2001/573/EC - Official Journal L 203, 28.07.2001** Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes.

Batteries and accumulators

1) OBJECTIVE

To create an EU-wide framework for national battery collection and recycling schemes that achieves the fullest recovery possible of the various metals used in batteries and prevents spent batteries ending up in incinerators or landfills.

2) COMMUNITY MEASURES

- ✓ **Council Directive 91/157/EEC of 18 March 1991 on batteries and accumulators containing certain dangerous substances**
- ✓ **Commission Directive 93/86/EEC of 4 October 1993 adapting to technical progress Council Directive 91/157/EEC on batteries and accumulators containing certain dangerous substances**
- ✓ **Commission Directive 98/101/EC of 22 December 1998 adapting to technical progress Council Directive 91/157/EEC on batteries and accumulators containing certain dangerous substances**
- ✓ **Commission Proposal for a Directive of the European Parliament and of the Council on Batteries and Accumulators and Spent Batteries and Accumulators COM(2003) 723 final 2003/0282 (COD), Brussels, 21.11.2003 [SEC(2003)1343]**

3) SUMMARY

Covering only 7% of all portable batteries placed on the EU market annually, existing EU legislation fails to adequately control the risks posed by batteries in the waste stream and to create a homogeneous framework for battery collection and recycling. Its limited scope has led to inefficiencies in national battery collection and recycling schemes, as well as confusion among consumers as to what to recycle and what not. The result is that today almost half of all portable batteries sold (45% in the EU-15 in 2002) still go to landfilling or incineration.

Consequently, on 21 November 2003, the European Commission adopted a Proposal for a new Battery Directive, which will require the collection and recycling of all batteries placed on the EU market. It aims to prevent spent batteries ending up in incinerators or landfills and therefore to recover the various metals used in batteries. The collection and recycling of these valuable metals will also contribute substantially to saving natural resources in line with the new thematic strategy on the sustainable use of natural resources.

The Proposal sets out the following measures as part of a 'closed-loop system' whereby Member States have to take all necessary measures to avoid the final disposal of spent batteries and to achieve a high level of collection and recycling:

- A ban on landfilling/incineration of automotive and industrial batteries;
- A collection target for portable batteries of 160 grams (4-5 batteries) per inhabitant per year, using national collection systems that allow consumers to return spent portable batteries free of charge;
- An additional target for the collection of portable nickel-cadmium batteries (80% of all portable nickel-cadmium batteries generated annually in each Member State). This includes the amount found in the municipal solid waste stream. Member States will thus be obliged to monitor the quantities of portable nickel-cadmium batteries discarded in the municipal solid waste stream. On the basis of these monitoring results, the Commission may also, if necessary, propose additional risk management measures in the future;
- Recycling targets of 100% for automotive and industrial batteries and at least 90% for portable batteries;
- Recycling efficiency targets for the recycling of lead-acid batteries (all the lead and 65% of the average weight of those batteries) and the recycling process of nickel-cadmium batteries (all the cadmium and at least 75% of the average weight of those batteries). For other batteries, the recycling process should recover 55% of the average weight.

In order to contribute to the proper functioning of the internal market, treatment operations taking place abroad will count for achieving the recycling requirements for the exporting Member State.

For all types of batteries, the producers would be responsible for costs related to the collection, treatment and recycling. For spent portable batteries, the collection costs could be shared with the national, regional or local authorities. For spent industrial and automotive batteries, producers could conclude agreements on financing with their users.

Member States will be required to keep a register with all battery producers who will have to provide financial guarantees that they are able to manage spent batteries prior to placing their products on the market. Producers are allowed to place a "visible fee" on new battery sales for a maximum of four years after implementation.

The new Proposal meets the objectives set by the 6th EAP as well as Directive 2002/96 on waste electrical and electronic equipment which calls for the need to revise the current EU legislation on batteries and accumulators as soon as possible.

In line with the Better Regulation Package, the new Proposal repeals the existing Directives on batteries ((Directive 91/157/EEC, Directive 93/86/EEC and Directive 98/101/EC) and replaces them with one single legal instrument.

Current legislation provides measures for the upgrading and controlled disposal of spent batteries and accumulators. Member States must prohibit the marketing of batteries and accumulators containing a certain percentage of mercury (0.0005 % of mercury by weight) and are required to draw up programmes to reduce the heavy metal content of batteries and accumulators.

Member States must also encourage the separate collection of batteries; while batteries and accumulators must be marked in such a way as to indicate separate collection, recycling requirements and heavy metal content.

4) TIMELINE

- ✓ The Commission adopt the Proposal for a new Battery Directive on 21 November 2003.
- ✓ The Committee of the Regions and the European Economic and Social Committee both adopted their opinions on the Proposal in April 2004. In the same month, the European Parliament adopted its first reading. The next step in the co-decision procedure will be the adoption of a common position by the Council.
- ✓ Every three years, starting from transposition of the new Directive on Batteries, the Commission will evaluate the need to take further risk management measures on the basis of the national monitoring results.

5) REFERENCES

Official Journal L 78, 26.03.1991
Official Journal L 264, 23.10.1993
Official Journal L 1, 05.01.1999

The factors operating at the production and supply level identified by the Commission are:

- Structural aspects, notably the increase in the cost of recycled products, caused by the growth of domestic as opposed to industrial waste;
- Technical aspects affecting the cost of collecting and sorting, such as the complexity of products and insufficient information on them, which impedes their rapid dismantling.

At the demand level, the competitiveness of recycling activities is hampered by:

- The lack of interest on the part of processing industries for recycled raw materials on account of their technical features, limited possibilities for their use and the negative image associated with them;
- The absence of pertinent industrial standards or the tendency for some standards or specifications to ignore or to discriminate against recycled materials or products.

Finally, the Commission identifies the following factors affecting the functioning of the markets and the business framework:

- A lack of transparency, revealed by the almost total absence of indicators and statistics, and market fragmentation. This fragmentation is caused to a large extent by the lack of technical standards or common testing methods;
- A lack of consistency in the way in which existing Community regulations are applied (in particular, those relating to the definition, classification and transfer of waste), which contribute to the fragmentation and distortion of the market.

On the basis of this analysis, the Commission identifies four types of action which could increase the competitiveness of recycling companies and boost activities in this sector: standardisation, the development of the market and of its transparency, measures in favour of innovation and regulatory measures.

Among actions in the area of standardisation, the Commission proposes:

- The review of industrial standards to ensure that design favours the aptitude of products for recycling and to eliminate obstacles to the use (by private operators and for public contracts) of secondary raw materials;
- The substitution of hazardous substances by other substances in products;
- The harmonisation of specifications and testing methods for recycled products;
- The development of marking systems aimed at facilitating the identification of substances and at aiding consumers to separate types of waste.

The following actions could help to develop the market and improve its transparency:

- The creation of exchanges for recyclable waste and secondary raw materials;
- A study of the savings to be made when using secondary raw materials throughout the life cycle of a product;
- Improvement of the knowledge of markets through the compilation of statistics and studies of long-term trends for supply and demand.

Innovation can be stimulated by the following measures:

- Targeted use of the 4th and 5th Framework Programmes for research;
- Dissemination of research results and examples of good practices or national practices;
- Development of quality management strategies in recycling businesses;
- Use of the Community training programmes.

The Commission advocates the following regulatory measures:

- Increased transparency of the regulatory framework and better supervision of its transposition;
- Simplification of Community legislation (in particular administrative procedures) and its correct application;
- Increased use of market-based instruments (taxes, duties and charges) and regulatory instruments (regulation of the landfilling of waste), to ensure that recycling is a competitive solution compared with other methods of waste disposal, such as landfilling;
- The drawing up of new regulatory measures to reduce the volume of dangerous substances, to increase the amount of recycled materials in some specific products and to encourage selective collection and the composting of biodegradable waste. The Commission will also study whether specific waste streams with a high quantity of recyclable waste or a high content of dangerous substances should be targeted through legislation.

The Commission plans to organise a Forum on Recycling, which will bring together all interested parties in the public and private sector, to examine various ways of increasing the competitiveness of the recycling industry. The Forum will also evaluate whether it is useful and feasible to set up a European Recycling Centre.

4) REFERENCES

COM(98) 463 final
Not published in the Official Journal

Controlled management of hazardous waste

1) OBJECTIVE

The management, recovery and correct disposal of hazardous waste.

2) COMMUNITY MEASURES

- ✓ **Council Directive 91/689/EEC of 12 December 1991 on hazardous waste**

Amended by

- ✓ **Commission Directive 94/31/EC of 27 July 1994**

3) CONTENTS

A list of the hazardous wastes covered by the Directive is to be drawn up on the basis of the categories, constituents and properties set out in the Annexes to the Directive by 12 June 1993. Domestic waste is not covered by the Directive.

All waste (hazardous or not) is subject to Directive 75/442/EEC. Hazardous waste is also subject to Directive 91/689/EEC.

The Directive requires that Member States

- ensure that hazardous waste is recorded and identified;
- ensure that different categories of hazardous waste are not mixed and that hazardous waste is not mixed with non-hazardous waste, except where the necessary measures have been taken to safeguard human health and the environment.

Any establishment or undertaking which carries out disposal operations must obtain a permit. This applies also in the case of operations which may lead to recovery. However, the permit requirement may be waived in the latter case if the method of recovery is such that there is no danger to human health or the environment, or if the Member State has adopted general measures laying down conditions for various methods of recovery, provided the conditions have been communicated to the Commission.

Establishments or undertakings which carry out disposal operations or operations which may lead to recovery and producers of hazardous waste are subject to periodic inspections covering in particular the origin and destination of the waste.

Transporters, producers, establishments and undertakings keep a record of their activities and make this information available to the competent authorities designated by each State.

The competent authorities are required to publish plans for the management of hazardous waste, which are to be evaluated by the Commission.

In case of emergency or grave danger, Member States may derogate temporarily from the Directive in order that hazardous waste should not constitute a danger to the population or the environment. They must inform the Commission of any such derogations.

The annexes to the Directive can be adapted to scientific and technical progress in accordance with the procedure referred to in Article 18 of Directive 75/442/EEC.

4) REFERENCES

Official Journal L 377, 31.12.1991

Official Journal L 168, 02.07.1994

5) COMMISSION IMPLEMENTING MEASURES

- ✓ **Decision 94/904/EC - Official Journal L 356, 31.12.1994**
Commission Decision of 22 December 1994 the Council adopted Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.
- ✓ **Decision 96/302/EC - Official Journal L 116, 11.05.1996**
Commission Decision of 17 April 1996 establishing a format in which information is to be provided pursuant to Article 8(3) of Council Directive 91/689/EEC.
- ✓ **Decision 97/622/EC - Official Journal L 256, 19.09.1997**
Commission Decision of 27 May 1997 concerning questionnaires for Member States reports on the implementation of certain Directives in the waste sector (implementation of Council Directive 91/692/EEC).
- ✓ **Communication - COM(1999) 752 final**
Commission report of 10 January 2000 to the Council and the European Parliament on the implementation of Community waste legislation for the period 1995-1997 (Directives 75/442/EEC, 91/689/EEC, 75/439/EEC and 86/278/EEC). In this report the Commission notes that most of the Member States have not correctly transposed the Directive on hazardous waste, while others have not drawn up a list to supplement the one already established by the Commission detailing hazardous wastes.

- ✓ **Decision 2000/532/EC - Official Journal L 226, 06.09.2000**
Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste. This Decision establishes a single Community list which integrates the list of dangerous waste laid down in Decision 94/904/EC and the list of waste laid down in Decision 94/3/EC. It repeals these two Decisions as from 1 January 2002.

- ✓ **Decision 2001/573/EC - Official Journal L 203, 28.07.2001**
Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes.

Disposal of waste oil

1) OBJECTIVE

To promote the safe collection and disposal of waste oils.

2) COMMUNITY MEASURES

- ✓ **Council Directive 75/439/EEC of 16 June 1975 on the disposal of waste oil**

Amended by

- ✓ **Council Directive 87/101/EEC of 22 December 1986**
Council Directive 91/692/EEC of 23 December 1991

3) CONTENTS

These Directives apply to any mineral-based lubrication or industrial oils which have become unfit for the use for which they were originally intended.

Member States must ensure that waste oils are collected and disposed of (by processing, destruction, storage or tipping above or under ground).

They must give priority to the processing of waste oils by regeneration, i.e. by refining.

Where this process is not used, other methods may be considered: combustion, destruction, storage or tipping. The Directives stipulate the conditions under which this must occur; in particular, they allow undertakings to collect and/or dispose of waste oils.

The following are prohibited

- Any discharge into inland surface water, ground water, territorial sea water and drainage systems;
- Any deposit and/or discharge harmful to the soil and any uncontrolled discharge of residues resulting from the processing of waste oils;
- Any processing causing air pollution which exceeds the level prescribed by existing provisions.

Consequently, any undertaking which collects waste oils must be subject to registration and national supervision, possibly including a system of permits. And undertaking which disposes of waste oils must obtain a permit.

The Directives do not authorise the mixing of waste oils with polychlorinated biphenyls and polychlorinated terphenyls (PCBs and PCTs) or with toxic and dangerous wastes. Any oil containing PCBs or PCTs or containing toxic or dangerous products must, without exception, be destroyed.

Member States may carry out public information and promotional campaigns to ensure that waste oils are properly collected and stored.

Member States may adopt more stringent measures than those provided for in the Directives.

Every three years Member States must produce reports on the implementation of the Directives, to be used by the Commission in drafting a Community report. The first report covers the period 1995-97 inclusive.

4) COMMISSION IMPLEMENTING MEASURES

- ✓ **Communication - COM(97) 23 final** Commission communication of 23 February 1997 to the Council and the European Parliament concerning the application of Directives 75/439/EEC, 75/442/EEC, 78/319/EEC and 86/278/EEC on waste management. The Commission notes that Directive 75/439/EEC has only been partly applied in the Member States, and that the latter have not wished to give priority to regenerating waste oils rather than burning them.
- ✓ **Communication - COM(1999) 752 final** Commission Report of 10 January 2000 to the Council and the European Parliament on the implementation of Community waste legislation for the period 1995-1997 (Directives 75/442/EEC, 91/689/EEC, 75/439/EEC and 86/278/EEC). The Commission notes that the hierarchy of principles for waste oil management (regeneration, combustion and safe destruction/tipping) has not been respected. Of the eleven countries which submitted a report, only Germany, Luxembourg and France are complying with the principle of regeneration. Generally speaking, there has been an increase in the use of regeneration.

Removal and disposal of disused offshore oil and gas installations

1) OBJECTIVE

To protect the environment by reducing pollution from disused offshore oil and gas installations.

2) COMMUNITY MEASURE

- ✓ **Communication from the Commission to the Council and the European Parliament of 18 February 1998 on removal and disposal of disused offshore oil and gas installations**

3) CONTENT

The debate about the disposal of redundant offshore oil and gas installations was re-opened in 1995 with the Brent Spar "affair". Shell had decided, with the authorisation of the UK Government, to sink their oil storage buoy Brent Spar at a deep water site in the North Atlantic.

This decision was strongly criticised by the public because of the damage to the marine environment. In the Ministerial Declaration following the North Sea Conference, which was being held at the same time, the majority of the Ministers present (with the exception of the UK and Norwegian Ministers) called for a complete ban on the disposal at sea of such installations.

Following a consumer boycott of Shell products in several Member States, the company finally abandoned its plan and decided to dismantle the structure of the installation and reuse the hull as part of a quay extension in Norway. This one-off solution has not however provided a general answer for the 600 other installations of this type in European waters, most of them in British and Norwegian waters.

The disposal of disused installations was due to be discussed again at the Ministerial Meeting of the OSPAR Convention to be held in Portugal in July 1998 (OSPAR: Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, signed in Oslo on 15 February 1972, succeeded by the Convention for the Protection of the Marine Environment of the North-East Atlantic, signed in Paris on 9 September 1992).

At the June 1995 North Sea Conference, the Commission stated that it was in favour of recycling and reusing offshore installations. Accordingly the Commission signed the Ministerial Declaration calling for this type of disposal and invited the contracting parties to the Oslo and Paris Conventions to implement this type of disposal by 1997.

At a subsequent meeting, the OSPAR Commission decided on a moratorium on disposal of oil and gas installations at sea pending the adoption of a final decision.

In November 1996 the Commission commissioned a study into the technical, environmental and economic aspects of the removal and disposal of such installations, which reached the following conclusions:

As regards large concrete installations:

- There is a lack of knowledge as to the technical aspects of their disposal;
- There is no need to dispose of them completely from an environmental point of view;
- It is impossible to estimate the cost of their disposal.

For the remaining installations with steel structures, it found that complete disposal is technically feasible, including that

- It is economically justified;
- It can be undertaken in complete safety;
- The residues of toxic or hazardous substances can be reduced;
- The steel can be recycled on land.

Removal and disposal costs are met by the owners of the installations, i.e. the oil and gas companies. Some of this expenditure is tax deductible. The overall cost of towing all platforms to shore for recycling has been estimated at ECU 2 billion over 25 years, or on average ECU 80 million per year. The impact of such a decision on the overall production costs of oil and gas would in general terms be negligible.

The following international texts cover disused offshore oil and gas installations:

- Geneva Convention on the Continental Shelf 1958;
- United Nations Convention on the Law of the Sea 1982;
- London Convention 1972;

- International Maritime Organisation Guidelines and Standards for the Removal of Offshore Installations and Structures on the Continental Shelf 1989;
- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989;
- Oslo (1972) and Paris (1992) Conventions;
- Helsinki Convention on the Protection of the Marine Environment in the Baltic Area 1992;
- Barcelona Convention for the Protection of the Mediterranean Sea against Pollution 1976.

There is however no specific common legal framework in this area. Moreover, these Conventions deal only with minimum standards. Individual States may impose more stringent conditions.

Current negotiations with a view to adopting specific legislation are being held within OSPAR. As contracting parties to the OSPAR Convention may choose to opt out of decisions taken under it, a consensus is therefore necessary.

A preliminary draft decision was prepared for the July 1998 meeting. This included the following proposals:

- Adoption of a prohibition of sea disposal of such installations as a general principle (reverse list);
- All disused installations should be dismantled and brought to land for recycling and safe disposal, with the exception of certain installations authorised on a case by case basis;
- Large installations cannot be dismantled on land as there are currently no technologies to do this;
- Establishment of consultation procedures with contracting parties and interested organisations for installations which have to be disposed of at sea;
- Installations put into service after 1 January 1998 must be completely removed and recycled on land when they are decommissioned, insofar as such an operation is feasible and can be carried out in complete safety;
- Adoption of a clause providing for a regular review of the decision to take account of scientific and technological advances;
- Clear indication of responsibilities for installations on the sea bed, to determine who bears the financial consequences of any future damage caused by those installations.

4) REFERENCES

- ✓ **COM(98) 49 final**
Not yet published in the Official Journal

Management of end-of-life vehicles

1) OBJECTIVE

To prevent waste from end-of-life vehicles and promote the collection, re-use and recycling of their components to protect the environment.

2) COMMUNITY MEASURES

- ✓ **Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of-life vehicles**
- ✓ **Commission Decision 2001/753/EC concerning a questionnaire for Member States reports on the implementation of Directive 2000/53/EC of the European Parliament and of the Council on end-of-life vehicles**
- ✓ **Commission Decision 2002/151/EC on minimum requirements for the certificate of destruction issued in accordance with Article 5(3) of Directive 2000/53/EC of the European Parliament and of the Council on end-of-life vehicles**
- ✓ **Commission Decision 2002/525/EC amending Annex II of Directive 2000/53/EC of the European Parliament and of the Council on end-of-life vehicles**
- ✓ **Commission Decision 2002/204/EC on the waste disposal system for car wrecks implemented by the Netherlands**
- ✓ **Commission Decision 2003/138/EC establishing component and material coding standards**

3) SUMMARY

Every year, end of life vehicles (ELV) generate between 8 and 9 million tonnes of waste in the Community which should be managed correctly. In 1997, the European Commission adopted a Proposal for a Directive which aimed at making vehicle dismantling and recycling more environmentally friendly, set clear quantified targets for reuse, recycling and recovery of vehicles and their components, and pushed producers to manufacture new vehicles also with a view to their recyclability. This legislation was officially adopted by the European Parliament and Council in September 2000.

The Directive was a response to the 5th Community action programme in the field of the environment and sustainable development, which stressed the need to modify both methods of production and development and consumer behaviour. With regards to waste, this comprised a two-fold strategy:

- Avoiding waste by improving product design;
- Increasing the recycling and re-use of waste.

The requirements laid down in this Directive should reduce the disposal of waste from vehicles and improve the environmental performance of all the economic operators involved in the life cycle of vehicles, in particular those directly involved in the treatment of end-of life vehicles.

The Directive defines an end-of-life vehicle as any type of vehicle which is waste within the meaning of Directive 75/442/EEC. The scope of the Directive therefore covers:

- Any end-of-life vehicle designated as category M1 or N1 (as defined in section A of Annex II to Directive 70/156/EEC);
- Two- or three-wheel motor vehicles and their components.

Waste prevention is the priority objective of the Directive. To this end, it stipulates that vehicle manufacturers and material and equipment manufacturers must:

- Endeavour to reduce the use of hazardous substances when designing vehicles;
- Design and produce vehicles which facilitate the dismantling, re-use, recovery and recycling of end-of-life vehicles;
- Increase the use of recycled materials in vehicle manufacture;
- Ensure that components of vehicles placed on the market after 1 July 2003 do not contain mercury, hexavalent chromium, cadmium or lead, except in the cases listed in Annex II. The Commission must amend the Annex in the light of scientific and technical progress.

In 2002, Commission Decision 2002/525/EC2 amended the list of exemptions of Annex II for the first time. Among other things, it deleted the exemption for the use of lead in coating inside petrol tanks.

The Directive also introduces provisions on the collection of all end-of-life vehicles (Article 5). Member States must set up collection systems for end-of-life vehicles and for waste used parts. They must also ensure that all vehicles are transferred to authorised treatment facilities, and must set up a system of deregistration upon presentation of a certificate of destruction. Such certificates are to be issued when the vehicle is transferred, free of charge, to a treatment facility.

The last holder of an end-of-life vehicle will be able to dispose it free of charge ("free take-back" principle). Producers must meet all, or a significant part of, the cost of applying this measure.

The storage and treatment of end-of-life vehicles is also subject to strict control, in accordance with the requirements of Directive 75/442/EEC and those of Annex I to the Directive. Establishments or undertakings carrying out treatment operations must strip end-of-life vehicles before treatment and recover all environmentally hazardous components. Priority must be given to the re-use and recycling of vehicle components (batteries, tyres, oil).

At the moment, 75% of end-of-life vehicles are recycled (metal content). The aim of this Directive is to increase the rate of re-use and recovery to 85% by average weight per vehicle and year by 2006, and to 95% by 2015, and to increase the rate of re-use and recycling over the same period to at least 80% and 85% respectively by average weight per vehicle and year. Less stringent objectives may be set for vehicles produced before 1980.

Member States must ensure that producers use material coding standards which allow identification of the various materials during dismantling. The Commission must establish European standards on material coding and identification.

Economic operators must provide prospective purchasers of vehicles with information on the recovery and recycling of vehicle components, the treatment of end-of-life vehicles and progress with regard to re-use, recycling and recovery. On the basis of this information, Member States must report to the Commission every three years on the implementation of the Directive. The Commission must then publish a report on the implementation of the Directive.

Member States may transpose certain of the Directive's provisions by means of agreements with the economic sectors concerned.

4) REFERENCES

Official Journal L 269, 21.10.2000

Official Journal L 282, 26.10.2001

Official Journal L 50, 21.02.2002

Official Journal L 170, 29.06.2002

7) FOLLOW-UP WORK

- ✓ In January 2004, the Commission launched a consultation round on the revision of certain entries of Annex II of the ELV Directive. Commission Decision 2002/535/EC provides for a review of the scheduled phase-out date of certain entries of Annex II. This current review, which is intended to be finalised by the end of 2004, concerns the following entries:
 - a) entry 2 (a), which grants an exemption for the use of lead as an alloying element in aluminium for machining purposes with a lead content up to 2% by weight until 1 July 2005;
 - b) entry 2 (b), which grants an exemption for the use of lead as an alloying element in aluminium for machining purposes to a lead content up to 1% by weight until 1 July 2008;
 - c) entry 7, which grants an exemption for the use of lead and lead compounds in wheel-balance weights for vehicles type-approved before 1 July 2003 and wheel balance weighs intended for the servicing of those vehicles until 1 July 2005;
 - d) entry 8, which grants an exemption for the use of lead and lead compounds in vulcanising agents and stabilisers for elastomers in fluid handling and powertrain applications until 1 July 2005; and
 - e) entry 21, which grants an exemption for the use of cadmium in batteries for electrical vehicles until 31 December 2005.

Management of waste from the extractive industry

1) OBJECTIVE

To prevent or minimise adverse effects and risks to health and the environment resulting from the management of waste from the extractive industries.

2) COMMUNITY MEASURES

- ✓ **Communication from the Commission "Promoting sustainable development in the EU non-energy extractive industry" (COM(2000) 265) Brussels, 3.5.2000**
- ✓ **Communication from the Commission on "Safe operation of mining activities: a follow-up to recent mining accidents" COM(2000) 664 Brussels, 23.10.2000**
- ✓ **European Parliament Resolution on the Commission communication "Safe operation of mining activities: a follow-up to recent mining accidents" (COM(2000) 664-C5-0013/2001 - 2001/2005(COS)) Brussels 5.6.2001**
- ✓ **Proposal for a Directive of the European Parliament and of the Council on the management of waste from the extractive industries (presented by the Commission) COM(2003) 319 2003/0107 (COD) Brussels, 2.6.2003**

3) SUMMARY

A number of catastrophic environmental accidents over the last decade have highlighted the significant environmental and health risks associated with the management of mining waste. Particular dangers arise from the high volume and pollution potential of the types of waste produced by the extractive industries.

Consequently, in May and October 2000 the Commission published two Communications on this topic. The first was on "Promoting sustainable development in the EU non-energy extractive industry" and the second, on "Safe operation of mining activities: a follow-up to recent mining accidents".

The October Communication set out three priority actions envisaged to improve the safety of mines:

- a) an amendment of the Seveso II Directive⁸ to include in its scope mineral processing of ores and, in particular, tailings ponds or dams used in connection with such mineral processing of ores;
- b) a Best Available Techniques reference document (BREF) describing the Best Available Techniques of waste management to reduce everyday pollution and to prevent or mitigate accidents in the mining sector⁹; and
- c) a legislative initiative on the management of mining waste in order to help prevent environmental damage.

In its response to the communication, the European Parliament welcomed the proposals for changes to the Seveso II Directive as well as the amendment to the EU hazardous waste list to include certain types of mining waste. In addition, it underlined the need to include special provisions related to mining and mining waste in a future directive on environmental liability to apply to industrial polluters.

Following on this, in June 2003, the European Commission published a Proposal for a Directive on the management of waste from the extractive industries. The proposal applies to waste resulting from extraction, processing and storage of mineral resources and the working of quarries. It replaces the regulation of such waste under the Directive on the landfill of waste, which the European Parliament argued was insufficient in its scope.

The proposed Directive sets out the following measures:

- 1 No waste management installation of the extractive industries can operate without a permit issued by the competent authorities. In order to obtain a permit, the operator of the installation must meet the provisions of this proposal. The public must be informed of applications for permits and be able to participate in the procedure for obtaining a permit.
- 2 In constructing a new waste facility or modifying an existing one, the competent authority must ascertain the following:
 - a) the suitable location of the facility;
 - b) the physical stability of the facility and prevention of soil and water pollution;
 - c) monitoring and inspection of the waste facility by competent persons (once a year, the operator must report on the results of monitoring);
 - d) arrangements for closing down the facility, returning the site to its original state and follow-up after closure.

⁸ Council Directive 96/82/EC of 9 December 1996 on "the control of major-accident hazards involving dangerous substances" aims to prevent and/or limit the impacts of major mining accidents on human health and the environment, and to achieving high levels of protection throughout the EU in a consistent and effective manner.

⁹ This initiative falls under the competence of the European Integrated Pollution Prevention and Control Bureau (<http://eippcb.jrc.es/>), part of the Institute for Prospective Technological Studies (IPTS) in Sevilla of the Joint Research Centre.

- 3 Member States must ensure that operators of the waste facility draw up a waste **management plan**. The objectives of the plan are as follows:
 - a) preventing or reducing the generation of waste and its negative impact;
 - b) encouraging waste recovery through recycling, re-use or recovery.
- 4 This plan must contain the following elements:
 - a) a description of the waste and its classification, a description of the substances used to process the mineral resources, the method of disposal and the system used for waste transport;
 - b) a description of the operation generating this waste;
 - c) control and monitoring procedures;
 - d) procedures for closure and after-closure procedures;
 - e) measures for the prevention of water and soil pollution.
- 5 The competent authority must ascertain that the operator of a waste management facility takes the measures necessary to prevent **water and soil contamination**, in particular by:
 - a) evaluating leachate generation (leachate means any liquid percolating through the deposited waste, including polluted drainage);
 - b) preventing leachate generation and preventing surface water or groundwater from being contaminated by the waste;
 - c) treating contaminated water and leachate in order to ensure their discharge.
- 6 Cyanide concentrations in the ponds intended to hold the waste and the residual water are limited by the proposal.
- 7 Waste facilities may be of **two types** according to their potential risks:
 - a) category A: a waste facility whose failure or incorrect operation would present a significant accident hazard;
 - b) category B: all other waste facilities.
- 8 Operators of category A facilities must draw up:
 - a) a policy for preventing major accidents;
 - b) a system for safety management;
 - c) an internal emergency plan specifying the measures to be taken on site in the event of an accident.
- 9 For facilities in this category, the competent authority must compile an external emergency plan for the measures to be taken off-site in the event of an accident. These two types of emergency plans are intended to reduce the impact of major accidents on health and the environment and ensure the restoration of the environment following such an accident. They must provide for participation by the public and for taking account of the views of the public.

- 10 The competent authority requires that the operator provides a **financial guarantee** before the beginning of waste processing operations so as to ensure that the provisions of this proposal are complied with and that the financial resources for restoring the site are always available.
- 11 A waste facility is regarded as finally closed when the competent authority carries out a final inspection, studies the reports submitted by the operator, confirms that the site has been restored and gives its approval. After closure, the operator must maintain and monitor the site for as long as the competent authority considers necessary. The costs of these measures are borne by the operator.
- 12 Every three years, the Member States must submit to the European Commission a report on the implementation of this proposal. The Commission will publish a report nine months after having received the information from the Member States.

4) PROGRESS OF THE PROPOSAL

Codecision procedure (COD/2003/0107)

- ✓ On 11 December 2003 the European Economic and Social Committee delivered its opinion [Official Journal C 80 of 30.03.2004].
- ✓ On 12 February 2004 the Committee of the Regions delivered its opinion.
- ✓ On 31 March 2004 the Parliament approved the Commission's proposal subject to certain amendments. The Commission accepted some of these amendments.

Incineration of hazardous waste

1) OBJECTIVE

To prevent or reduce the effects of hazardous waste incineration on the environment and the ensuing risks for public health.

2) COMMUNITY MEASURES

- ✓ **Council Directive 94/67/CE of 16 December 1994 on the incineration of hazardous waste.**

3) CONTENTS

The Directive defines the following concepts:

- Dangerous waste, solid or liquid, of Council Directive 91/689/EEC. Municipal waste and combustible liquid waste (including waste oils) are excluded on the grounds that the levels of harmful emissions from such waste are characteristically negligible;
- Hazardous waste incineration plant (whether new or existing), and any installation using such waste as an additional fuel.

Before an incineration plant can become operational, a licence must be obtained from the competent authorities designated by each Member State. The issuing of such licences is subject to the conditions laid down in the Directive. Steps must be taken as swiftly as possible to employ the best available technologies in both the new and the existing plants. A licence is also required for the discharge of waste water from an incineration plant. Licences will be reviewed every five years.

Licensing procedures and emission inspection results must be made public.

The plant operator will be required to draw up an analytical report each time waste is delivered and accepted and to provide a detailed description of the waste in question. The same rules will apply in the case of interim storage and pretreatment.

The Directive lays down general and specific conditions governing the design and operation of incineration plants. Annex TN III gives details of the technologies currently available. Fuelling the furnace with dangerous waste will be permitted only if the main operating parameters fall within the prescribed limits.

The Directive lays down emission threshold values comparable to those obtainable with the best available technologies. Emissions of dioxins and furans must be reduced to a minimum by means of the most advanced technologies. A guideline value of 0.1 ng TE/m³ is laid down in respect of these emissions.

Incineration residues left over from the treatment of combustion gases must be disposed of in accordance with the provisions of the Directive on dangerous and other waste (Council Directive 75/442/EEC, and of Council Directive 91/689/EEC).

Measuring equipment and techniques must meet high technological standards in order to ensure that compliance with the threshold values and operating conditions can be effectively monitored (see Annexes TN IV and VI for relevant information and specifications). Measurements must be taken on an ongoing basis in respect of the quantitatively significant emissions, and the results set against standard operating conditions. Emissions which cannot at present be measured on an ongoing basis (dioxins, furans, heavy metals) must be checked once a month. In the event of the threshold values being exceeded, the plant must cease operation until the situation has been rectified and the plant complies once more with the requirements laid down in the Directive.

Operators of existing plants must either take steps to comply with the provisions of the Directive before 30 June 2000, and inform the Commission accordingly or must notify the competent authority, by 30 June 1997 at the latest, that the existing plant will not be operated for more than 20 000 hrs during the five-year period allowed at maximum between the date of the operator's notification and final shut down.

This Directive will be repealed on 28 December 2005 by Directive 200/76/EC, relating to the incineration of waste.

4) REFERENCES

Official Journal L 365, 31.12.1994

5) COMMISSION IMPLEMENTING MEASURES

- ✓ **Decision 97/283/EC - Official Journal L 113, 30.04.1997**
Commission Decision of 21 April 1997 on harmonized measurement methods to determine the mass concentration of dioxins and furans in atmospheric emissions in accordance with Article 7(2) of Directive 94/67/EC on the incineration of hazardous waste.
- ✓ **Decision 98/184/EC - Official Journal L 67, 07.03.1998**
Commission Decision of 25 February 1998 concerning a questionnaire for Member States' reports on the implementation of Council Directive 94/67/EC on the incineration of hazardous waste (implementation of Council Directive 91/692/EEC).

Existing waste-incineration plants

1) OBJECTIVE

To reduce the emissions of certain pollutants from existing municipal waste-incineration plants.

2) COMMUNITY MEASURE

- ✓ **Council Directive 89/429/EEC of 21 June 1989 on the reduction of pollution from existing municipal waste-incineration plants.**

3) CONTENTS

The Directive lays down requirements for the operation of municipal waste-incineration plants for which the first authorisation to operate was granted before 1 December 1990.

Plants with a nominal capacity of at least 6 tonnes per hour must, as from 1 December 1996, comply with the same requirements as new incineration plants with the same capacity.

Other incineration plants must, no later than 1 December 1995, comply with the emission limit values for certain pollutants and the combustion requirements given in the Directive. Under certain conditions, the Member States are authorised to adopt limit values for other pollutants, in particular dioxins and furans.

Furthermore, all existing installation must

- Comply with the requirements for the design, fitting-out and operation of incineration plants;
- Be periodically monitored to measure the concentration of certain substances in the combustion gases.

Where the limit values are exceeded in an incineration plant, the Member State concerned must ensure that the plant concerned stops operating until the necessary changes have been made; or a decision has been taken to close the plant down.

4) REFERENCES

Official Journal L 203, 15.07.1989

Landfill of waste

1) OBJECTIVE

To prevent or reduce as far as possible negative effects on the environment from the landfilling of waste, by introducing stringent technical requirements for waste and landfills.

2) COMMUNITY MEASURES

- ✓ **Council Directive 99/31/EC of 26 April 1999 on the landfill of waste.**

3) CONTENTS

The Directive is intended to prevent or reduce the adverse effects of the landfill of waste on the environment, in particular on surface water, groundwater, soil, air and human health.

It defines the different categories of waste (municipal waste, hazardous waste, non-hazardous waste and inert waste) and applies to all landfills, defined as waste disposal sites for the deposit of waste onto or into land. Landfills are divided into three classes:

- Landfills for hazardous waste;
- Landfills for non-hazardous waste;
- Landfills for inert waste.

The Directive does not apply to

- The spreading on the soil of sludges (including sewage sludges and sludges resulting from dredging operations);
- The use in landfills of inert waste for redevelopment or restoration work;
- The deposit of unpolluted soil or of non-hazardous inert waste resulting from prospecting and extraction, treatment and storage of mineral resources as well as from the operation of quarries;
- The deposit of non-hazardous dredging sludges alongside small waterways from which they have been dredged and of non-hazardous sludges in surface water, including the bed and its subsoil.

A standard waste acceptance procedure is laid down so as to avoid any risks. This comprises the following steps:

- Waste must be treated before being landfilled;
- Hazardous waste within the meaning of the Directive must be assigned to a hazardous waste landfill;
- Landfills for non-hazardous waste must be used for municipal waste and for non-hazardous waste;
- Landfill sites for inert waste must be used only for inert waste.

The following wastes may not be accepted in a landfill:

- a. Liquid waste;
- b. Flammable waste;
- c. Explosive or oxidising waste;
- d. Hospital and other clinical waste which is infectious;
- e. Used tyres, with certain exceptions;
- f. Any other type of waste which does not meet the acceptance criteria laid down in Annex II.

The Directive sets up a system of operating permits for landfill sites. Applications for permits must contain the following information:

- The identity of the applicant and, in some cases, of the operator;
- A description of the types and total quantity of waste to be deposited;
- The capacity of the disposal site;
- A description of the site;
- The proposed methods for pollution prevention and abatement;
- The proposed operation, monitoring and control plan;
- The plan for closure and aftercare procedures;
- The applicant's financial security;
- An impact assessment study, where required under Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

Member States must ensure that existing landfill sites may not continue to operate unless they comply with the provisions of the Directive as soon as possible.

Member States must report to the Commission every three years on the implementation of the Directive.

On the basis of these reports, the Commission must publish a Community report on the implementation of the Directive.

4) REFERENCES

- ✓ **Official Journal L 182, 16.07.1999; Corrigendum: Official Journal L 282 of 05.11.1999**
- ✓ **Official Journal L282, 05.11.1999**
- ✓ **Official Journal L 11 of 16.01.2003**

5) COMMISSION IMPLEMENTING MEASURES

- ✓ **Council Decision 2003/33/EC** of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC.
- ✓ **Decision 2000/738/EC - Official Journal L 298, 25.11.2000**
Commission Decision of 17 November 2000 concerning a questionnaire for Member States' reports on the implementation of Directive 1999/31/EC on the landfill of waste.

New incineration plants

1) OBJECTIVE

To reduce emissions of certain pollutants from new municipal waste incineration plants.

2) COMMUNITY MEASURE

- ✓ **Council Directive 89/369/EEC of 8 June 1989 on the prevention of air pollution from new municipal waste incineration plants.**

3) CONTENTS

The Directive lay down conditions for the granting by the Member States of authorisation to operate new municipal waste incineration plants (domestic, commercial and business refuse, and other waste which, because of its nature or composition, is similar to domestic refuse).

The conditions are as follows:

- Compliance with the emission limit values for the pollutants mentioned in the Directive;
- Compliance with criteria on the design, equipment and operation of the incineration plants;
- Periodic checks on the concentration of certain substances in the combustion gases and of operating parameters.

Where the limit values are exceeded in an incineration plant, the Member State concerned must prohibit that plant's operation until such time as:

- The necessary adjustments have been made;
- A decision is taken to close the plant.

Member States may in some cases allow derogations from the provisions of the Directive.

4) REFERENCES

Official Journal L 163, 14.06.1989

The Member States are to notify the drafts of the measures which they intend to adopt within the framework of the Directive, excluding tax measures, prior to adopting them.

To provide the necessary Community data on waste management, the Member States must ensure that databases on packaging and packaging waste are established on a harmonized basis so that the implementation of the objectives of the Directive can be monitored.

The Member States are to report regularly to the Commission on the application of the Directive.

Member States will ensure that users of packaging are given the necessary information about the management of packaging and packaging waste.

The identification system and the structure of the databases will be adapted to scientific and technical progress.

This Directive provides for a transition period during which packaging manufactured before its entry into force may be marketed.

On 7 December 2001, the Commission presented a proposal for a directive of the European Parliament and of the Council, amending Directive 94/62/EC on packaging and packaging waste [COM (2001) 729 final - Official Journal C 103, 30.04.2002].

This proposal lays down new, more ambitious targets for recovery and recycling, to be met by 30 June 2006. The overall recovery and recycling targets must be between 60% and 75%, and 55% and 70% respectively. Specific recycling targets were also fixed according to materials: 60% for glass, 55% for paper and cardboard, 50% for metals and 20% for plastics (mechanical and chemical recycling only). Greece, Ireland and Portugal were given until 30 June 2009 to meet these targets.

The proposal signals the need for new definitions of "raw material" and chemical recycling. It includes an interpretation of the definition of packaging.

4) REFERENCES

Official Journal L 365, 31.12.1994

5) PROGRESS OF THE PROPOSAL

Codecision procedure (COD/2001/0291)

On 29 May 2002, the Economic and Social Committee delivered its opinion [Official Journal C 221 of 17.09.2003].

On 3 September 2002, Parliament approved the Commission proposal subject to certain amendments. The Commission accepted some of these amendments. On 7 March, the Commission adopted an amended proposal incorporating some of these amendments. On 6 March 2003, the Council adopted a common position. This position is before the European Parliament for its opinion in second reading.

On 25 November 1996 the Commission put forward a proposal for a directive on marking of packaging and on the establishment of a conformity assessment procedure for packaging [COM(96) 191 final - Official Journal C 382, 18.12.1996].

The proposal harmonises the marking of re-usable and recyclable packaging practised on a voluntary basis by economic operators. It also establishes a conformity assessment procedure applicable to all the packaging covered by Directive 94/62/EC.

Co-decision procedure

First reading: On 25 February 1999 Parliament approved the Commission's proposal subject to 12 amendments [Official Journal C 153, 01.06.1999]. An amended proposal from the Commission incorporating the amendments it has accepted is awaited. The legal basis for this proposal has been renumbered following the entry into force of the Treaty of Amsterdam.

6) COMMISSION IMPLEMENTING MEASURES

- ✓ **Decision 97/129/EC - Official Journal L 50, 20.02.1997**
Commission Decision of 28 January 1997 establishing the identification system for packaging materials pursuant to European Parliament and Council Directive 94/62/EC.

The Decision establishes the numbering and abbreviations on which the identification system is based, indicating the nature of the packaging material(s) used and specifying which materials are subject to the identification system.

- ✓ **Decision 97/138/EC - Official Journal L 52, 22.02.1997**
Commission Decision of 3 February 1997 establishing the formats relating to the database system pursuant to European Parliament and Council Directive 94/62/EC on packaging and packaging waste.

The formats serve to harmonize the characteristics and presentation of data on packaging and packaging waste, making them compatible from one Member State to another. The data will be used to monitor attainment of the objectives of Directive 94/62/EC. Provision of data is compulsory only in respect of the following packaging materials: glass, plastics, paper and fibreboard and metals.

- ✓ **Decision 97/622/EC - Official Journal L 256, 19.09.1997**
Commission Decision of 27 May 1997 concerning questionnaires for Member States reports on the implementation of certain Directives in the waste sector (implementation of Council Directive 91/692/EEC).
- ✓ **Decision 1999/177/EC - Official Journal L 56, 04.03.1999**
Commission Decision of 8 February 1999 establishing the conditions for a derogation for plastic crates and plastic pallets in relation to the heavy metal concentration levels established in Directive 94/62/EC on packaging and packaging waste.
- ✓ **Decision 1999/652/EC - Official Journal L 257, 02.10.1999**
Commission Decision of 15 September 1999 confirming the measures notified by Belgium pursuant to Article 6(6) of Directive 94/62/EC of the European Parliament and the Council on packaging and packaging waste.
- ✓ **Decision 2001/171/EC - Official Journal L 62, 02.03.2001**
Commission Decision of 19 February 2001 establishing the conditions for a derogation for glass packaging in relation to the heavy metal concentration levels established in Directive 94/62/EC on packaging and packaging waste.
- ✓ **Decision 2001/524/EC - Official Journal L 190, 12.07.2001**
Commission Decision of 28 June 2001 relating to the publication of references for standards EN 13428:2000, EN 13429:2000, EN 13430:2000, EN 13431:2000 and EN 13432:2000 in the Official Journal of the European Communities in connection with Directive 94/62/EC on packaging and packaging waste.
- ✓ **Report [COM(1999) 596 final - Not published in the Official Journal]**
Interim Report from the Commission to the Council and the European Parliament according to Article 6.3(a) of Directive 94/62/EC on packaging and packaging waste.

The interim report provides the Council and the European Parliament with the information they need in order to examine the practical experience gained in the Member States since 1998 and the findings of scientific research and evaluation techniques such as eco-balances. The report focuses primarily on "practical experience gained in the pursuance of the targets" (see point 3).

One third of the packaging for soft drinks, mineral water and wine in the European Union is reused. The packaging materials concerned by reuse are mainly glass and PET (polyethylene terephthalate). Some Member States have reuse systems in the milk products sector, though Directive 94/62/EC does not set targets in that area. It should be added that reuse systems are available to a much greater extent in the northern Member States than in the southern Member States.

Regarding recycling, the targets set by the Directive have proven realistic, with only slight geographical differences. The only material for which the recycling rate is still low is plastic.

Disposal of polychlorinated biphenyls and polychlorinated terphenyls

1) OBJECTIVE

To approximate the laws of the Member States on the controlled disposal of PCBs, the decontamination or disposal of equipment containing PCBs and/or the disposal of used PCBs in order to eliminate them completely.

2) COMMUNITY MEASURE

- ✓ **Council Directive 96/59/EC of 16 September 1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCBs/PCTs).**

3) CONTENTS

Member States must take the necessary measures to ensure that:

- Used PCBs are disposed of;
- PCBs and equipment containing PCBs are decontaminated or disposed of.

Inventories must be compiled of equipment with PCB volumes of more than 5 dm³, which Member States must send to the Commission by September 1999 at the latest. The equipment and PCBs contained in the inventories must be decontaminated or disposed of by 2010 at the latest.

The inventories must supply the following data:

- a. The names and addresses of the holders;
- b. The location and description of the equipment;
- c. The quantity of PCBs contained in the equipment;
- d. The date and type of treatment planned;
- e. The date of the declaration.

Any equipment which is subject to inventory must be labelled.

Member States must prohibit:

- The separation of PCBs from other substances for the purpose of reusing the PCBs;
- The topping-up of transformers with PCBs.

Member States must take the necessary measures to ensure that:

- PCBs, used PCBs and equipment containing PCBs which is subject to inventory are transferred to licensed undertakings, at the same time ensuring that all necessary precautions are taken to avoid the risk of fire;
- Any incineration of PCBs or used PCBs on ships is prohibited;
- All undertakings engaged in the decontamination and/or the disposal of PCBs, used PCBs and/or equipment containing PCBs obtain permits;
- Transformers containing more than 0.05% by weight of PCBs are decontaminated under the conditions specified by the Directive.

In accordance with the committee procedure referred to in Directive 75/442/EEC, the Commission:

- Must fix the reference methods of measurement to determine the PCB content of contaminated materials;
- May fix technical standards for the other methods of disposing of PCBs;
- Must make available a list of the production names of capacitors, resistors and induction coils containing PCBs;
- Will determine, if necessary, other less hazardous substitutes for PCBs.

Within three years following the adoption of this Directive, Member States must draw up:

- Plans for the decontamination and/or disposal of inventoried equipment and the PCBs contained therein;
- Plans for the collection and subsequent disposal of equipment not subject to inventory.

This Directive repeals Directive 76/403/EEC.

4) REFERENCES

Official Journal L 243, 24.09.1996

Environmental issues of PVC

1) OBJECTIVE

To assess the impact of PVC waste on the environment and present proposals for addressing the problems which may arise in this connection.

2) COMMUNITY MEASURE

- ✓ **European Commission Green Paper of 26 July 2000 on environmental issues of PVC**

3) SUMMARY

PVC is, today, one of the most widely used plastics. It has also 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. An integrated approach is thus necessary to assess the whole life cycle of PVC in order to develop the necessary measures to ensure a high level of protection of human health and the environment as well as the proper functioning of the internal market.

With this in mind, a Green Paper on Environment Issues of PVC COM (2000)469 was adopted on 26 July 2000. The Green Paper follows on from the Commission's commitment, in its draft Directive on end-of-life vehicles, to assess the impact of PVC waste on the environment in an "integrated approach", i.e. throughout the life cycle of PVC.

The Green Paper concludes a three-year study programme launched by the Commission on the technical, scientific and economic aspects of the PVC life cycle. It deals with two main questions:

- environmental and health questions concerning the use of certain additives in PVC (particularly lead, cadmium and phthalates);
- the question of waste management (landfill, incineration, recycling of PVC waste): PVC waste is expected to increase by about 80% over the next twenty years.

The Green paper lists a range of measures, mandatory as well as voluntary, that are available to implement a horizontal Community strategy on PVC. For instance

- The European PVC industry has signed a voluntary commitment on the sustainable development of PVC, which among others addresses the reduction of the use of certain heavy metal stabilisers, the mechanical recycling of certain post consumer wastes and the development of further recycling technologies;
- Legislative measures, such as a Proposal for a Directive on PVC, or a mix of instruments such as the adaptation of existing Directives, Recommendations to the Member States and further environmental agreements (COM (2002) 412) could also be adopted.

During 2000, a broad stakeholder consultation process was held on the topics tackled in the Green Paper. This included a public hearing in October 2000. The Commission planned to produce a Communication on PVC in 2001. So far, this has not been done.

4) REFERENCE

COM (2000) 469

Not yet published in the Official Journal.

5) FOLLOW-UP WORK

Resolution of the European Parliament

- ✓ In its Resolution on the Commission Green Paper on environmental issues of PVC the Parliament criticises the Commission for not having performed any lifecycle analysis of PVC products to compare them with alternative materials:
 - a) The Parliament calls on the Commission to bring forward as soon as possible a draft long-term horizontal strategy on the replacement of PVC.
 - b) It proposes that the "polluter pays" principle be applied to PVC waste.
 - c) It also calls on the Commission to propose appropriate measures to ensure separate collection of PVC products and to propose that all use of lead and cadmium in PVC be banned.
 - d) It suggests that a recycling system similar to that for end-of life vehicles be set up and that labelling of all plastic materials be made compulsory.

Use of sewage sludge in agriculture

1) OBJECTIVE

To regulate the use of sewage sludge in agriculture in such a way as to prevent harmful effects on soil, vegetation, animals and man.

2) COMMUNITY MEASURES

- ✓ **Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture.**

3) CONTENTS

Sewage sludge has valuable agronomic properties in agriculture. In using the sludge account must be taken of the nutrient needs of plants, without however impairing the quality of the soil and of surface and ground water. Some heavy metals present in sewage sludge may be toxic to plants and man.

Definitions of the following terms: "sludge", "treated sludge", "agriculture", "use".

Sewage sludge may be used in agriculture, provided that the Member State concerned regulates its use.

The Directive lays down limit values for concentrations of heavy metals in the soil (Annex IA), in sludge (Annex IB) and for the maximum annual quantities of heavy metals which may be introduced into the soil (Annex IC).

The use of sewage sludge is prohibited if the concentration of one or more heavy metals in the soil exceeds the limit values laid down in accordance with Annex IA. The Member States must take the measures necessary to ensure that these limit values are not exceeded through the use of sludge.

Sludge must be treated before being used in agriculture but the Member States may authorise the use of untreated sludge if it is injected or worked into the soil.

The use of sludge is prohibited:

- On grassland or forage crops if the grassland is to be grazed or the forage crops to be harvested before a certain period has elapsed (this period, fixed by the Member States, may not be less than three weeks);
- Soil in which fruit and vegetable crops are growing, with the exception of fruit trees;
- Ground intended for the cultivation of fruit and vegetable crops which are normally in direct contact with the soil and normally eaten raw, for a period of ten months preceding the harvest of the crops and during the harvest itself.

Sludge and soil on which it is used must be sampled and analysed.

The Member States must keep records registering the following:

- The quantities of sludge produced and the quantities supplied for use in agriculture;
- The composition and properties of the sludge;
- The type of treatment carried out;
- The names and addresses of the recipients of the sludge and the places where the sludge is to be used.

Where conditions so demand, Member States may take more stringent measures than those provided for in this Directive.

Five years after notification of this Directive, and every four years thereafter, Member States must prepare a consolidated report on the use of sludge in agriculture, specifying quantities used, criteria followed and any difficulties encountered; this report must be forwarded to the Commission.

In the light of that report, the Commission will if necessary submit appropriate proposals for increased protection of the soil and the environment.

4) REFERENCES

Official Journal L 181, 04.07.1986

5) COMMISSION IMPLEMENTING MEASURES

✓ **Communication [COM(97)23 final - not published in the Official Journal].**

Communication from the Commission to the Council and to the European Parliament of 27 February 1997 on the application of Directives 75/439/EEC, 75/442/EEC, 78/319/EEC and 86/278/EEC on waste management.

As Directive 86/278/EEC was notified on 17 June 1986, the Member States had to compile their first report before 17 June 1991. Only six Member States (Belgium, Denmark, Germany, France, Spain, United Kingdom) forwarded their 1991/92 reports.

A second report covering the period 1991/94 should have been transmitted before 17 June 1995.

The Commission's analysis covers the period 1991/94 on the basis of reports submitted by five Member States (Belgium, Spain, France, United Kingdom and Portugal).

According to the report some Member States have not adopted all the national measures for transposition of this Directive. Accordingly, Belgium has been condemned by the Court of Justice (Case C-260/93) for failure to transpose the Directive.

Following the adoption of Directive 91/692/EEC standardising and implementing certain directives relating to the environment, the Commission adopted a model questionnaire for the compilation of reports, first used for the 1991/94 report.

The Commission believes that as matters stand it is difficult to draw any final conclusions because several Member States have not submitted their reports and because some of the reports transmitted are incomplete. However, the Commission considers that the Directive has in fact been well implemented with regard to the authorised concentration of heavy metals in sludge for use in agriculture as the level is generally lower than the limit values fixed in Annex IB to the Directive.

✓ **Communication - COM(1999) 752 final** Report from the Commission to the Council and the European Parliament of 10 January 2000 on the implementation of Community waste legislation for the period 1995-1997 (Directives 75/442/EEC, 91/689/EEC, 75/439/EEC, 86/278/EEC).

In this report, the Commission notes that there are no major problems with the formal transposition into national law of Directive 86/278/EEC on sewage sludge. The Directive has been quite successful in preventing crop contamination by pathogens because of the use of sludge on agricultural soils. However, few Member States have a particularly high reuse rate. As the Commission forecasts an increase of about 40% in sludge production by 2005, a comprehensive review of the provisions contained in the Directive seems appropriate.

Shipment of Waste

1) OBJECTIVE

To simplify and clarify the existing EU regulations on the transboundary shipment of waste.

2) COMMUNITY MEASURES

- ✓ **Opinion adopted 28 January 2004 of the European Economic and Social Committee on the Proposal for a Regulation of the European Parliament and of the Council on shipments of waste**
- ✓ **Position of the European Parliament adopted at first reading on 19 November 2003 with a view to the adoption of a Regulation of the European Parliament and of the Council on shipments of waste (EPPE_TC1-COD(2003)0139)**
- ✓ **Amended proposal for a Regulation of the European Parliament and of the Council on Shipments of Waste (COM(2004) 172) 2003/0139 (COD), Brussels, 8.3.2004**

3) SUMMARY

In July 2003, the European Commission proposed a revision of the 10-year-old Waste Shipment Regulation. This Regulation sets environmental criteria for waste shipments within, into and outside the European Union. It covers shipments of practically all types of waste by all types of means, including vehicles, trains, ships and planes. The proposal strengthens the current control procedures, by simplifying and clarifying them to the benefit of both the environment and waste shipment companies. The proposal is also a step towards greater international harmonisation of waste shipments, as it fully implements the UN Basel Convention, which regulates shipments of hazardous waste at international level. The proposal reduces procedures and lists of waste from three to two.

The Commission's proposal introduces clarifications on the application and implementation of the current Regulation. The proposal does not change the basic logic of the current Regulation - namely that shipments of waste must follow specific procedures, which depend on the type of waste shipped, whether it is hazardous waste or not, and the type of treatment that will be applied to the waste at its destination: recovery or disposal.

Basel Convention on the control of transboundary movements of hazardous waste

1) OBJECTIVE

To control, at an international level, the transboundary movements and disposal of wastes hazardous to human health and the environment.

2) COMMUNITY MEASURES

- ✓ **Council Decision 93/98/EEC of 1 February 1993 on the conclusion, on behalf of the Community, of the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention)**
- ✓ **Council Decision 97/640/EC of 22 September 1997 on the approval, on behalf of the Community, of the amendment to the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention), as laid down in Decision III/1 of the Conference of the Parties.**

3) SUMMARY

The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal came into force for the EEC on 7 February 1994. The Convention sets out a system for controlling the export, import) and disposal of hazardous wastes, so as to reduce the volume of such exchanges and thereby protect human health and the environment.

The convention maintains a list and definitions of hazardous wastes, which can be added to by the parties according to their national legislation. A transboundary movement is defined as any movement of hazardous wastes or other wastes from an area under the national jurisdiction of one State to or through an area under the national jurisdiction of another State, or to or through an area not under the national jurisdiction of any State, provided at least two States are involved in the movement.

General obligations:

- It is prohibited to export or import hazardous wastes or other wastes to or from a non-party State;
- No wastes may be exported if the State of import has not given its consent in writing to the specific import;
- Information about proposed transboundary movements must be communicated to the States concerned, by means of a notification form, so that they may evaluate the effects of the proposed movements on human health and the environment;
- Transboundary movements of wastes must only be authorised where there is no danger attaching to their movement and disposal;
- Wastes which are to be the subject of a transboundary movement must be packaged, labelled and transported in conformity with international rules, and must be accompanied by a movement document from the point at which a movement commences to the point of disposal;
- Any party may impose additional requirements that are consistent with the provisions of the Convention.

The Convention establishes notification procedures regarding:

- Transboundary movements between parties;
- Transboundary movements from a party through the territory of States which are not parties.

It sets out those cases where there is a duty to re-import hazardous wastes, especially if they have been the subject of illegal trafficking.

Parties to the Convention must cooperate with each other in order to improve and achieve environmentally sound management of hazardous wastes and other wastes. The aim is to implement all practical measures to ensure that wastes covered by the Convention are handled in such a way that protection of human health and the environment from their harmful effects is guaranteed.

Parties may enter into bilateral, multilateral or regional agreements or arrangements regarding transboundary movements of hazardous wastes, with parties or non-parties, provided that these do not derogate from the principles defined by the Convention.

A Conference of the Parties is established and is charged with overseeing the effective implementation of the Convention. The Convention contains provisions on the settlement of disputes between Parties.

Under Decision II/1 the Parties provided for an amendment to the Convention to immediately prohibit transboundary movements of hazardous wastes destined for final disposal and prohibit as from 01.01.1998 transboundary movements of hazardous wastes destined for recovery operations from States listed in Annex VII to the Convention, namely, "Members of the European Organisation for Cooperation and Development (OECD), the European Community and Liechtenstein", to States not listed in Annex VII to the Convention. This amendment to the Convention and Annex VII have not yet entered into force for lack of sufficient ratification.

6) REFERENCES

Official Journal L 39, 16.02.1993
Official Journal L 272, 04.10.1997

7) FOLLOW-UP WORK

- ✓ On 23 May 1997 the Commission put forward a proposal for a decision on the approval, on behalf of the Community, of the amendment to the Convention on the control of transboundary movements of hazardous wastes and their disposal (Basel Convention), as laid down in Decision IV/9 of the Conference of the Parties [COM(98) 634 final - Official Journal C 409, 30.12.1998]. These amendments to the Annexes to the Convention are designed to establish lists of hazardous and non-hazardous wastes.
- ✓ Consultation procedure: On 13 April 1997 Parliament approved the proposal without amendment. The proposal was then adopted by the Council.

Supervision and control of the transfrontier shipment of hazardous waste

1) OBJECTIVE

To remove differences between Member States' procedures for the supervision and control within the Community of the transfrontier shipment of hazardous waste. To establish a prior notification system for all movements of hazardous waste.

2) COMMUNITY MEASURES

- ✓ **Council Directive 86/279/EEC of 12 June 1986 amending Directive 84/631/EEC on the supervision and control within the European Community of the transfrontier shipment of hazardous waste.**

3) CONTENTS

Transfrontier shipments of hazardous waste, whether within the European Community or into/out of the Community, must be notified by the holder of the waste concerned. This notification must be addressed either to the competent authorities of the Member State of destination (in the case of intra-Community shipments) or to the competent authorities of the Member State of dispatch (in the case of shipment from a Member State to a third country) or to the competent authorities of the last Member State through which the shipment is due to pass (in the case of waste from a third country in transit through the Community). Where waste is being exported from the Community, prior agreement must be obtained from the third State of destination.

Shipments must be notified by means of a uniform consignment note.

The holder of the waste may use a general notification procedure where waste having the same characteristics is shipped regularly to the same consignee.

Transfrontier shipment may not be carried out until the competent authorities have acknowledged receipt of the notification.

Under this Directive, the competent authorities may not lay down more stringent conditions for the intra-Community shipment of hazardous waste than those laid down in national law in respect of similar shipments effected wholly within the Member State in question.

4) REFERENCES

Official Journal L 181, 04.07.1986

Supervision and control of transfrontier shipment of waste

1) OBJECTIVE

To establish a system of supervision and control of all movements of waste.

2) COMMUNITY MEASURES

- ✓ **Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community [Official Journal L 30, 06.02.1993].**

Amended by the following measures:

- ✓ Commission Decision 94/721/EC of 21 October 1994 [Official Journal L 288, 09.11.1994];
- ✓ Commission Decision 96/660/EC of 14 November 1996 [Official Journal L 304, 27.11.1996];
- ✓ Council Regulation (EC) No 120/97 of 20 January 1997 [Official Journal L 22, 24.01.1997];
- ✓ Commission Regulation (EC) No 2408/98 of 6 November 1998 [Official Journal L 298, 07.11.1998];
- ✓ Council Regulation (EC) No 1420/1999 of 29 April 1999 [Official Journal L 166, 01.07.1999];
- ✓ Commission Regulation (EC) No 1547/1999 of 12 July 1999 [Official Journal L 185, 17.07.1999];
- ✓ Commission Regulation (EC) No 2557/2001 of 28 December 2001 [Official Journal L 349 of 31.12.2001].

3) SUMMARY

The current measures apply to shipments of waste, both within and into or out of the European Community, to waste transported between Member States but routed through one or more third countries, and to waste transported between third countries but routed through one or more Member States.

They concern the application by the Member States of a system of prior authorisation for the shipment of waste.

The system draws a distinction between:

- waste for disposal (landfill or incineration);
- waste for recovery (recycling).

In the case of waste for recycling, the Regulation draws a further distinction between a "green list" of wastes, for example metal and metal-alloy wastes (Annex II to the Regulation), an "amber list" including wastes from iron and steel production (Annex III), a "red list" including wastes containing PCBs and PCTs (Annex IV) and, finally, wastes not yet on any of these lists.

A common, compulsory notification system has been introduced and a standard consignment note for shipments of waste.

The notifier (the original producer, the holder or the person designated by the laws of the State of dispatch in the case of waste imported into or in transit within or through the Community) must apply for authorisation to the competent authorities of destination and send a copy of the application to the authorities of despatch, transit or destination.

The notifier must make a contract with the consignee for the disposal of the waste. The contract must oblige:

- The notifier to take the waste back if the shipment has not been completed or if it has been effected in violation of this Regulation;
- The consignee to provide a certificate to the notifier that the waste has been disposed of in an environmentally sound manner.

The shipment may not be made until the competent authority of destination has granted authorisation to the notifier.

Where waste is exported from a Member State to a third State, the notifier must apply for authorisation to the competent authority of dispatch.

Waste may not be shipped to a third State until the competent authorities of destination or dispatch have acknowledged receipt of the application for authorisation of the shipment.

Waste which does not comply with the provisions of the current measures regarding its shipment must be returnable to the notifier or, if this is not possible, otherwise disposed of or recovered in an environmentally sound manner.

Exports of waste intended for disposal are prohibited, except to EFTA countries which are parties to the Basel Convention. Exports of waste intended for recovery are prohibited, except those directed to OECD countries, third countries which are parties to the Basel Convention or countries which have concluded a bilateral agreement with the Community (or, before 6 May 1994, with a Member State).

All exports of waste covered by the measures to ACP States are prohibited.

Imports into the Community of waste for disposal are prohibited except imports from countries which are parties to the Basle Convention or countries with which the Community (or a Member State) has concluded bilateral agreements.

Imports from a non-EFTA country are permitted only on the basis of an application from the exporting country stating that it does not have the capacity to dispose of the waste in an environmentally sound manner.

Imports of waste for recovery into the Community are prohibited except those from countries to which the OECD decision applies, countries which are parties to the Basle Convention or countries with which the Community (or a Member State) has concluded bilateral agreements.

In the case of transit through the Community of waste originating outside the Community and for disposal or recovery outside the Community, the transit must be notified to the last competent authority of transit within the Community.

In the case of transit of waste for recovery from a country to which the OECD decision applies and to such a country, the notification must be sent to all of the competent authorities of transit in the Member State(s) concerned.

Member States must take the necessary steps to inspect, sample and monitor waste shipments.

Council Regulation (EEC) No 259/93 repeals Council Directive 84/631/EEC [Official Journal L 326, 03.12.1984].

Commission Regulation (EC) No 2408/98 of 6 November 1998 amends Annex V to Regulation (EEC) No 259/93.

Commission Regulation (EC) No 2408/98 establishes common rules and procedures to apply to shipments to certain non-OECD countries of certain types of waste.

This Regulation applies only to shipments of waste for recovery on the green list in Annex II to Regulation (EEC) No 259/93. It establishes common rules and procedures applicable to:

- countries which do not wish to receive wastes on the green list from the EC for recovery;
- countries which have not responded to the Commission's requests to indicate whether they accept shipments of such waste for recovery without the controls provided for by Regulation (EEC) No 259/93.

Regulation (EC) No 1547/1999 determining the control procedures to apply to shipments of certain types of waste to certain countries to which OECD Decision C(92)39 final does not apply, is itself amended by Regulation (EC) No 354/2000 concerning the control procedures to apply to shipments of

certain types of waste to China and by Regulation (EC) No 2243/2001 relating to the shipment of certain types of waste to Cameroon, Paraguay and Singapore.

4) IMPLEMENTING MEASURES

- ✓ **Decision 94/774/EC - Official Journal L 310, 03.12.1994**
 Commission Decision of 24 November 1994 concerning the standard consignment note referred to in Council Regulation (EEC) No 259/93 on the supervision and control of shipments of waste within, into and out of the EU. This Decision adopts the model of the standard consignment note provided in Council Regulation (EEC) No 259/93. This document is used for the notification and monitoring of shipments of waste and serves as a certificate of disposal or recovery of waste.
- ✓ **Decision 94/575/EC - Official Journal L 220, 28.08.1994**
 Commission Decision of 20 July 1994 determining the control procedure under the basic Regulation as regards certain shipments of waste to certain non-OECD countries.
 This Decision was adopted pursuant to Council Regulation (EEC) No 259/93.
 Decision 94/575/EC has been repealed by Regulation (EC) No 1547/1999/EC of 12 July 1999.
- ✓ **Decision 1999/816/EC - Official Journal L 316, 10.12.1999**
 Commission Decision of 24 November 1999 adapting, pursuant to Articles 16(1) and 42(3), Annexes II, III, IV and V to Council Regulation (EEC) No 259/93 on the supervision and control of shipments of waste within, into and out of the European Community.

5) FOLLOW-UP WORK

List of competent authorities for the purpose of Council Regulation (EEC) No 259/93 of 1 February 1993 on the supervision and control of shipments of waste within, into and out of the European Community [Official Journal C 126, 06.05.1999]

Waste incineration

1) OBJECTIVE

To prevent or reduce, as far as possible, air, water and soil pollution caused by the incineration or co-incineration of waste, as well as the resulting risk to human health.

2) COMMUNITY MEASURE

- ✓ **Directive 2000/76/EC of the European Parliament and of the Council of 4 December 2000 on the incineration of waste**

3) CONTENTS

Incineration of both dangerous and harmless wastes may cause emissions of substances which pollute the air, water and soil and have harmful effects on human health.

When the proposal for this Directive was introduced the Community's waste incineration system was covered by Directives 89/369/EEC and 89/429/EEC (new and existing municipal waste-incineration plants) and 94/67/EC (incineration of hazardous waste).

This Directive is intended to fill the gaps existing in that legislation. Apart from the incineration of non-toxic municipal waste its scope extends to the incineration of non-toxic non-municipal waste (such as sewage sludge, tyres and hospital waste) and toxic wastes not covered by Directive 94/67/EC (such as waste oils and solvents). At the same time it is intended to incorporate the technical progress made on monitoring incineration-process emissions into the existing legislation, and to ensure that the international commitments entered into by the Community are met in terms of pollution reduction, and more particularly those laying down limit values for the emissions of dioxins, mercury and dusts arising from waste incineration (protocols signed in 1998 under the aegis of the United Nations' Economic Commission Convention on long-distance cross-border atmospheric pollution). The proposal is based on an integrated approach: limits for discharges into water are added to the updated limits for emissions to atmosphere.

Unlike Directives 89/369/EEC and 89/429/EEC referred to above, this Directive applies not only to facilities intended for waste incineration ("dedicated incineration plants") but also to "co-incineration" plants (facilities whose main purpose is to produce energy or material products and which use waste as a

regular or additional fuel, this waste being thermally treated for the purpose of disposal). The Directive does not cover experimental plants for improving the incineration process and which treat less than 50 tonnes of waste per year. Nor does it cover plants treating only:

- Vegetable waste from agriculture and forestry, the food processing industry or the production of paper;
- Wood waste;
- Cork waste;
- Radioactive waste;
- Animal carcasses;
- Waste resulting from the exploitation of oil and gas and incinerated on board offshore installations.

All incineration or co-incineration plants must be authorised. Permits will be issued by the competent authority and will list the categories and quantities of hazardous and non-hazardous waste which may be treated, the plant's incineration or co-incineration capacity and the sampling and measurement procedures which are to be used.

Before accepting hazardous waste, operators of incineration or co-incineration plants must have available the prescribed administrative information on the generating processes, information on the physical and chemical composition of hazardous waste, and information on the hazardous characteristics of the waste.

In order to guarantee complete waste combustion, the Directive requires all plants to keep the incineration or co-incineration gases at a temperature of at least 850°C for at least two seconds. If hazardous wastes with a content of more than 1 % of halogenated organic substances, expressed as chlorine, are incinerated, the temperature has to be raised to 1100°C for at least two seconds.

The heat generated by the incineration process has to be put to good use as far as possible.

The limit values for incineration plant emissions to atmosphere are set out in Annex V to the Directive. They concern heavy metals, dioxins and furans, carbon monoxide (CO), dust, total organic carbon (TOC), hydrogen chloride (HCl), hydrogen fluoride (HF), sulphur dioxide (SO₂), nitrogen monoxide (NO) and nitrogen dioxide (NO₂).

The limit values for co-incineration plant emissions to atmosphere are set out in Annex II. In addition, special provisions are laid down relating to cement kilns, other industrial sectors and combustion plants which co-incinerate waste.

All discharges of effluents caused by exhaust-gas clean up must be authorised. This will guarantee that the emission limit values set out in Annex IV to the Directive are not exceeded. Rain or firefighting water will be collected and analysed before being discharged.

The quantity and harmfulness of incineration residues must be reduced to a minimum and residues must, as far as possible, be recycled. When dry residues are transported, precautions must be taken to prevent their dispersal in the environment. Tests must be carried out to establish the physical and chemical characteristics, and polluting potential, of residues.

The Directive provides for the mandatory provision of measurement systems enabling the parameters and relevant emission limits to be monitored. Emissions to atmosphere and into water must be measured periodically in accordance with Annex III and Article 11 of the Directive.

Applications for new permits must be made accessible to the public, so that the latter may comment before the competent authority reaches a decision.

For plants with a nominal capacity of two tonnes or more per hour, the operator must provide the competent authority with an annual report on the functioning and monitoring of the plant, to be made available to the public. A list of plants with a nominal capacity of less than two tonnes per hour must be drawn up by the competent authority and made available to the public.

By 31 December 2008, the Commission must report to Parliament and the Council on the application of the Directive, progress achieved in emission control techniques and experience with waste management. Other reports on the implementation of the Directive will also be produced.

The following will be repealed as of 28 December 2005:

- Article 8(1) and the Annex to Directive 75/439/EEC;
- Directive 89/369/EEC;
- Directive 89/429/EEC;
- Directive 94/67/EC.

The Member States must determine the penalties applicable to breaches of the provisions established by the Directive.

The Directive will apply to existing plants as from 28 December 2005 and to new plants as from 28 December 2002.

4) REFERENCES

Official Journal L 332, 28.12.2000

Waste management statistics

1) OBJECTIVE

To establish a framework for the production of Community statistics on the **generation, recovery and disposal of waste.**

2) PROPOSAL

- ✓ **Regulation (EC) No 2150/2002 of the European Parliament and of the Council of 25 November 2002 on waste statistics**

3) CONTENTS

The availability of regular, comparable, current and representative data on the production, recycling, re-use and disposal of waste is essential for the effective monitoring of the implementation of Community policy on waste management.

In establishing a framework for the preparation of Community statistics on waste management, this proposal Regulation the comparability and availability of statistics furnished by the Member States.

The Regulation requires the Member States and the Commission, in their respective fields of competence, to produce statistics on:

- e) waste production (in accordance with Annex I to the Regulation);
- f) recovery and disposal of waste (in accordance with Annex II to the Regulation);
- g) import and export of waste (in accordance with Annex III to the Regulation).

Statistics are to be produced using the statistical nomenclature set out in Annex III. The data on which the statistics are based are to be collected by means of surveys (obligatory for businesses with more than 10 employees), statistical estimation procedures or referral to administrative or other sources. Businesses with fewer than 10 employees are excluded from surveys, unless they contribute significantly to the generation of waste.

Member States are required to transmit the statistical results (including confidential data) to Eurostat within 18 months of the end of the reference periods specified in Annexes I and II.

Derogations may be granted for the data of the first reference year at the request of a Member State. They may not last more than:

- two years from the entry into force of the Regulation, for the production of results on services activities (see Annex I, Section 8, Point 1.1, Item 16) and on the list of recovery and disposal operations (see Annex II, Section 8, Point 2);
- three years from the entry into force of the Regulation for the production of results relating to agriculture, hunting and forestry (see Annex I, Section 8, Point 1.1, Item 1) and fishing (Item 2). A programme of pilot studies is to be drawn up for these sectors, to develop a methodology for obtaining regular data.

Another programme of pilot studies is to be drawn up, with the same purpose as the first but concerning the import and export of waste. Two more pilot study programmes are provided for in Annex I, Section 2, Point 2 (on packaging waste) and Annex II, Section 8, Point 3 (on the amount of waste conditioned by preparatory operations).

The Commission, assisted by the Statistical Programme Committee, will adopt the measures necessary for applying the Regulation. These will relate to:

- a. adjustment to economic and technical developments in the gathering, processing and communication of statistics;
- b. adaptation of Annexes I, II and III;
- c. formulation of proper quality assessment criteria;
- d. setting out the appropriate format for the transmission of results by Member States;
- e. implementation of the results of the pilot studies.

Five years after the Regulation enters into force, and every three years thereafter, the Commission will present a report to the Council and the European Parliament on the statistics prepared under this Regulation, their quality and the burden on businesses.

4) REFERENCE

Official Journal L 332 of 09.12.2002

Waste from electrical and electronic equipment

1) OBJECTIVE

To prevent the generation of electrical and electronic waste and to promote reuse, recycling and other forms of recovery in order to reduce the quantity of such waste to be eliminated, whilst also improving the environmental performance of economic operators involved in its treatment.

To approximate the laws of the Member States on restricting the use of hazardous substances in electrical and electronic equipment in order to contribute to the recovery and elimination of equipment waste and the protection of human health.

2) COMMUNITY MEASURES

- ✓ **Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment. Amended by Directive 2003/108/EC**
- ✓ **Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment**

3) CONTENTS

Proposal for a Directive on waste electrical and electronic equipment

This proposal applies to the following categories of electrical and electronic equipment:

- ✓ large and small household appliances;
- ✓ IT and telecommunication equipment;
- ✓ consumer equipment;
- ✓ lighting equipment;
- ✓ electrical and electronic tools (with the exception of large-scale stationary industrial tools);
- ✓ toys, leisure and sports equipment;
- ✓ medical devices (with the exception of implanted and infected products);
- ✓ monitoring and control instruments;
- ✓ automatic dispensers.

Member States are to encourage the design and production of electrical and electronic equipment which take into account and facilitate dismantling and recovery, in particular the reuse and recycling of waste electrical and electronic equipment.

Member States are to minimise the disposal of waste electrical and electronic equipment (WEEE) as unsorted municipal waste and are to set up separate collection systems for WEEE. In the case of electrical and electronic waste, Member States are to ensure that, as from 13 August 2005:

- h) final holders and distributors can return such waste free of charge;
- i) distributors of new products ensure that waste of the same type of equipment can be returned to them free of charge on a one-to-one basis;
- j) producers are allowed to set up and operate individual or collective take-back systems;
- k) the return of contaminated waste presenting a risk to the health and safety of personnel may be refused.

Producers must make provision for the collection of waste which is not from private households. Member States must ensure that all waste electrical and electronic equipment is transported to authorised treatment facilities.

By 31 December 2006 at the latest, a rate of separate collection of at least 4 kg on average per inhabitant per year of waste electrical and electronic equipment from private households must be achieved. A new target rate to be set at a later date is to be achieved by 31 December 2008.

Producers of electrical and electronic equipment must apply the best available treatment, recovery and recycling techniques. Such treatment is to include the removal of fluids and selective treatment in accordance with Annex II to the Directive. Waste treatment and storage must be in conformity with Annex III to the Directive.

Establishments responsible for treatment operations must obtain a permit from the competent authorities. They are encouraged to participate in the Community eco-management and audit scheme (EMAS).

Treatment operations may also be undertaken outside the Member State concerned, or even outside the Community, subject to compliance with Council Regulation (EEC) No 259/93 on the supervision and control of shipments of waste within, into and out of the European Community. Treatment outside the Community only count for the fulfilment of the targets of the Directive if the exporter can prove that treatment operations took place under conditions that are equivalent to the requirements of this Directive.

Producers must set up systems for the recovery of waste electrical and electronic equipment collected separately.

By 31 December 2006, the rate of recovery by an average weight per appliance must be at least 80% in the case of large domestic appliances and automatic dispensers, 70% in the case of small domestic appliances, lighting equipment,

electrical and electronic tools, toys, leisure and sports equipment and monitoring and control instruments, and 75% in the case of IT and telecommunications equipment and consumer equipment. By the same date, the rate of component, material and substance reuse and recycling by an average weight per appliance must be at least 80% in the case of discharge lamps, 75% in the case of large domestic appliances and automatic dispensers, 50% in the case of small domestic appliances, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment and monitoring and control equipment, and 65% in the case of IT and telecommunications equipment and consumer equipment.

By 13 August 2004, the Commission is to lay down the rules on compliance with the rates specified above. Producers must state the weight of the electrical and electronic waste entering and leaving treatment and recovery or recycling facilities. By 31 December 2008, the European Parliament and the Council are to set new targets for recovery, recycling and reuse.

By 13 August 2005, producers must provide for the financing of the collection, treatment, recovery and environmentally sound disposal of waste electrical and electronic equipment. In the case of products placed on the market later than 13 August 2005, each producer is responsible for providing financing in respect of his own products. When a producer places a product on the market, he must furnish a guarantee concerning the financing of the management of his waste. Such a guarantee may take the form of participation by the producer in financing schemes, a recycling insurance or a blocked bank account. In the case of products placed on the market before 13 August 2005 ('historical waste'), financing is to be provided by the producers existing on the market, who are, for instance, to contribute proportionately to their share of the market.

By 13 August 2005, financing is to be covered by producers in the case of waste from holders other than private households and placed on the market after that date. In the case of waste from products placed on the market before 13 August 2005, management costs are to be borne by producers when supplying new equivalent products or new products fulfilling the same function. However, Member States may provide that users be made responsible, partly or totally, for this financing. When historical waste is not replaced, by new equivalent products, the costs shall be provided for by the users other than private households.

Users of electrical and electronic equipment in private households must have access to the necessary information on the requirement not to mix this type of waste with unsorted municipal waste and to ensure separate collection, collection and take-back systems, their role in the recovery of waste, the effects of such waste on the environment and health, and the meaning of the symbol which must appear on the packaging of such equipment (a crossed-out wheeled bin).

Producers must mark electrical and electronic equipment placed on the market after 13 August 2005 with the above-mentioned symbol.

For each new type of electrical or electronic equipment, producers must provide, within one year after it is placed on the market, information on its reuse and treatment. Such information is to identify the components and materials present

in the equipment and the location of dangerous substances and preparations. Such information must be communicated to reuse centres and treatment and recycling facilities. Producers of electrical and electronic equipment placed on the market as from 13 August 2005 will be identifiable by a mark on each appliance.

Member States are to draw up a register of producers and keep information on the quantities and categories of electrical and electronic equipment placed on the market, collected, recycled and recovered in their territory. Every three years, they must also send a report to the Commission on the implementation of this Directive. The first such report will cover the 2004-2006 period. The Commission is then to publish a report on the same subject within nine months after receiving the reports from the Member States.

Member States are to determine the penalties applicable to breaches of this Directive.

From 1 July 2006, lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBBs) and polybrominated diphenyl ethers (PBDEs) in electrical and electronic equipment must be replaced by other substances. Certain exceptions are specified in the annex to the Directive.

By 13 February 2005, the Commission will review the provisions of the Directive, in particular as regards the feasibility of widening its scope and adapting the list of substances it covers so as to take account of new scientific facts.

Member States are to determine the penalties applicable to breaches of this Directive.

DEADLINE FOR IMPLEMENTATION OF THE LEGISLATION IN THE MEMBER STATES

- ✓ **Directive 2002/96/EC 13.8.2004**
- ✓ **Directive 2002/95/EC 13.8.2004**
- ✓ **Directive 2003/108/EC 13.08.2004**

5) DATE OF ENTRY INTO FORCE (if different from the above)

- ✓ **Directive 2002/96/EC 13.2.2003**
- ✓ **Directive 2002/95/EC 13.2.2003**
- ✓ **Directive 2003/108/EC 31.12.2003**

6) REFERENCES

- ✓ **Official Journal L 37 of 13.2.2003**
- ✓ **Official Journal L 345 of 31.12.2003**
- ✓ **Official Journal L 37 of 13.2.2003**

7) FOLLOW_UP WORK

- ✓ **Council Decision 2004/486/EC of 26 April 2004 granting Cyprus, Malta and Poland certain temporary derogations from Directive 2002/96/EC on waste electrical and electronic equipment [Official Journal L 162 of 30.4.2004].**

- ✓ **Council Decision 2004/312/EC of 30 March 2004 granting the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Slovakia and Slovenia certain temporary derogations from Directive 2002/96/EC on waste electrical and electronic equipment [Official Journal L100 of 06.04.2004].**

PART II

Review of Waste Management Practices

in 12 EU Accession Countries

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Executive Summary

Aims and Structure of this Report

Significant progress has been made in recent years in improving environmental performance in the EU accession candidates. Much of this success has been motivated by the need to implement EU environmental legislation. However the great strides are also a result of local innovation. Two European Union Awards – the Sustainable Cities Award, and the City Towards EU Compliance Award – both testify to improving standards and stronger commitment in municipalities throughout the CEEC.

While recognising the progress, it is also important to acknowledge that much work remains to be done and that a great number of local and regional authorities struggle to meet the standards set by EU environmental legislation. With this in mind the Austrian Association of Cities and Towns commissioned this report on waste management in the candidate countries.

The report aims to serve as

- ✓ A guide to policies, laws, and initiatives in the field of waste management throughout the European Union Accession Candidate Countries (CEEC).
- ✓ A resource of information, contacts, and support for practitioners and local officials.
- ✓ A presentation of the challenges and opportunities for improving waste management in the CEEC.
- ✓ A review of the progress made in the CEEC in meeting the requirements of the European Union's *acquis communautaire* with regard to waste management.
- ✓ An overview of some of the key problems facing local and regional government in the waste field.
- ✓ A series of policy recommendations aimed at the European institutions and designed to improve the quality and focus of their support to local actors in the Accession candidates.

As a consequence the report consists of

- ✓ This Executive Summary.
- ✓ A brief assessment of **waste management trends in the CEEC and the demands of EU accession.**
- ✓ **Country profiles** for each of the twelve EU candidate countries. Each country profile includes information on the key actors and drivers shaping waste policy; an assessment of how waste issues are being managed; and contact details with important sources of information.
- ✓ A summary of the main observations and recommendations arising from this report.

Report Methodology

This report was developed in three parts:

- 1) Information Gathering
- 2) Analysis
- 3) Drafting of final report

The **information gathering** phase of the project represented seven months of work and involved:

- A) **Literary review:** Previous studies conducted by the European Environment Agency (EEA), the Regional Environment Center of Central and Eastern Europe (REC), and selected other organisations were examined carefully. In addition, the country reports prepared annually by European Commission DG Enlargement were reviewed. Finally, key legislative texts at both European and national level were studied in detail.
- B) **Study trips:** The literary review was supplemented by a study trip to Turku in Finland to work with the Union of the Baltic Cities (UBC). The UBC kindly provided access to their best practice database and also to their network of experts in more than one hundred cities. This network was instrumental in helping to collect the research materials. In addition, I visited the REC in Hungary and am grateful to them for providing access to the wealth of information they have collected on waste management trends in the CEEC and for their work on the City towards EU compliance Award.
- C) **Direct interviews** were conducted with representatives from national ministries, local and regional government, and the European institutions.
- D) **Survey/Targeted Questionnaire:** 12 country-specific questionnaires were developed and distributed to contacts throughout the CEEC. The questionnaires were sent to more than 1000 contacts including academic experts, business representatives, government officials, local politicians and technical experts, NGO activists, and policy makers in European institutions. Respondents were asked to comment on national legislation, provide guidance on finding suitable local initiatives, and recommendations for the European institutions.

The **analysis phase** lasted for a further three months. The **drafting of the final report** has taken three months.

It should be noted that a detailed analysis of waste management policies in the CEEC is a notoriously difficult and frustrating task, severely restricted by a lack of available information. There is a reluctance to share information, and a lack of understanding of the need to co-operate in networks of exchange. This conclusion seems to be shared by other researchers in this field.

General Conclusions

The information presented in this report provides a mixed view of waste management in the EU Accession candidates. There are great differences between and often even within candidate countries. Having said that, there are some recurring deficiencies that are unfortunately common to all 12 countries to one extent or another.

1. **GOVERNANCE** problems – The most striking problem is the failure to communicate. Local authorities rarely communicate with each other, have poor internal co-ordination between municipal departments, and have insufficient systems of consultation with local stakeholder groups. These problems, if left unchecked, will seriously undermine the efforts to implement and enforce environmental legislation.
2. **FINANCIAL** problems – Efficient waste management comes at a cost and this cost is presently too large for most municipalities in the CEEC. The provisions contained within waste legislation (especially those relating to taxes and charges) do not adequately cover the cost of providing quality waste management. Moreover, despite the influx of foreign aid and investment, most notably from the European Union, the bulk of this money remains tied up at the central level. The result is that too little money filters down to the local level where it is needed most.
3. **CAPACITY** problems – There is a significant lack of resources at both the central and the local levels. This translates into a lack of people to ensure compliance and enforcement, a lack of expertise, and most crucially a lack of good practice exchange. Greater efforts need to be made to build capacity by strengthening networks of support throughout the CEEC.

The Report's Authors

The project was commissioned by the **Austrian Association of Cities (Österreichischer Städtebund)** as part of the LOGON II project. Initiated in 1998, the project "CEEC-LOGON - Local Governments Network of Central and Eastern European Countries", aims to use the capacity of Local Authorities Associations to communicate and to intensify information exchange throughout the CEEC. The first stage of the project - LOGON – ran from 1998 until 2000. The second phase - LOGON II - began in January 2002.

LOGON II is carried out in cooperation between the Austrian Association of Cities and Towns as coordinator of the project and the KDZ - Centre for Public Administration Research as implementing partner. The project aims to develop a trans-European network for cooperation, coordination and communication between local authorities associations within the EU and the CEE countries. This network is designed to facilitate an exchange of experience between local authorities, build capacity at the local level, and so enhance local authority preparation for EU membership.

More information on LOGON is available from:

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The final report has been prepared by **Edward Cameron** - Independent Sustainable Development Consultant. Specialising in Governance and Communication in environmental protection, Edward has spent the past five years working on environmental policy in Brussels. In this role, he served as Project Director for the European Commission's Environmental Governance Initiative between December 2001 and June 2003. This involved organising three decentralised conferences - under the Spanish, Danish and Greek EU Council Presidencies respectively - each emphasising national and local participation in Environmental protection. He also recently completed a study entitled "**Local Innovations in the field of Environmental Communication**" on behalf of European Commission DG Environment. This study examines the role of information and communication in environmental policy and presents 20 best practice case studies from the local and regional level taken from 13 European countries. This study can be downloaded from:

http://www.cameronsds.com/portfolio/communication/env_com/

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Finally, I would like to thank Louise Gardiner for editing all of this text from start to finish. Her skills have ensured that complicated material remains accessible and user-friendly. Additional thanks are offered to Claudia Bethin who provided considerable assistance during the research phase of this report.

Waste trends in the CEEC and the demands of EU Accession

Trends in Waste Management in the CEEC

The last two decades have seen significant progress in the field of waste management in the existing 15 Member States that comprise the European Union. Today, policy innovations, coupled with new and improved technologies provide a better spread of options to decision makers. Networks of best practice and organisations with mandates to build capacity at the local level support the development of integrated waste management strategies throughout the EU. Unfortunately, many of these advances have not yet taken root in the 12 EU Accession Candidate Countries (CEECs)¹⁰.

The European Environment Agency estimates that more than 3000 million tonnes of waste are generated in Europe every year. This represents 3.8 tonnes/ capita in Western Europe and 4.4 tonnes/ capita in the CEEC. Total waste quantities are increasing in some CEEC countries (Czech Republic, Hungary, and Poland) and decreasing in others (Estonia and Slovakia)¹¹.

- **Municipal waste** arising in Europe is large and continues to increase. Municipal waste accounts for approximately 14% of total waste arisings in Western Europe and 5% in the CEEC. In the CEEC, municipal waste collection rates are lower than in Western Europe, as a result of different levels of economic resources and different consumption patterns and municipal waste disposal systems. Many parts of the CEEC, particularly rural areas, are not served by municipal waste collection systems. Illegal dumping of municipal waste, particularly in rural areas is also common in many countries¹².
- **Hazardous waste** in the CEEC is a mixed bag. Most countries have witnessed a decrease in levels of hazardous waste. However Slovakia and Latvia have both witnessed considerable increases in the amount of hazardous waste¹³.

¹⁰ European Environment Agency, *Europe's environment: the third assessment (Chapter 7: Waste Generation and Management)*, May 2003

¹¹ Ibid

¹² United Nations Environment Programme (UNEP) Division of Technology, Industry, and Economics, *Global status 2002: Sustainable consumption and cleaner production*

¹³ European Environment Agency, *Europe's environment: the third assessment (Chapter 7: Waste Generation and Management)*, May 2003

- In Western Europe and the twelve candidate countries in central and Eastern Europe, **manufacturing waste arisings** have increased since the mid 1990s in most countries for which data is available. However, some countries in the CEEC, including the Czech Republic, Hungary, Romania, and Slovakia, have produced decreasing quantities of waste from manufacturing industries¹⁴.
- Mining and quarrying waste is the largest single category of waste in Europe, accounting for more than 20% of all wastes generated¹⁵.

Figures for recycling are rather discouraging. The rate of recycling in many countries throughout Europe is minimal. In eight CEEC countries where data exist an average municipal waste recycling rate of 8.6% was reported during the period 1998-2001¹⁶. A major challenge is to establish new, and to some extent more comprehensive, collection and recycling schemes. There is a large potential for co-operation between countries in the CEEC on this issue. Perhaps a greater challenge will be the development of sound and sustainable markets for recycled materials that will ensure the long term viability of recycling systems.

Landfilling remains the dominant waste management method in Europe. One of the reasons could be the reluctance of public opinion to accept incineration as a safe treatment/ disposal option. Some 83.7% of municipal waste was landfilled in the CEEC in 1999¹⁷. In many CEEC countries, landfill capacity is unavailable and waste, including hazardous waste, is accumulating pending the availability of treatment or disposal options. In many instances hazardous waste is sorted under unsatisfactory conditions resulting in increasing risks of industrial accidents, health impacts, and environmental contamination. Compliance with the EU Directive on landfilling is expected to significantly reduce the potential for environmental pollution.

In Western Europe, 17% of municipal waste was incinerated in 1995 and 18% in 1999. In the CEEC, the figures were 2.3% and 6% respectively. The operation of substandard incinerators is widely reported in the CEEC¹⁸. By 1999, within the CEEC, there were only 7 large municipal incinerators (capacity over 3 tonnes/hour) in operation in the Czech Republic, Hungary, Poland and the Slovak Republic; and 3 smaller ones in Poland. 97 incinerators are reported for hazardous waste, of which 22 have a capacity of over 10 tonnes/ day. The main reason for this large disparity between landfilling and incineration can be mainly explained by the fact that landfills are cheaper to construct and operate than incinerators. There is also a lack of investment to build incinerators that would

¹⁴ Ibid

¹⁵ Ibid

¹⁶ Ibid

¹⁷ *Waste Management Policies in Central and Eastern European Countries: Current Policies and Trends*, Project carried out by DHV CR and a team consisting of selected experts from 10 CEECs, October 2000 – July 2001. www.eurowaste.org

¹⁸ European Environment Agency, *Environment in the European Union at the turn of the century*, 1999

fully comply with the EU emission limits. The existing ones (mainly in the Czech Republic) will have to be either phased out or modernised¹⁹.

The basic elements of national waste management plans have been provided for by many CEE countries, generally as part of the accession process²⁰. Several other CEEC countries have formulated waste management plans and programmes. However, the general lack of resources is commonly quoted as a significant barrier to their satisfactory and timely implementation²¹. Command and control measures are widely used in all European countries especially for hazardous waste management. For non-hazardous waste the use of economic or market based instruments is on the increase in WE and the CEEC. An important aspect is to make polluters (i.e. the enterprises or households generating the waste) aware of the costs of their actions and to provide opportunities for alternative options. The most commonly used instruments in the CEEC are *user charges* for the collection, transportation and treatment of municipal waste, and waste disposal charges²². Several countries have introduced *deposit refund schemes* on beverage containers and producer charges on batteries.

In January of this year, the European Environment agency produced a report which claims that many of the problems linked to Europe's growing waste volumes can be solved if countries learn from others that have pioneered solutions. The team of experts who prepared this report argue that sufficient good practice in areas as diverse as waste minimisation, recovery, recycling, and final disposal, exist and that this good practice should serve as guidance for others. Furthermore, the report argues that the challenge for countries in the coming years will be to utilise each others' experiences rather than to try and find new solutions²³.

Dr Hans-Pieter Fahrni, writing in *Waste Management World*, offers further scope for optimism²⁴. He argues that, from a scientific point of view, almost all the knowledge necessary for good waste management practices now exists. For instance, the properties of different types of waste are known, the different processes for recycling and treating these wastes are understood, and testing procedures for the waste for landfilling have been developed. The environmental effects of waste are much better understood, and can be factored into methods of disposal and recovery. However, not all waste management processes make best use of this know-how, due to the perceived costs of doing so.

¹⁹ *Waste Management Policies in Central and Eastern European Countries: Current Policies and Trends*, Project carried out by DHV CR and a team consisting of selected experts from 10 CEECs, October 2000 – July 2001. www.eurowaste.org

²⁰ Ibid

²¹ UNECE, *Environmental Performance Reviews programme, 1995-2002*, www.unece.org/env/epr/

²² *Waste Management Policies in Central and Eastern European Countries: Current Policies and Trends*, Project carried out by DHV CR and a team consisting of selected experts from 10 CEECs, October 2000 – July 2001. www.eurowaste.org

²³ Henrik Jacobsen and Merete Kristoffersen (on behalf of the European Environment Agency), *Case Studies on waste minimisation practices in Europe*, January 2003.

²⁴ Dr Hans-Pieter Fahrni, "Understanding good waste management practices", in *Waste management world*, www.jxj.com/wmw/index.html

So there is a large body of good practice and there is sufficient scientific and technological expertise. And yet significant problems persist. There are two principal reasons for this and they are related to finance and governance. Theoretically, integrated waste management solutions are affordable. Dr Fahrni estimates that the costs of waste management in Western Europe are about 0.5% of the gross national product. The costs of urban solid waste disposal (i.e. costs of collection, transportation and recycling and costs of treating the mixed waste) are about €2 per person per week²⁵. From this, it can be concluded that everybody can afford waste disposal. However, the initial investments for the infrastructure are substantial and it is this initial investment that is severely lacking in Central and Eastern Europe.

The role of government in waste management is significant in all CEECs. The central government is particularly important due to the centralised governmental systems established in the past. However local and regional authorities are also crucial as they bare the ultimate responsibility for implementing and financing environmental policy. Unfortunately, all levels of government suffer from a lack of resources, lack of expertise, and lack of consistent and strategic approaches to environmental policy. There is insufficient dialogue with other stakeholders, poor communication towards the general public, and so a fragmented approach to environmental policy. As Dr Fahrni has correctly stated, there is hardly any other area of environmental protection where every single person can contribute as much to the success of the common strategy as in waste management²⁶. Everybody can learn to collect recyclable goods separately and keep them separated. Used paper, glass, aluminium cans and PET bottles can be collected separately, treated, and then reintroduced to the production process as secondary raw materials. In general, this does not happen in the CEEC and this is the failure of governance.

The Impact of Accession: what are the obligations arising from EU Accession and what will be the effect in the waste sector?

The European Union's body of Environmental Law - known in Brussels jargon as the *environmental acquis communitaire* - covers a wide range of measures, mostly in the form of directives. Directives are the most common form of EU legislation. They set out a specific objective, target, or result which member states must achieve (for example that landfill sites must comply with certain standards) but leave it to member states to decide on specific mechanisms or policies to achieve the desired goal²⁷. In the field of waste management, policy is driven by 17 directives and 1 regulation as well as a number of Commission decisions describing in detail the relevant requirements of the directives.

²⁵ Ibid

²⁶ Ibid

²⁷ For a comprehensive overview of the different forms of EU legislation in the field of environment please see "A Guide to EC Environmental Law" by Dorothy Gillies (EARTHSCAN, 1999)

All directives in the area of waste management may be divided into three groups²⁸. The first group covers directives which establish the general principles for waste management: **Framework Directive 75/442/EEC on waste**, as last amended by Council Directive 91/156/EEC, and **Framework Council Directive 91/689/EEC on hazardous waste**. The second group is concerned with specific waste streams such as the disposal of waste oils; packaging and packaging waste; batteries and accumulators containing certain dangerous substances; the disposal of PCBs and PCTs; and end-of-life vehicles. For more information on the individual waste streams and the EU policy approach to them please consult European Commission DG Environment's website at: http://www.europa.eu.int/comm/environment/waste/waste_topics.htm

The third group covers directives regulating certain methods and installations for waste management such as incineration facilities and landfill sites.

To fully comply with Directives, Member States have to pass national laws which give full effect to the directive within the timetable laid down in the Directive itself. The process of passing national laws to comply with EU Directives is known as *Transposition*. Transposing an EU Directive into national law normally takes around two years. Once this has been done, the Member State is obliged to notify the European Commission that they have passed the required laws. For the accession candidate countries, the transposition of the environmental *acquis* into the national legal order and its implementation are major tasks. The list of areas that need to be addressed within each candidate country includes the following:

- Transposing the full range of Community framework legislation (including access to information and environmental impact assessment)
- Transposing measures relating to international conventions to which the Community is party
- Reduction of global and trans-boundary pollution
- Nature protection legislation (aimed at safeguarding bio-diversity)
- Measures ensuring the functioning of the internal market (e.g. product standards)²⁹

Once transposition has taken place, the new member states must make sure that these laws are complied with in practice. This stage is referred to as *Implementation or Enforcement* and is often the most contentious and difficult phase as it depends greatly on administrative and financial capacity. It is important to note that in passing laws to implement Directives, member states do not need to transpose the Directive word for word into their national legislation. However, they must make sure that the laws passed guarantee the full application of the Directive.

In broad terms, EU environmental legislation covers environmental quality protection, polluting and other activities, production processes, procedures and procedural rights as well as products. Horizontal issues such as environmental

²⁸ European Commission, *Regular Country Reports on progress towards Accession*, 2002

²⁹ European Commission, *Regular Country Reports on progress towards Accession*, 2002

impact assessments and access to information on environment are covered; as are specific sectoral policies on air, waste management, water, nature protection, etc.

A strong and well-equipped administration is required for the application and enforcement of the environmental *acquis*. As we shall see from the country profiles below, this particular issue is a serious concern for administrations in the CEEC at all levels of government (national, regional/ provincial, and local). Substantial adaptation of infrastructure is also required throughout Central and Eastern Europe in the construction of waste sorting, treating, and disposal sites for example.

Negotiations between the European Union and the Accession candidates have been ongoing for many years. These negotiations have centred on the most appropriate ways to ensure full harmonisation and implementation of EU laws in the accession candidates. This has involved developing schedules for transposition as well as discussing transitional exemptions to allow time for building administrative capacity, and developing appropriate infrastructure.

The EU Waste Directives will lead to major changes in handling, treatment and disposal of waste in the candidate countries. The candidate countries have a wide range of ways in which they can choose to implement the set of waste Directives. For example, they can choose to give priority to recycling or to incineration. The main benefits from implementing the Waste Directives are rarely discussed as the candidate countries are obliged to implement the Directives whether they want to or not. However, it is worth noting that the spread of EU environmental law into the new members will produce lower pollution, reduced health problems and healthcare costs, and of course significant benefits to the eco-systems as emissions from waste activities into air, water and soil are reduced.

Under the terms of the accession negotiations, the candidate countries are obliged to transpose the environmental *acquis* into national law by the date of accession. Transition periods have only been granted for implementation of legislation, particularly in cases where significant investments have to be made and/or infrastructure upgraded³⁰.

Cost is a key issue when discussing waste management and it is a factor that is often misunderstood and even misrepresented. The initial investments for waste infrastructure are large, especially when viewed through the limited budgets of municipalities in the CEEC. In particular, the construction of Municipal Solid Waste incineration plants and of well-equipped landfill sites is expensive. However, costs must be considered over a long period of time. According to Dr Hans-Peter Fahrni the costs of urban solid waste disposal (i.e. costs of collection, transportation and recycling, and costs of treating the mixed waste) are about €2 - €3 per person per week. Dr Fahrni argues that cleaning up old, polluting waste deposits may cost more than investment in proper facilities and adequate

³⁰ EUROOPEN (The European Packaging Waste Association), *Status report for the Central and Eastern European Countries - European Packaging and Packaging Waste Law*, www.europen.be/test/members/report_web_4.html

treatment of the waste would have required. All of the available data seems to back this claim³¹.

In total, the European Commission estimates that ensuring compliance with the *environmental acquis* requires an investment of approximately €80 to €120 billion for the ten Central and Eastern European Countries alone. However, according to a study carried out by ECOTEC Research and Consulting Ltd in 2001, implementing the EU environmental directives - and the higher environmental protection they entail - in the candidate countries, will bring significant benefits for public health and reduce costly damage to forests, buildings, fields and fisheries. The estimated total value of the benefits of EU directives for the candidate countries will range from €134 billion to €681 billion³².

The European Union continues to provide financial support to meet these costs through a variety of instruments. In the environment sector, the most important of these is the **"Pre-Accession Structural Instrument" (ISPA)**. ISPA has been funding transport and environmental schemes in the accession candidates since 2000. ISPA's main objective is to prepare the candidate countries for accession. This preparation applies to numerous activities and works at a number of levels. It inevitably involves the transformation of administrations at the national, regional, and local levels. However, the main priority is to support the implementation of EU Directives, particularly those that require infrastructure and/or considerable investment, and that deal with the worst environmental problems. Selected projects need to meet a number of set criteria including community involvement and participation, evidence of a strategic approach, and cost effectiveness. Priority areas for ISPA support include drinking-water supply, treatment of waste water, solid waste management, and air pollution.

ISPA also provides co-financing in the transport sector, facilitating the construction of new transport infrastructure in the candidate countries. Although the vast majority of ISPA money is spent on large scale infrastructure projects, a small portion of money is also kept aside to fund preparatory/ feasibility studies and technical assistance. The European Commission's ISPA Directorate also has a core budget that is used to organise seminars and training workshops dealing with EU legislation, stakeholder co-operation, and financial management.

A total of €1.4 billion/ year will be invested in environmental and transport infrastructure projects via the ISPA programme. This represents a significant step in bringing environmental standards in the CEEC in line with those in existing Member States. The level of financing for each of the 12 Accession candidates will depend on population, per capita GDP and geographical size.

³¹ Dr Hans-Pieter Fahrni, "Understanding good waste management practices", in *Waste management world*, www.ixj.com/wmw/index.html

³² ECOTEC Research and Consulting Ltd, *The Benefits of Compliance with the Environmental Acquis for the Candidate Countries*, 2000 (With the support of the Institute of European Environmental Policy (IEEP), EFTEC, Metroeconometrica, TME, and experts from across the Candidate Countries)

The development of EU policy on waste management – an ongoing process

On 27 May 2003, the European Commission adopted a Communication that will ultimately lead to a thematic strategy on the prevention and recycling of waste³³. The published document focuses on the means to promote more sustainable waste management by minimising the environmental impacts of waste while also taking into account economic and social considerations. The objective of this Communication is to launch a process of consultation, involving the EU institutions and European stakeholders active in the field of waste management, in order to contribute to the development of a comprehensive and consistent policy on waste prevention and recycling.

Concretely the Communication will

- Assess the environmental context for waste management, in particular trends in waste generation, the main environmental impacts of waste.
- Describe the Community's existing waste policy, its achievements and areas which can be improved or further developed.
- Analyse the role of target setting in the context of an overall approach to prevention and recycling.
- Introduce a framework for the future thematic strategy and highlight the main issues for discussion as part of the latter's development.
- Set out the challenges facing waste management in the context of the enlargement of the EU.
- Indicate that the final Thematic Strategy will be subject to an extended impact assessment.
- Describe future steps in the development of the strategy.

Stakeholders are invited to provide comments on this Communication, and to make more general comments or suggestions concerning issues relevant to waste prevention and recycling. Comments can be submitted to the European Commission at the following address, preferably by email in a widely used format (plain text, MS Word, Adobe Acrobat PDF, HTML, etc.) until 30 November 2003 by: **env-waste-strategy@cec.eu.int**

Follow up and further information

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³³ COM (2003) 301. Source: European Commission DG Environment.

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The European Environment Agency hosts one of the most useful and comprehensive resources on waste management in Europe. For more information please refer to:

http://themes.eea.eu.int/Environmental_issues/waste

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Country Profiles

Presenting the 12 EU Accession Candidates

The 12 countries currently preparing to join the European Union are often presented under the collective term of “CEEC”. This term is misleading for two reasons. First and most obvious is the fact that only ten of the twelve are situated in Central and Eastern Europe. Second is the reality that there are huge differences between - and often within - these countries. This is particularly true in the case of environment and waste management. The countries presented below are different in their approaches, in their progress, in their use of tools, and in their application of waste management techniques and laws. Some are quite advanced while some lag far behind. Some have integrated administrative systems while others are fragmented and relatively ineffective. In each profile we have provided information on the key actors and drivers, details of the progress on transposition and implementation of EU legislation, and where possible, information on some particularly relevant and successful local projects. In addition, we provide contact details for some of the key reference points on waste management within each country.

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Bulgaria

Background and overview

The current state of environmental management in Bulgaria gives reasons for optimism. The last few years have witnessed encouraging decreases in emissions of pollutant substances and significant overall improvement in the environment. Credit for these improvements go to economic restructuring, better systems for monitoring and controlling polluters (including closure or modernisation of polluting enterprises), and the construction of new waste treatment facilities.

However, in certain areas there are still problems to be addressed. There is a danger that the current economic slowdown and shrinking production levels could offset progress made in environmental management. In addition, several key issues still need to be resolved. These include the Kozloduj nuclear power plant 200km north of Sofia, and air quality in big cities such as Sofia and Plovdiv. In addition, there is a need for better consultation and information for industry on its responsibilities and obligations³⁴.

Current efforts are focused in several main areas:

- Air pollution from industrial emissions
- Rivers polluted from raw sewage, heavy metals, detergents
- Deforestation
- Forest damage from air pollution and resulting acid rain
- Soil contamination from heavy metals from metallurgical plants and industrial wastes.³⁵

From a governance perspective, these efforts have so far been characterised by: Transposition of the EU environmental acquis into Bulgarian law: the process of transposing the framework legislation in the areas of water, air and waste has been almost accomplished.

- National and local sectoral programmes to implement legislation. The National Programme for the implementation of the EU Directives requirements, together with its investment plans, has been adopted.
- Development of relevant institutions and administrative capacity for the implementation of legislation.
- Combining the requirements for environmental protection with the restructuring of the economy and the development of the market economy.
- Informing and attracting public engagement in environmental problem solving.³⁶

³⁴ European Commission, *Regular Report on Bulgaria's progress towards Accession*, 2002

³⁵ Milieukontakt Oost-Europa

Actors and Drivers

The **Ministry of Environment and Water** is the competent authority responsible for the development and implementation of the national waste management policy. It prepares and presents a *National Waste Management Programme* and has overall responsibility for its implementation. The Ministry also prepares an annual report on waste management, which is included in the State of Environment Report. In addition, the ministry participates in the financing of waste management projects by providing grants and credits from the National Environmental Protection Fund.

The **Executive Environment Agency (EEA)** within the Ministry of Environment and Water is responsible for the collection and processing of data on waste management generation and disposal. Information is stored in a database of municipal and construction waste, including information on, among other things, the location of landfills, occupied territories, quantities of accumulated waste, and serviced settlements. The database forms part of a **National Information System**, linking it to local databases in the regional inspectorates³⁷. In addition to data collection, the EEA is also responsible for the development of waste characterisation standards and the establishment of a national laboratory system for waste³⁸.

The **Regional Inspectorates of Environment and Water (RIEWs)** are the Ministry's specialised bodies for environmental control. The RIEWs are responsible for the issuing of permits for waste management activities and for operation of waste disposal installations. There are 15 RIEWs and 3 directorates of National parks, under whose territorial scope fall several administrative regions. The Regional Inspectorates are responsible for:

- Observing and implementing environmental legislation.
- Supporting the municipalities in preparing and the realising local policy for environmental protection.
- Informing the public about the state of the environment.
- Issuing decisions on environmental impact assessments for sites and activities of regional importance, and of permits for activities and installations for treatment of waste.³⁹

The municipalities organise and control the generation, collection, storage, transportation and disposal of municipal and construction waste. They are also responsible for the landfilling of industrial and hazardous waste. The municipal councils adopt regulations setting forth the procedures and conditions for collection, loading, storage, recovery and disposal of municipal and construction waste on their territory. They also set the local fees and charges for waste

³⁶ Ministry of Environment and Water of the Republic of Bulgaria, *National Strategy Environment Sector of the Republic of Bulgaria*, October 2000

³⁷ Executive Environment Agency of Bulgaria

³⁸ *Accession negotiations – Bulgaria Common Position*, Negotiation Chapter 22 on environment

³⁹ Ministry of Environment and Water (October 2000)

collection, transportation and disposal. The municipal councils approve and present to the RIEW the *municipal waste management programmes*⁴⁰.

The municipal bodies play an important role in the implementation of environmental policy. With this in mind, their main functions include:

- Development of environmental protection programmes.
- Development and implementation of local policy on the collection, transportation and safe disposal of municipal waste.
- Control over the disposal of waste and hazardous substances on their territory.
- Responsibility for the construction, maintenance and operation of urban wastewater treatment plants.
- Informing the public about the state of the environment.
- Ensuring that environmental protection legislation is observed by small facilities of local importance⁴¹.

The National Environmental Protection Fund (NEPF) is the main source of funds for co-financing of projects with international funding and projects implemented with local financing. Through various mechanisms, NEPF experts monitor and control the full implementation cycle of the projects selected for investment, and, together with experts from the regional bodies of the Ministry of Environment and Water, participate in inspection commissions for the approval of the implemented projects. The NEPF experts also participate in the evaluation committees for future projects.⁴²

Civil Society clearly plays an important role in promoting efficient waste management processes in Bulgaria. There are 350 registered environmental NGOs in Bulgaria. However, the actual number is most likely greater as new NGOs are constantly being registered, and some active environmental groups are not officially registered. Bulgarian environmental NGOs are almost entirely dependent on (mostly external) donors for funding. NGOs are also dependent on local and national authorities for cooperation on activities that require governmental cooperation⁴³.

Bulgaria currently imports used glass, plastics and paper for recycling. In addition, internally, a large number of small companies operate collection points for recyclable materials, paying for the material received at fluctuating prices. The municipalities are not involved in any way with collection for recycling. It is estimated that up to 5000 people make their living from scavenging material for recycling⁴⁴. These factors will all need to be considered when developing modern waste separation and collection systems.

⁴⁰ *Accession negotiations – Bulgaria Common Position*, Negotiation Chapter 22 on environment

⁴¹ Ministry of Environment and Water (October 2000)

⁴² Ibid

⁴³ Milieukontakt Oost-Europa

⁴⁴ EUROPEN - The European organisation for packaging and environment, *Status Report on European Packaging and Waste Law*, www.europen.be

Policies:

The 1997 *Law on Limitation of the Harmful Impact of Waste on the Environment*⁴⁵, together with the regulations foreseen in it, creates the legislative basis for transposition and implementation of the EU legislation in the waste management sector in Bulgaria. In accordance with this framework Law, a number of regulations have been developed and adopted during the period 1998-2002. They ensure the harmonisation of the national legislation with the EU regarding specific types of waste and installations for waste disposal⁴⁶. They include new regulations on *batteries and accumulators, waste oils, and sewage sludge*, as well as amendment of the regulation regarding *permission for import, export, and transit of waste*⁴⁷. Another important step being taken by the Environment Ministry is to amend the national *Waste Law* to align the definitions with those in the EU framework Waste Directive and to improve enforcement and increase penalties⁴⁸.

During the accession negotiations in 2001, the Bulgarian government requested transitional measures on the *Packaging and Packaging Waste Directive*⁴⁹ and on the *Landfill of Waste Directive*⁵⁰. The Bulgarian government has asked for 2012 to be the deadline for meeting the targets in the *Directive on Packaging and Packaging waste* (Directive 94/62).

A *National Waste Management Programme* was adopted by the Council of Ministers in 1999. It forms part of the National Strategy for the Environment and Action Plan 2000-2006. The programme complies with and implements the requirements of the EU Council *Directive on waste (75/442/EEC)*. It comprises a specific Action Plan for waste, which states the measures required in the short and medium term, the responsible institutions, the needed financial means, and the legal framework outlining the obligations of the municipalities and companies that carry out waste management activities. At present, 250 *municipal waste management programmes* (92%) are approved and have been presented to the Ministry of Environment and Water⁵¹.

⁴⁵ State Gazette No 86 /1987, as amended – State Gazette No 28/2000

⁴⁶ *Accession negotiations – Bulgaria Common Position*, Negotiation Chapter 22 on environment

⁴⁷ European Commission, *Regular Report on Bulgaria’s progress towards Accession*, 2002

⁴⁸ EUROOPEN - The European organisation for packaging and environment, *Status Report on European Packaging and Waste Law*, www.europen.be

⁴⁹ *Accession negotiations – Bulgaria Common Position*, Negotiation Chapter 22 on environment

⁵⁰ Ibid

⁵¹ *Accession negotiations – Bulgaria Common Position*, Negotiation Chapter 22 on environment

In 2002, the process began of updating the programme for the 2003-2006 period⁵². The programme sets the following priorities for solid waste management policy:

- Waste minimisation
- Improvement of waste collection and transport systems, with a clear preference for a single central coordinating organisation
- Development of recycling facilities
- Waste neutralisation (with the objective of developing facilities for incineration with energy recovery or environmentally sound landfills)
- Improvement of the environmental standards of existing landfills⁵³

At municipal level, the following initiatives are planned:

1. Replace the existing large number of small landfills with regional ones by 2010, and implement high technical standards at municipal waste landfills.
2. Close existing landfills that don't comply with the Directive 99/31/EC requirements by 2015.
3. Develop a programme to reduce biodegradable waste going to landfills after 2002 and conduct promotional campaigns for composting.
4. Implement separate collections schemes to guarantee more waste recycling and recovery, and establish financial mechanisms to generate sufficient financial resources (e.g. product charges and deposit schemes; incentives based on VAT and profit tax for waste recovery and recycling).
5. Enact bans on landfilling some recyclable waste after 2006.
6. Enlarge organised waste collection systems, which should cover the whole territory of the country, by 2007-2010.⁵⁴

The EU dimension - Progress on European Acquis Communautaire and support for improvements

Bulgaria has made substantial progress in achieving alignment with the *acquis*. The development of approximation programmes and implementation strategies has continued. And efforts have been made towards the integration of environment into other policies, notably at the local level⁵⁵. However, much still needs to be done, specifically in terms of transposition of the *acquis* in a number of areas including waste management⁵⁶. Focus areas for improvement include developing more effective and sustainable financing strategies, and strengthening the institutional framework for implementation⁵⁷.

⁵² Bulgarian Ministry for Environment and Water, *State of Environment Report 2003*

⁵³ EUROOPEN - The European organisation for packaging and environment, *Status Report on European Packaging and Waste Law*, www.europen.be

⁵⁴ Ministry of Environment and Water (October 2000)

⁵⁵ European Commission Regular Report on Bulgaria's progress towards Accession 2002

⁵⁶ Ibid

⁵⁷ Ibid

In terms of funding, the European Union contributed almost €300 million on an annual basis between 2000 and 2002 (€100 million from PHARE, €53 million from SAPARD, and between €83 million and €125 million from ISPA)⁵⁸. In addition to its annual PHARE allocation, Bulgaria receives additional PHARE funding in the context of the understanding reached in November 1999 on early closure dates for units 1-4 of the Kozloduy nuclear power plant. The agreement foresaw additional PHARE funding of €200 million over the period 2000-2007, subject to certain conditions being met⁵⁹.

Initiatives

Setting up a registration system for waste suitable for recycling

Upon the approval of the Act on *Limiting the Harmful Impact of Waste on the Environment* and the respective regulations (1998-2001), the Bulgarian government set about developing an improved information system on waste. The current legislation imposes strict requirements to recycle suitable types of waste. However, effective reporting and decision-making is hampered by the absence of a registration system for waste, suitable for recycling. As part of a linked new regulation for packaging, one of the main items is the development of database software for this purpose⁶⁰. The project will strengthen the assessment and decision-making ability of staff in the Ministry of Environment and Water.

Environmental content sharing in South Eastern Europe - The BlueLink Information Network for NGOs

Collaboration between environmental NGOs in Bulgaria takes various forms, including partnerships in project development and implementation, collective campaigning, pooling human and financial resources on specific issues, and information exchange. Cooperation is most active and developed in the areas of bio-diversity, Bulgarian accession to the European Union, and lobbying and information sharing regarding environmental legislation⁶¹. To facilitate and better assess the full extent of cooperation, the **BlueLink Information Network** was created in 1998 as a joint initiative of eight non-governmental organisations from five major Bulgarian cities. The network provides a virtual forum for NGOs and anyone interested in the environment to exchange information and ideas towards the common goal of sustainable development.⁶²

⁵⁸ European Commission, *Regular Report on Bulgaria's progress towards Accession*, 2002

⁵⁹ European Commission, *Regular Report on Bulgaria's progress towards Accession*, 2002

⁶⁰ Executive Environmental Agency

⁶¹ Milieukontakt Oost-Europa

⁶² www.bluelink.net

Assessment and future direction

The National Strategy for the Environment and Action Plan 2000-2006 states that waste pollution in and around settlements is one of the most serious aesthetical and hygiene problems in Bulgaria⁶³. In addition, the Strategy also points out that the fees collected at the municipal level do not adequately cover the cost of collection and disposal. This leaves a serious funding shortfall and has led many to suggest that the decentralisation of competencies has not been matched by a decentralisation of funds.

Implementation of environmental policy is entrusted to the regions and municipalities - a level, at which there are still major weaknesses. In addition to the funding crisis, there is also an administrative and capacity problem. There is a lack of human resources as well as a lack of management tools and basic equipment such as computers. Training is needed on the requirements of the *acquis*. Regional inspectorates need to be reinforced, notably as regards waste management and nature protection. Awareness at regional and local level should also be improved. Dialogue and co-operation with NGOs and local populations remains limited, especially in terms of access to information and of the environmental impact assessment procedure⁶⁴.

This deficiency at the local level is matched by insufficient enforcement and coordination at the national level. Meeting the requirements of the environment sector requires enhanced efforts and cooperation between the various ministries and with other relevant organisations. Most European issues are dealt with in a centralised **European Integration Unit** in the Environment Ministry. Coordination with other ministries remains strongly dependent on the resources allocated, in particular by the Ministries of Agriculture and Health. The Ministry of Environment needs to be strengthened.

The national programmes for investments that have been finalised to date must be followed by concrete results on the ground. Further progress needs to be made regarding transposition and implementation, in particular as regards landfills and incineration of waste⁶⁵. There are as yet no energy recovery facilities in Bulgaria, and Turkey remains the only neighbouring country able to reprocess imported packaging waste. Consequently, the country will rapidly have to achieve self-sufficiency with regards to recycling.

⁶³ National Strategy for the Environment and Action Plan 2000-2006 (pg 20)

⁶⁴ European Commission Regular Report on Bulgaria's progress towards Accession 2002

⁶⁵ Ibid

Sources and Resources

European Commission Directorate General for Enlargement

Directorate C - Bulgaria Team

Morten Jung-Olsen (Head of Unit)

Brice de Schietere (Environment, Energy, Transport policy, Industrial and SME policy, nuclear safety, permanent secretary for sub-committees 3 and 6)

<http://europa.eu.int/comm/enlargement/bulgaria/index.htm>

European Commission, *Regular Report on Bulgaria's progress towards Accession, 2001 and 2002*

http://europa.eu.int/comm/enlargement/report2001/bu_en.pdf

http://europa.eu.int/comm/enlargement/report2002/bu_en.pdf

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www.europen.be

Milieukontakt Oost-Europa

<http://www.milieukontakt.nl>

Cyprus

Background and Overview

Progress in environmental policy in Cyprus in recent years is characterised by two main trends: 1) integration of environmental issues horizontally across other policy areas, and 2) a recent boost to the number of practical steps taken to implement environmental policy. In agriculture, measures have concentrated on the appropriate use of fertilisers and pesticides, the assignment of a feasibility study for the installation of an incinerator for animal carcasses, the relocation of animal husbandry units and the setting up of the legal framework for the promotion of organic cultivation⁶⁶. In energy, Cyprus encourages the development of renewable energy sources (primarily solar and wind) and promotes energy efficiency measures in all sectors. The latter has included the erection of a wind turbine by the electricity authority of Cyprus. In addition, a series of fiscal measures have been put in place to help polluters adopt more environmentally friendly processes. Similar approaches have been adopted in the transport and tourism sectors⁶⁷.

In contrast, the European Commission's progress report on the candidate countries, published in October 2002, cites waste management as "the most worrying issue in Cyprus" in terms of harmonisation. Responding to this, a number of legal and practical steps have been taken to improve the country's overall waste management. Construction works for the central sewage system and waste treatment plants in Larnaca, Paphos, Ayia, Napa, Paralimni and a number of rural centres are already under way. Work has also begun on the design of the greater Nicosia central sewage system⁶⁸.

Shortly after the publication of the report, Cyprus Interior Minister Andreas Panayiotou announced a 4-year programme for closure or upgrading of landfills. This will involve the creation of two new landfills, one in Paphos and one in Larnaca, to be operated in line with EU directives. In addition, landfills at Kotsiatis and Vati will be upgraded, while others will be closed. A further comprehensive programme will be implemented for gradually reducing the overall volume of waste for landfilling through recycling, composting and incineration for producing energy⁶⁹.

⁶⁶ European Commission, *Regular Report on Cyprus' progress towards Accession 2002*, November 2002

⁶⁷ Ibid

⁶⁸ Ibid

⁶⁹ *Cyprus Mail*, 11 October 2002, <http://www.cyprus-mail.com/October/11/news15.htm>

At the moment, there are recycling programmes in place for beverage containers but not for paper and board. Economies of scale mean that it is not yet feasible for Cyprus to run many forms of domestic recycling. Consequently, most of the material collected is exported, and the island has been encouraging energy recovery as a short-term solution until a full recycling system can be put in place.

Actors and Drivers

The highest level for environmental management in Cyprus is the **Council of Ministers**, which has the overall responsibility for the formulation of environmental policy. The Council of Ministers further includes

- The **Council for the Protection of the Environment**, chaired by the Minister of Agriculture, Natural Resources and Environment.
- The **Environment Committee**, which deals with the formulation and determination of environmental policy objectives and is chaired by the Permanent Secretary of the Ministry of Agriculture, Natural Resources and Environment.
- The **Environment Service**, which is the coordinating agency for government programmes for the protection of the environment. It also heads the technical committee on the environmental impact assessment of projects, advises on environmental policy, and is mandated to ensure the implementation of environmental policy⁷⁰.

The **Ministry of Agriculture, Natural Resources and Environment (MANRE)** is responsible for the rational management and sustainable use of natural resources as well as being the coordinating ministry for the protection of the island's environment. Competencies relating to specific sectors are shared with other Ministries (Interior; Labour and Social Insurance; and Commerce, Industry and Tourism). The MANRE and the **Ministry of Interior (MI)** are jointly responsible for the island's solid waste management. The MANRE is responsible for issues related to recycling and treatment of hazardous waste and the MI for the general framework directive on waste and landfills.

Currently the MANRE, in close co-operation with the **Union of Municipalities**, is working to implement immediate measures for the next three years (2003-2005) to achieve the targets set by the *Packaging and Packaging Waste Directive*. In order to support and encourage local authorities and private recycling companies to participate, the government will subsidise the programme with €2.8 million. This will be used to buy containers, and to cover transport and segregation costs. The proposal is based on the results and conclusions of the *Household Recycling Partnership programme*.

⁷⁰ The Ministry of Agriculture, Natural Resources and Environment of Cyprus, <http://www.pio.gov.cy/>

The Ministry of Interior is currently working closely with individual districts to improve existing landfills, and to plan and operate new ones. It is also responsible for preparing terms of reference for each district - within the framework of the EU Directives and the Athens Polytechnic study - for private companies willing to propose solutions for recycling, production of energy from waste, and composting.

Domestic solid waste management is the responsibility of the **local authorities**. The municipalities have full responsibility for collection and disposal of waste, but still have to get government approval for any important and financial decisions they make. The only source of income for waste management is the collection fees received from households and the services and industrial sectors. Borrowing money from banks is not an unusual way for municipalities to finance projects.⁷¹

Policies:

Cyprus has endorsed the principles of sustainable development and has undertaken a process to integrate environmental considerations in its economic and social development policy. In this process, the country is guided by the principles adopted at the Rio Conference and the European Union's respective policies. With this in mind, action has been taken in the areas of

- Water Policy (Water use and conservation, central sewerage and sewage treatment, reuse of treated effluent for irrigation, water development, water desalination)
- Industrial pollution control (industrial waste treatment, environmental impact assessment, environmental awareness and information, etc.)⁷²

One of the most important pieces of environmental legislation so far prepared by the Cyprus government is the *Framework Law on the Environment and the Protection of Nature*. Among other things, the law covers the principles to guide all environment-related or specific legislation, the allocation of responsibilities for environmental protection, the adoption of the *polluter pays principle*, as well as the areas of environmental impact assessment, information, participation and research, reduction in waste generation, waste treatment and recycling, and hazardous waste.⁷³

Lack of specific legislation on waste management is one of the factors limiting recycling efforts and efficiency in Cyprus. The recently launched *Household Recycling Partnership programme* and the *Packing and Packaging Waste Act*, which came into force in January 2003, are important steps towards addressing this deficiency. However, similar progress is needed regarding hazardous waste, supervision and control of shipments of such waste, as well as batteries and accumulators containing dangerous substances. The pending legislative bills covering these areas should be adopted soon⁷⁴.

⁷¹ CEDARE and Environmental Management Consultants LTD, *Regional Study on Policies and Institutional Assessment of Solid Waste Management in Cyprus*, December 2000

⁷² MEDACT-APHRODITE - www.sat.uoa.gr/medact/

⁷³ Ibid

⁷⁴ European Commission, *Regular Report on Cyprus' progress towards Accession, 2002*

The *Packing and Packaging Waste Act* has set targets of 50%-65% recovery and 25%-45% recycling by 2005. The legislation gives companies a choice between individual compliance and joining a recovery system. Local authorities will be able to set up their own systems should they choose to do so. The regulations will set out the criteria for government approval if industry decides to set up a collective compliance system⁷⁵.

The provisions of the European Directive on the list of waste and hazardous waste have been transposed in the form of the *law on Environmental Impact assessment* of April 2001⁷⁶. In addition, on 12 September 2002, the Council of Ministers approved legislation required by EU directives for the management of solid and hazardous waste. The legislation provides for a number of measures on the management of hazardous and non-hazardous public waste, household, packaging material and industrial waste, among others. It will also include management of old tyres, electrical appliances and used mineral oils, making manufacturers responsible for waste management.

The EU dimension - Progress on European Acquis Communautaire and support for improvements:

Thanks to a strong national programme, adoption and transposition of the environmental *acquis* is well under way in Cyprus. In the area of waste management in particular, it is believed that the country has all the necessary elements for the implementation of EU waste legislation. Cyprus has already prepared the legal framework for adoption and has ratified all related international treaties. In addition, a *National Strategic Plan* has been laid out, and preparations for the adoption of EU waste legislation are being discussed in the House of Representatives. Practical steps taken so far include the construction of new landfills, and the launch of a National Pilot Project related to the recycling of waste.

The application and implementation of the *acquis communautaire* is the complete responsibility of the central government. The most important EU directives related to solid waste management have already been transposed to the national legislation. In addition, the Athens Polytechnic has completed a comprehensive study dealing with the design of a national strategy on waste management.

Another important achievement for Cyprus has been in strengthening its administrative capacity. In spring 2001, additional staff was allocated to the Environmental Service of the Ministry of Agriculture, Natural Resources and Environment. This increased capacity, coupled with opportunities to engage private services, has enabled the ministry to launch 11 implementation programmes (covering CO2 strategy, ozone substances strategy, waste management strategy, environmental information, IPPC and chemical substances, habitats, EMAS, PCBs, nitrate pollution, and design of the Pathos

⁷⁵ EUROOPEN (The European organisation for packaging and environment) - www.europen.be

⁷⁶ European Commission, *Regular Report on Cyprus' progress towards Accession, 2002*

landfill) and to begin setting up another 5 (packaging, hazardous waste, batteries, landfills assessments, and waste water systems design)⁷⁷.

The annual cost to Cyprus to implement the *acquis* on waste management is expected to reach €62 million. The complete implementation of a comprehensive waste management plan, as provided by law, will cost between €60 million and €70 million⁷⁸. Important areas of focus in the coming period will be implementation and enforcement.⁷⁹

Initiatives:

The Life-Household Recycling Partnership programme

Launched in January 2000, the programme aimed to develop sustainable ways of managing recyclable household waste through the implementation of a pilot project for the sorting and collection of 3 different kinds of paper, 2 kinds of glass, 2 kinds of plastic, and aluminium. The main partners in the project were five municipalities (Agios Dometios, Latsia, Limassol, Mesa Getonia, and Polis Chrisochous) and the Recyclers Association.

The results of this partnership project have been encouraging. A high level of public awareness on recycling issues and participation is now reported within these participating cities. In addition, there has been a marked improvement in relations between local authorities and private recycling companies. A number of areas in need of future work and improvement have also emerged. First, at present, it is not possible to depend on the public for proper segregation. More instruction and greater efforts at mobilisation are required. Second, collection containers must be adapted to the existing recyclers' infrastructure. Third, a core comprehensive political framework for recycling needs to be developed.

Assessment and future direction

One of the main problems faced by Cyprus in meeting the demands of the accession process is administrative capacity at the national level. This is largely due to the country's small size. Competence for the main requirements of the *acquis* has been clearly identified, but the administrative system is fragmented at national level where most regulatory activity occurs. Specific challenges include integration of permit issuing, and inspection functions. Either the restructuring of powers or the adoption of an adequate formal integration mechanism should be considered as solutions. Despite the recent strengthening, staff resources remain weak⁸⁰.

⁷⁷ European Commission, *Regular Report on Cyprus' progress towards Accession*, 2002

⁷⁸ *The Cyprus Mail*, 13 September 2002, www.cyprus-mail.com/September/13/news7.htm

⁷⁹ European Commission, *Regular Report on Cyprus' progress towards Accession*, 2002

⁸⁰ *Ibid*

On the implementation side, current waste management practices are generally insufficient and ineffective. Recycling, in particular, is seriously inhibited by the lack of infrastructure for treating recyclable materials in the country. Existing recycling companies are private businesses operating independently. The only remaining option, namely exporting the material, means very high costs compared with any other European country.

At the municipal level, although the collection and disposal systems could be considered quite efficient, there is still much to be done to implement solid waste management according to the requirements set by EU directive. New collection trucks need to be purchased in order to collect the various separated recyclable materials. Investments in sorting and transfer stations need to be made in both equipment and personnel. Finally, the new system needs to be publicised effectively in order to engage the responsible and effective participation of citizens⁸¹. However, new efforts are being directed at managing waste in a sustainable manner. These will include a full assessment of the current situation as regards the waste covered by the European Waste Catalogue and waste management programmes. Consequently, considerable investments in the order of €100 million are envisaged in this sector.

Sources and Resources

European Commission Directorate General for Enlargement

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The Government of the Republic of Cyprus

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⁸¹ CEDARE and Environmental Management Consultants LTD, *Regional Study on Policies and Institutional Assessment of Solid Waste Management in Cyprus*, December 2000

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MEDACT-APHRODITE

A project funded by the European Union (E.U.) in the framework of the Life Programme to support collaboration between Cyprus and Greece regarding the adjustment of the Cypriot environment policy and legislation to the relevant policy and legislation of the European Union, and the promotion of sustainability in the national policy of Cyprus. The project is co-ordinated by the Environment Service of the Ministry of Agriculture, Natural Resources and Environment of Cyprus together with the University of Athens.

www.sat.uoa.gr/medact/

Czech Republic

Background and overview

The Czech Republic boasts a rich natural and cultural inheritance, which has benefited from a high level of conservation thanks to legal and other frameworks for its protection. Around 16% of the country is taken up by national parks and other protected areas. In the last decade, new environmental legislation and new structures providing administrative and economic tools for environmental improvement have been introduced⁸². Nevertheless, a number of problems still remain.

According to the Czech Environmental Institute, the reduction in pollution during the past ten years is predominantly a result of "end of pipe" solutions rather than the "greening" of production or the inhabitants' lifestyles⁸³. Privatisation of large polluters (energy, mining, metallurgy) has happened without necessary attention being paid to the greening of production, with the inevitable negative impact on the environment of the subsequent growth in industry. If left unaddressed, this situation will become aggravated by the coming enlargement, which will put the country in an ideal position to attract investment in low-cost mass production. On top of everything, there is a general lack of concern among state authorities, as well as citizens and stakeholders, regarding environmental sustainability⁸⁴.

In the waste management field, landfill is the most extensively used method of waste disposal. In addition, there are 79 hazardous waste and three municipal waste incinerators. Consequently, only a small percentage (3% of hazardous waste in 1999)⁸⁵ is incinerated with energy recovery. Moreover, as new waste continues to accumulate, the country still faces old environmental burdens such as unsecured dumps and fly tips.

⁸² Czech Environmental Institute, *Sustainable Development Strategy for the Czech Republic – "From Economic Growth to Sustainable Development"*, 2002

⁸³ The Czech Environmental Institute (CEI) is one of the grant service organisations of the Ministry of the Environment of the Czech Republic. The task of the CEI is to provide information and expert support in the field of environmental protection.

⁸⁴ Czech Environmental Institute, *Sustainable Development Strategy for the Czech Republic – "From Economic Growth to Sustainable Development"*, 2002

⁸⁵ Zdenek Svoboda on behalf of the Central and Eastern Europe Business Information Centre (CEEIBC), *Environmental Costs of EU Accession in the Czech Republic*, April 2001

Actors and Drivers

The **Ministry of the Environment** is the central public administration authority in the waste management sector. It executes supreme state supervision, with the exception of public health protection in waste management. Its responsibilities include

- Acting as the Basel Convention focal point and the competent authority for waste export, import and transit.
- Collecting and processing information on waste types and quantity, methods of waste management and waste management facilities, and places of hazardous waste gathering.
- Making these records available to the public.
- Drawing up the *National Waste Management Plan* for approval by the government, and providing regular updates on its progress to the European Commission⁸⁶.

The **Ministry of Health** executes state administration in the area of public health as it relates to waste management. It also authorises legal entities or natural persons for the assessment of hazardous properties of waste⁸⁷. The **Czech Environment Inspectorate (CEI)** is the body mainly responsible for enforcement of environmental rules.

As regards administrative capacity at central level, in January 2001, **14 regions** were created, with the result that competences and staff began being transferred from the Ministry and the **District Offices** to the regions and municipalities.⁸⁸

In April 2001, the Ministry of environment established an **inter-ministerial commission on reporting** in line with the reporting Directive.

Policies:

The updated *State Environment Policy*, adopted by the Czech government in January 2001, aims at ensuring the integration of the environment into other policy areas. The programme follows the EU 6th *Environmental Action Programme* and provides the basis for the *National Strategy for Sustainable Development*. The Strategy sets out general targets and measures in specific fields of environmental protection. It has the following priorities:

- Implement principles of sustainable development
- Meet all necessary criteria for preparation of the Czech Republic for EU Membership
- Solve economic aspects of environmental protection
- Carry out international co-operation in solving global environmental issues
- Improve enforcement of environmental protection

⁸⁶ European Topic Centre on Waste and Material Flows, European Environment Agency, <http://waste.eionet.eu.int/>

⁸⁷ Ibid

⁸⁸ European Commission, *Regular Report on Bulgaria's progress towards Accession*, 2002

- Enhance public administration in this field
- Introduce closer co-operation between various governmental and non-governmental actors in environmental protection (Parliament, local government, NGOs, industry)
- Foster environmental research and education⁸⁹.

In March 2001, the Czech government adopted an *Act on Environmental Impact Assessment*. This Act entered legal force in January 2002⁹⁰.

In May 2001 a new *Waste Act* was adopted, which also came into force in January 2002. The Act focuses on the following areas:

- Waste prevention, recycling and energy recovery
- Export, import and transit of waste
- Treatment of enumerated wastes (waste oils, batteries, PCB, sludge, car wrecks, etc.)

The *Waste Act* provides the legislative framework for the reform of the current waste management system. It regulates the rules on the prevention of waste creation and waste management, as well as compliance with environmental protection, health protection and sustainable development aspects. The Act also outlines the rights and obligations of persons active in waste management, and the jurisdiction of the public administration bodies.

The *Act on Packaging and Amendment of Certain Other Acts (no. 477/2001)* was adopted on 4 December 2001. It transposes the *EC Packaging and Packaging Waste Directive* and replaces the voluntary agreement which previously governed the operation of the EKO-KOM 'Green Dot' system. From mid-2002, manufacturers and importers could no longer place packaging or packaged goods on the Czech market unless the packaging conformed to the essential requirements in the *EC Packaging and Packaging Waste Directive*⁹¹. Those placing packaging or packaged goods on the market must prepare a written declaration of compliance for their customers. The pack must be marked or labelled to indicate the material of which the pack is made, and how it should be disposed of. The Act empowers the government to specify products or types of packaging on which deposits must be charged. Those placing packaging or packaged goods on the market are required to guarantee take-back by providing an adequate number of collection points and suitable access to them, taking account of local conditions and population size. They must also guarantee the recovery of the taken-back packaging waste to targets set out in the Act. Secondary legislation concerning the quotas for the recovery and recycling of packaging waste and an inventory of equipment concerning PCBs/PCTs has been adopted⁹².

⁸⁹ The Institute for Environmental Policy (IEP)

⁹⁰ European Commission, *Regular Report on Bulgaria's progress towards Accession*, 2002

⁹¹ EUROOPEN – The European organisation for packaging and environment, www.euroopen.be

⁹² European Commission, *Regular Report on Bulgaria's progress towards Accession*, 2002

Implementation of *Council Directive 96/61/EC on integrated pollution prevention and control (IPPC)* is being prepared. The Directive's main objective is application of preventive measures to eliminate or reduce emissions from certain activities into the air, water and soil. This includes measures pertaining to waste and is aimed at reaching a high level of environmental protection as a whole. Approximately 1540 facilities operating in the Czech Republic fall within the regime of integrated pollution prevention and control. Issuance of permits for existing facilities will probably be divided into stages during a transition period. New facilities must fully comply with the Act from its coming into effect on the day of accession to the EU⁹³.

The EU dimension - Progress on European Acquis Communautaire and support for improvements:

The technical infrastructure for implementing environmental legislation, such as data collection and environmental monitoring is currently of a relatively high standard, but needs to be upgraded. A high level of compliance has been achieved for monitoring air emission, control of radiation protection resources, nature conservation, and limitations on noise. However, monitoring in the water sector - particularly regarding groundwater - needs strengthening⁹⁴.

The Czech government has adopted and updated directive-specific implementation plans, which take into account the progress made to date. It has also adopted investment strategies for certain water and waste legislation. In 2000, investments in the field of environment decreased by approximately €0.6 billion corresponding to approximately 1.04% of GDP. At the same time, the **State Environment Fund** invested €81.5 million into the environment, mostly into water and air pollution projects⁹⁵.

Government estimates put the total figure for harmonisation of Czech law with EU environmental standards at over €5 billion. The European Commission's 1999 report estimates the cost at €10.5 billion. According to Czech Government official estimates, the cost of EU accession in the field of waste management may amount to €600 million. Local, public and private sources will cover about 80-85% of these expenditures. The rest will come from different international programmes and loans such as ISPA, PHARE, SAPARD, and investments from the EIB⁹⁶.

⁹³ Zdenek Svoboda on behalf of the Central and Eastern Europe Business Information Centre (CEEBC), *Environmental Costs of EU Accession in the Czech Republic*, April 2001

⁹⁴ European Commission, *Regular Report on Bulgaria's progress towards Accession*, 2002

⁹⁵ Ibid

⁹⁶ Zdenek Svoboda on behalf of the Central and Eastern Europe Business Information Centre (CEEBC), *Environmental Costs of EU Accession in the Czech Republic*, April 2001

Initiatives:

Greening the packaging supply chain

Global retail and food service operator, Royal Ahold, owns more than 200 supermarkets and hypermarkets in the Czech Republic⁹⁷. An important part of the company's business strategy is focused on reducing the environmental impact of its operations and addressing environmental concerns in the supply chain⁹⁸. With this in mind, Ahold's Czech packaging specialists have built on the experiences of their Dutch counterparts at Albert Heijn and set about improving co-operation with suppliers to reduce waste from packaging. Waste from packaging, truck fleet maintenance and unsold products is an important environmental impact of the retail and foodservice sectors. Reducing waste streams, through minimisation of packaging, recycling and other efficiencies, is therefore a basic environmental responsibility. It also offers an economic opportunity. Waste generation is an indicator of inefficiency. Waste reduction programmes save money and more efficient transport packaging can lighten workloads. Therefore, good waste management can contribute to cost optimisation and productivity gains.

Ahold companies comply with local legislation on waste management and aim to reduce the waste streams they generate. They separate and recycle materials as much as possible given the facilities available in their operating area. In addition, Ahold companies will often create new possibilities for better environmental management when adequate external facilities are lacking, and actively engage their customers in recycling activities and packaging reduction initiatives. In 2001, the Royal Ahold/ Albert Heijn packaging guidelines were translated and modified to fit the needs of the Czech Republic, and subsequently distributed to all private label suppliers. The following are some of the results of the initiative:

- In order to make recycling easier, private label manufacturers are now using brown packaging boxes with paper closing strips rather than printed white boxes and plastic closing strips.
- Ahold Czech Republic worked with the private label supplier of mineral water to develop a new lighter bottle. This translated into savings of 30 tons of PET plastic as well as efficiencies in the supply chain.
- Ahold worked with a private label snack food supplier and its packaging material vendor to develop smaller boxes, which make handling easier and translate into supply chain efficiencies and ergonomic gains.

⁹⁷ www.ahold.com

⁹⁸ *CSR Magazine*, July 2002

Assessment and future direction

Contrary to trends in the rest of Europe that have seen environmental policy become more and more integrated across different policy areas, environmental issues are becoming increasingly marginalised in the Czech government. In many instances, competences have been transferred from the Ministry for Environment to other bodies, such as the economic ministries. The result is subordination of environmental goals to short-term economic priorities. This is compounded by a general lack of acceptance and real application of the country's *Sustainable Development Strategy*. Consequently, recommendations by the Ministry for Environment remain weak in impact⁹⁹.

The recent administrative reform between national, regional and local bodies will have its own impact. The abolition of district offices and the resulting shift of competencies to the newly established regional authorities and municipalities pose significant challenges to the implementation of the acquis. One of these is the need for clarification of competencies. Another is the need for adequate administrative capacity. At present some 1500 people are enforcing environmental legislation on the district level. It is thus important to match the transfer of responsibilities to regional authorities with the sufficient transfer of staff and the provision of adequate equipment and logistics. Current administrative overlaps in inspection activities should also be addressed¹⁰⁰.

Additional challenges faced regarding the environment include

- Insufficient development and transfer of new, environmentally friendly technologies.
- The growing amount of waste and its harmful properties.
- Inconsistent implementation of the precautionary principle in the development of new products, especially products from the chemical industry, biotechnology, gene manipulation and other possible potential sources of threat to biological life.

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European Commission Directorate General for Enlargement

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⁹⁹ Czech Environmental Institute, *Sustainable Development Strategy for the Czech Republic – "From Economic Growth to Sustainable Development"*, 2002

¹⁰⁰ European Commission, *Regular Report on Bulgaria's progress towards Accession*, 2002

Estonia

Background and overview

The current state of the environment in Estonia can be attributed to the unfortunate historical combination of poor resource management and the thriving of material and energy intensive industries. By the beginning of the 1990's, the use of outdated technologies, the low cost of raw materials and energy, and the short-sightedness of agriculture and industry planning had combined to cause a crisis in the state of Estonia's environment¹⁰¹. At the time, Estonia was among the world's biggest emitters of CO₂ and SO₂ per capita, water resources were used inefficiently, and a national waste management system was still under development¹⁰². Today it remains one of Europe's biggest producers of industrial and power production waste per capita, and generates the most hazardous waste per capita (4 tonnes/ year) of any European country. In 2000, the country produced 6 million tonnes of hazardous waste as determined by Estonian law¹⁰³.

However, things have begun to improve. A decrease in industrial production has led to the amount of waste generated to fall by nearly a quarter since 1992. There has also been a significant increase in the amount of waste used for composting, land spreading and energy recovery. In 2000, 164 000 tonnes of waste was incinerated in Estonia, and 94% of that amount with energy recovery. Incineration of waste for production of energy has gradually increased. However, it is still largely made up of waste timber. Only 0.2% of the total amount of municipal waste collected in 2000 was incinerated waste, while the volume of hazardous waste incinerated was 3100 tonnes, of which 2700 tonnes were incinerated with energy recovery (mainly oil waste)¹⁰⁴.

The most important work still to be done relates to the closure and improvement of landfills. In recent years, the volumes of mixed municipal waste collected and deposited have stayed around 0.5 million tonnes. Nearly a half of the collected municipal waste originates from households and a half from enterprises¹⁰⁵. However, the need to improve standards in anticipation of accession to the EU has spurred the country to set about creating a network of landfills that conform to the requirements of the EU landfill directive.

¹⁰¹ Estonian Ministry for the Environment, *Estonian National Report on Sustainable Development*, 2002, www.envir.ee/saastev/05.pdf

¹⁰² European Environment Agency, 1999

¹⁰³ Ibid

¹⁰⁴ Estonian Ministry for the Environment, *Estonian National Report on Sustainable Development*, 2002, www.envir.ee/saastev/05.pdf

¹⁰⁵ Pille Jõekaar and Helle Haljak, Estonia Ministry of the Environment, 10 January 2003

Actors and Drivers

The Ministry of Environment has primary responsibility for elaboration and implementation of Estonian environmental policy. This includes establishing the legislative framework for waste handling. The ministry also issues licences for the handling of hazardous waste and controls trans-boundary shipments of hazardous wastes.

The Waste Department is responsible for general waste handling management, development of hazardous waste handling systems, issuing waste handling permits and packaging recovery issues. In this regard, it also guides and co-ordinates development and implementation of related policy, prepares draft legislation, selects projects, pursues international cooperation, and organises in-service training and waste counselling. A large part of the work of the Waste Department is to manage the harmonisation of Estonia's waste acts with the relevant EU legislation and plan necessary implementation measures. The Department outlines development plans for the waste management facilities network and makes proposals for financing such objects from the state investment programme. It is also active in drawing up the draft *waste programme* to be financed through the **Environmental Investment Centre**¹⁰⁶.

The Estonian Environmental Inspectorate (EEI) is the body responsible for supervising the implementation of legal acts and regulations in the whole environmental area, including fisheries and forestry. In addition, new legislation enables the EEI to punish offenders in the waste and water sectors, including legal persons. The only two other bodies with supervisory competencies in the environment are the **Estonian Radiation Centre** (for radiation issues) and the **Estonian Land Board** (for matters concerning land use). The EEI has seven regional departments. Currently, the total number of staff in the Inspectorate is 230¹⁰⁷.

The **Environmental Monitoring Programme** was revised and renewed in autumn 2000. The Programme has 13 programmes, which in turn comprise 82 sub-programmes¹⁰⁸.

The Ministry of Environment is in turn made up of a further 15 structural units at county level, taking the form of **Regional Environmental Authorities (REAs)**. The REAs are instrumental in the implementation of waste legislation - through policies and relevant action programmes at county level - and in communicating *county waste management plans* on behalf of the Ministry. The REAs are also responsible for issuing waste permits¹⁰⁹.

The **municipalities** are responsible for organising the collection, transport and disposal of municipal waste in accordance with their local legislation and waste

¹⁰⁶ Estonian Environment Information Centre, www.envir.ee/eng/index.html

¹⁰⁷ European Commission, *Regular Report on Estonia's progress towards Accession*, 2002

¹⁰⁸ Ibid

¹⁰⁹ European Environment Agency Topic Centre on Waste and Material Flows

management plans. They are also responsible for providing collection points for hazardous waste and ensuring subsequent transport to controlled transfer stations or treatment facilities. The local governments prepare *local waste management plans* for their areas based on the *county waste management plan*, and in turn provide information for the preparation of the national and county waste management plans. Each municipality is also responsible for processing and providing recommendations on applications for waste permits before forwarding them to the REA¹¹⁰.

Policies:

In 1997, the Estonian Parliament approved a *National Environmental Strategy*, which identifies the most urgent environmental problems facing the country and sets objectives for addressing them. The Strategy focuses on the following priorities:

- Support sustainable use of raw materials
- Reduce generation of waste and facilitate recovery of waste
- Reduce environmental pollution due to waste and areas polluted with waste
- Improve waste management, especially hazardous waste management¹¹¹.

With these in mind, a *National Environmental Action Plan* was drawn up and approved by the government in 1998. Updated for 2001–2003, the revised Action Plan emphasises accession to the EU and introduction of the principles of sustainable development as the top priorities for Estonia¹¹².

On 4 December 2002, the Estonian Parliament approved the *National Waste Management Plan*. Based on the EU directives 75/442/EEC and 91/689/EEC, the Plan provides the basis for organising and improving waste management over the next 5–10 years¹¹³. Firstly, by establishing an adequate country-wide network of waste management facilities, and, secondly, by ensuring a high level of environmental and health protection¹¹⁴. The *National Waste Management Plan* deals not only with the implementation of measures to achieve national waste management objectives. It also embraces international co-operation and optimisation of waste management¹¹⁵. To succeed, the Plan will need to achieve the following goals

- Establish an integrated system of waste management
- Effectively apply alternative low-waste technologies
- Optimise the existing network of waste management companies
- Substantially enhance recovery of waste¹¹⁶.

¹¹⁰ Ibid

¹¹¹ Estonian Ministry for the Environment, *Estonia's Environmental Strategy*, www.envir.ee/eng/strategy.html

¹¹² Estonian Ministry for the Environment, *Estonian National Report on Sustainable Development, 2002*, www.envir.ee/saastev/05.pdf

¹¹³ Ibid

¹¹⁴ Pille Jõekaar and Helle Haljak, Estonia Ministry of the Environment, 10 January 2003

¹¹⁵ European Environment Agency Topic Centre on Waste and Material Flows

¹¹⁶ Estonian Ministry for the Environment, *Estonian National Report on Sustainable Development, 2002*, www.envir.ee/saastev/05.pdf

aquatic environment, nitrate pollution from agricultural sources, and meeting microbiological parameters for drinking water¹²¹. So far, steps have been taken to set up a modern network of waste management facilities, including the construction of new landfills to comply with EU standards and closing of small dumping sites; and to develop a system for managing hazardous waste¹²².

Estonian waste management legislation is largely in compliance with the *acquis*, apart from several directives that still need to be implemented. These include the directives on *packaging and packaging waste*, the *landfill of waste*, *disposal of end-of-life vehicles*, and *waste incineration*. However, these will be accomplished by the date of accession¹²³. While progress has been made in alignment and implementation of environmental legislation, efforts are still needed to strengthen administrative capacity, particularly at local level, and to improve enforcement of environmental legislation¹²⁴.

For the years 2000-2002, total financial assistance to Estonia amounted annually to approximately €30 million from Phare, €12.1 million from SAPARD, and around €35 million from ISPA. This money has gone towards, among other things, establishing a Natura 2000 network in line with the Habitats directive, and funding the improvement of water management and wastewater treatment in Tartu, Viljandi, Narva and Parnu¹²⁵.

Initiatives:

Cross-boarder waste management planning initiative

In developing a waste management plan for Järvamaa County in 1994, a unique collaboration was launched between the Estonian and Danish Ministries of Environment. In Estonia, waste transport is organised with direct contracts between waste producer and waste management company. Moreover, there are no fixed jurisdiction requirements for waste management companies. Consequently, in the case of Järvamaa County, a Danish consultant company, COWI, was contracted to establish a new landfill that would comply with all environmental requirements, as a precondition for closure of all existing non-compliant landfills. The Danish Environmental Agency decided to support the project in 1996.

The project partners included the environmental department of County Government and 13 of the 16 local authorities that form the Association of Järvamaa municipalities. The detailed plan was prepared in co-operation with COWI after a geological survey and the selection of a site, and ensures compliance with the EU landfill directive. The cooperation project is still running and will include the development of a complete waste management network for Järvamaa County¹²⁶.

¹²¹ European Commission, *Regular Report on Estonia's progress towards Accession*, 2002

¹²² Ibid

¹²³ Pille Jõekaar and Helle Haljak, Estonia Ministry of the Environment, 10 January 2003.

¹²⁴ European Commission, *Regular Report on Estonia's progress towards Accession*, 2002

¹²⁵ Ibid

¹²⁶ Pille Jõekaar and Helle Haljak, Estonia Ministry of the Environment, 10 January 2003.

Packaging Excise Tax Law of 19 December 1996

Excise taxes have been imposed on packaging for beer, wines and spirits since March 1997 and were extended to packaging for soft drinks, juices, waters and flavoured milk from December 1998. The tax is high in relation to product prices in Estonia, so it provides a real incentive for manufacturers to meet the criteria for exemption. Packaging is exempt from the excise tax if at least 60% is collected and reused, recycled or used as a fuel. 50% of the revenues from the excise tax go into the State Budget and the other 50% go into the Environment Fund, to be used for additional financing for the handling of packaging and packaging waste. The government tried to extend the scope of the tax to other types of packaging, but decided this was impracticable. There was a subsequent proposal to amend the *Packaging Excise Tax Law* to raise the threshold for exemption from the existing tax from 60% to 70%, but this was abandoned¹²⁷.

The *Packaging Excise Tax Law* has been the driving force behind the development of a packaging waste management system in Estonia, but it is estimated that in 2001 only about 14% of packaging waste (mainly beverage containers) was collected and recycled. There is a voluntary deposit system for collecting returnable containers, cans and plastic bottles. To secure the excise tax exemption, manufacturers of beverage packaging pay waste management companies to collect their used packaging. The charge per pack for recovery has fallen from around 20%-40% of the excise tax rate and is now no more than 6%-8% of the tax. Recovery options in Estonia are still very limited. Plastics, board and metals have to be exported for recycling abroad. There are no waste incineration plants, nor concrete plans to build any, though co-incineration is a possibility. It is hoped that the Baltic States will be able to formulate a joint plan for the development of recovery infrastructure¹²⁸.

Assessment and future direction

One of the biggest problems facing Estonia in terms of waste management relates to implementation of the directive on *landfill of waste*. In particular, the disposal of oil shale ash derived from the generation of energy in specialised landfills. Approximately 5 million tonnes of oil shale ash is produced in Estonia annually. Oil shale ash is regarded as hazardous waste in Estonia due to its corrosivity. The waste is deposited in landfills in the form of strongly alkaline slurry. Estonia has been granted a transitional period until 16 July 2009 to meet EU standards for landfilling of oil shale ash from energy production. This relates to more than 90% of the hazardous waste generated in Estonia. Intermediate targets for the quantity of oil shale ash that can be landfilled in non-compliance with EU provisions have been set out. Consequently, Estonia is under pressure to develop and put in place new technology for landfilling of oil shale ash in time for the new deadline¹²⁹. The overall inability of most of Estonia's landfills to meet the

¹²⁷ EUROOPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

¹²⁸ Ibid

¹²⁹ Pille Jõekaar and Helle Haljak, Estonia Ministry of the Environment, 10 January 2003.

EU's high environmental standards mean that the cost of transportation of wastes is expected to be up to five times higher and ultimately impact on the price of waste treatment for enterprises and households¹³⁰.

Estonia also faces some challenges regarding the directive on *packaging and packaging waste*. Development of a system of collection and recovery of all types of packaging waste is under elaboration. So far, the targets set by the *Packaging Act*, which was adopted on 30 June 2001, have not been met. These included recovering at least 50% of the total weight of packaging waste and at least 25% as material. However, the 1997 *Packaging Excise Act* has been effective in motivating enterprises to collect and recover the beverage packaging and packaging waste. Other types of packaging are currently not recovered systematically because of the lack of an economic mechanism that would motivate the users of packaging and importers of packaged goods to recover the packaging¹³¹. The common consensus is that legal obligations are not sufficient to change behaviour and production/consumption habits, and more stringent enforcement measures are needed.¹³²

Finally, the administrative capacity and co-ordination between bodies in the environmental sector on all levels (state, regional and local) needs to be strengthened, particularly at local level in the smaller municipalities¹³³.

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¹³⁰ European Commission, *Regular Report on Estonia's progress towards Accession, 2002*

¹³¹ Pille Jõekaar and Helle Haljak, Estonia Ministry of the Environment, 10 January 2003.

¹³² Estonian Environment Information Centre, www.envir.ee/eng/index.html

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Hungary

Background and overview

A unique characteristic of Hungary is its controversial division into 19 counties plus the capital Budapest. This extreme regionalisation is based on a thousand year-old county structure and creates significant challenges in terms of environmental and other forms of administration. For instance, as territorial entities, the counties are too small to correspond to the principles of the Regional Policy and of the Structural Funds of the EU¹³⁴. In 1998, the government passed a *Law of Regional Development* to try to address this problem by creating seven official regions. However, these fail to reflect characteristic regional identities, and many of the old administrative overlaps and confusions still occur.

The Region Central Hungary is the smallest among the 7 Hungarian regions, but is home to 28% of the population (approximately 2.8 million people, of which 1.84 million live in the capital Budapest)¹³⁵. In addition, the city receives 2 million visitors annually. As is typical of such a big urban centre, the capital relies heavily on surrounding settlements in using land for waste disposal purposes. Hungary has only one site for waste incineration, which is located in Budapest and processes 60% of all the collected municipal solid waste of the city. In the early 90s, there were still 4 landfills in the territory of the capital, all of which have been filled up and closed. For the disposal of the rest of the municipal waste of Budapest the landfills of the surrounding Pest County are used.¹³⁶

In addition, the country has around 20 composting plants with capacities of between 3000 and 50 000 tonnes per year. Another 15 are under development for bio-waste. For anaerobic digestion some trials are running for the bio-gasification of sewage sludge together with manure. A first pilot scale mechanical-biological pre-treatment plant was built up in 2001 with positive results.¹³⁷

¹³⁴ Fleischer, T and Futo, P. (January/March 2003) *The impact of EU integration on Hungarian environmental policies: Social Network Analysis of waste management in the Region Central Hungary*, Budapest: ADAPT Project, http://www.vki3.vki.hu/~tfleisch/PDF/pdf03/ADAPT-HU-SNA-ENVIRO_030327.pdf

¹³⁵ Futo and Fleischer, 2003

¹³⁶ Ibid

¹³⁷ European Compost Network, *Hungary Country report*, www.compostnetwork.info/countries/hungary.htm

Actors and Drivers

Responsibilities for environmental protection are divided between **six different Ministries** including the **Ministry of Environment**, each of which has various implementing bodies at regional and national level.¹³⁸ In addition, responsibilities are shared among **12 Regional Environmental Inspectorates (REIs)**, **19 counties**, **7 regions** and **9 national parks**.

The **Chief Inspectorate** is a ministerial office with an independent budget line, acting at the national level. It is the second instance body, as well as issuing permissions such as licences on import/export of hazardous waste.¹³⁹

The **regional inspectorates** are governmental bodies with a separate budget, acting at regional level. They are responsible for environmental permits and, together with the national park directorates, are first instance bodies.

In terms of solid waste management, the **local governments** have primary responsibility, with less significant responsibilities being given to county and regional authorities. The 1991 *Act on Local Governments* transferred the ownership of local utilities, including waste disposal sites, from the central government to the country's more than 3000 local governments, with the result that the latter also assumed responsibility for managing municipal waste¹⁴⁰. In addition, they are expected to ensure the disposal of abandoned waste and maintain public areas through regular services. Local governments provide waste management services either through their fully owned local utility companies or through private utility firms. In some cases, local actors have entered into inter-municipal cooperation schemes to organise the collection, processing and disposal of wastes in order to benefit from economies of scale.¹⁴¹ The *2000 Law on Waste Management* enables local governments to enter into cooperation or association contracts (in accordance with the *Association Act*) with each other in order to perform their public service duties.

The **county governments** are responsible for promoting environmentally sound waste treatment within the territory of the county. In particular, they must

- Develop a county waste treatment plan
- Select suitable areas for waste treatment and disposal (In cooperation with the local governments)
- Collect and harmonise the waste management plans of the municipal governments
- Cooperate with other county governments in accomplishing waste management tasks
- Promote and support the establishment of joint waste treatment sites of local governments.¹⁴²

¹³⁸ European Commission, *Regular Report on Hungary's progress towards Accession*, 2002

¹³⁹ Ibid

¹⁴⁰ Futo and Fleischer, 2003

¹⁴¹ Ibid

¹⁴² Ibid

The **National Environmental Council (NEC)** ensures the integration of the environment into other policies and the overall promotion of sustainable development. Comprising representatives from the scientific community, NGOs and industry, the NEC is an advisory body to the government and gives input to planned legislation and programmes in all fields. Environmental issues are also being considered in the formulation of Hungarian economic strategy and sectoral development programmes.¹⁴³

The country's complex environmental administrative system is held together by detailed administrative acts, procedures and relatively well-established practices, which facilitate cooperation between the different Ministries, authorities and institutions. In addition, an **inter-ministerial working group** meets on a regular basis to discuss issues relating to the transposition and implementation of the environmental acquis.¹⁴⁴

Policies:

The *Act on an Environment Product Fee*, adopted in June 1995, requires packaging fees to be paid by the first distributor, user or importer, according to the weight and type of material. The fee applies not only to packaging materials but also to other waste producing products, such as tyres, cooling devices and coolants, batteries and fuels. The aim of the fee is to encourage and fund actions that will improve resource management¹⁴⁵. Companies are exempt from the tax if they meet strict targets. However, today, very few companies are able to qualify for relief on the tax¹⁴⁶.

Initially, 75% of this product fee was allocated via a **Central Environment Protection Fund** to packaging waste management activities, with the remainder being used to fund administrative support. However, in 1998, the Hungarian parliament converted the fee into a tax, and has subsequently diverted 60% to balancing the national budget. The remainder of the revenues still goes to the Fund, and is paid out to waste management companies for the collection and recovery of commercial and industrial packaging waste. This arrangement has been criticised because it is not in conformity with EU requirements. The Act has since been amended again, and from January 2003 it will apply to 'packaging' rather than to 'packaging materials'. As a result, it will affect producers of packaged goods as well as producers of packaging¹⁴⁷.

The *Waste Law of 2000* requires that manufacturers of products that eventually become waste, as well as producers or holders of waste must pay the waste treatment costs or dispose of the waste according to the *polluter pays principle*. This has led to the establishment of specific waste management companies, co-owned and run by big manufacturer and trade companies producing a substantial amount of waste. In addition, the *Waste Law* requires waste management utility firms and operators of waste treatment facilities to verify the environmental and technical conformity of landfills through environmental audits.¹⁴⁸

¹⁴³ European Commission, *Regular Report on Hungary's progress towards Accession*, 2002

¹⁴⁴ Ibid

¹⁴⁵ EUROPEN – The European organisation for packaging and environment - www.europen.be

¹⁴⁶ Ibid

¹⁴⁷ Ibid

¹⁴⁸ Futo and Fleischer, 2003

The *Waste Management Act*, which came into force in January 2001, harmonises Hungarian waste management legislation with the relevant part of the EU acquis, including the *Packaging and Packaging Waste Directive*. In addition, it authorises not only the Hungarian government but also local authorities to issue a decree requiring producers to collect waste selectively and to mark the product to facilitate waste management. The Act also provides a timeframe of Hungary's implementation of the EU packaging recovery and recycling targets. All parties covered by the obligation are to ensure that not less than 50% of packaging waste is recovered and at least 25% recycled, with at least 15% of each material recycled, by 30 June 2005. This is the date envisaged for complete implementation of the *Packaging and Packaging Waste Directive's* provisions¹⁴⁹.

The *Decree on Packaging and Packaging Waste* was adopted in May 2002 and came into effect on 1 January 2003. Packaging which does not comply with the Decree must be withdrawn from circulation by 1 January 2004. Take-back, recycling and recovery will be the responsibility of the packer or filler. In the future, this might be extended to include the distributor.

The EU dimension - Progress on European Acquis Communautaire and support for improvements:

Hungary has so far achieved a high level of success in aligning with the EU environmental acquis. At the end of 2001, the *Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters* (the Aarhus Convention) was integrated into Hungarian legislation. In terms of waste management, the acquis has been transposed in a number of areas: in October 2001, Hungarian legislation was aligned with the EC landfill Directive¹⁵⁰; a Ministerial Decree on the *list of wastes* entered into force in January 2002; and the *law on waste* and the *law on packaging and packaging waste* were adopted in May 2002¹⁵¹. Additional transposition has occurred with regard to incineration of waste, and waste from the titanium-dioxide industry.

For the years 2000 to 2002, total financial assistance to Hungary amounted annually to around €96 million from Phare, €38.7 million from SAPARD and between €72.8 and €104 million from ISPA. The ISPA programme's contribution for Hungary amounted to €88 million in 2000. The support was divided equally between environment and transport. In the environment sector, two areas for national priority intervention have been identified, namely wastewater treatment and solid waste disposal¹⁵².

¹⁴⁹ EUROPEN – The European organisation for packaging and environment - www.europen.be

¹⁵⁰ European Commission, *Regular Report on Hungary's progress towards Accession, 2002*

¹⁵¹ Ibid

¹⁵² Ibid

Initiatives:

The Miskolc Regional Waste Management project

The Miskolc Regional Waste Management project is an initiative designed to promote sustainable development in the poorest region of Hungary by implementing a state-of-the-art waste management system. The project encompasses the city of Miskolc and 37 settlements in the Borsod-Abaúj-Zemplén County. With a population of 262 000 inhabitants and an annual waste volume of 313 000 tons, the area is currently home to illegal dumps and unmanaged settlement related landfills with inadequate technical protection. This poses particular problems for the surroundings of Miskolc city, which are sensitive to surface and sub-surface aquifer contamination.

The new waste management project will go a long way to addressing these problems by gradually reducing the waste volume to be deposited by half. One third of total waste will be re-cycled after treatment (composting) into the natural cycle, and the existing non-compliant dumps and landfills closed down. The major features of the project are:

- A central regional waste management facility at Hejőpapi, including a landfill for non-hazardous waste
- Gradual implementation of selective waste collection and recycling
- Composting plant
- Remediation and closing-down of the central Miskolc-Nádasrét landfill and of 18 inadequate settlement landfills by December 2003

Anticipated benefits of the project include:

- Protection of surface and ground water resources
- Protection of national parks and development of tourism
- Improvement in the health and hygiene conditions of the population
- Improved air quality and landscape.

The main costs for the project relate to construction and development totalling €9.8 million, and machinery and equipment amounting to €1.8 million. Of the eligible investment cost, 20% will be borne by the central government and 10% by the local authorities¹⁵³.

Assessment and future direction

The main obstacle to environmental alignment in Hungary remains the country's complex county structure and the administrative problems caused by extreme regionalisation and decentralisation. There continues to be overlap and confusion about the roles and capacities of the six ministries and various regional and national implementation bodies. As a result, environmental tasks are fragmented and a significant amount of unnecessary work is done. The system is in desperate need of a complete rationalisation, particularly with regards to

¹⁵³ European Commission Directorate General for Regional Policy, *Overview of ISPA projects in Hungary*

permitting, compliance checking and enforcement tasks, and for more and better allocation of staff to ensure adequate monitoring and enforcement of legislation¹⁵⁴.

At the current rate of improvement, it is expected that Hungary will have difficulty meeting its target of 50% recovery in 2005. Very little household packaging waste is currently recovered. As the country only has one municipal waste incinerator, any increase in the recovery rate for household packaging waste can only be achieved through a comprehensive system for separate collection and sorting¹⁵⁵.

On the ground, much still needs to be done to improve waste disposal facilities at municipal level, particularly with regards to hazardous waste. Hungary has 728 registered landfills, but only 6 currently conform fully to EU standards (67 are in the process of upgrading). Many low capacity local landfills struggle to meet the level set by the *acquis*, and a large number of illegal ones still exist. Further efforts are also needed to harmonise the management of hazardous waste and shipment of waste in and from the EC¹⁵⁶.

As regards planning and programming, a number of plans still have to be established such as the *National Waste Management Plan*, regional plans (by the REIs), local plans (by the municipalities) and individual waste management plans (by the different operators). Finally, greater awareness of the importance of waste management needs to be raised among smaller and medium sized companies and their trade associations. SMEs still lag behind big companies in terms of compliance and innovation in waste management¹⁵⁷.

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¹⁵⁴ European Commission, *Regular Report on Hungary's progress towards Accession, 2002*

¹⁵⁵ EUROOPEN – The European organisation for packaging and environment, www.europen.be

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Latvia

Background and overview

The situation in Latvia is characterised and severely hampered by the lack of an effective and integrated national waste management system. Overall, it is estimated that Latvia produces almost 600,000 tonnes of waste annually, of which two thirds is residential waste and one third produced by institutions and enterprises¹⁵⁸. Riga, alone, is home to a third of the country's population, but produces 40% of the country's total household waste. The amount of construction waste, hazardous household waste, medicine waste and hazardous waste is also relatively high. However, only about 55% of the total waste produced is centrally collected¹⁵⁹ and only 60% of the Latvian population has access to waste collection services. The result is that waste is dumped illegally in forests, along roadsides and beside water. Much of this waste goes unregistered because the government lacks a reliable waste inventory.

Waste from Riga is mainly dumped at the Getlini dumping site located in the territory of the Stopini rural council, 15 kilometres southeast of Riga. The Getlini dumping site is located in a place that is unsuitable for this particular purpose from geological and hydro-geological points of view. Financial resources for the management of waste are based on payments made by individuals and legal entities¹⁶⁰.

The possibilities for household waste recycling in Latvia are limited. In order to turn waste into a resource, it needs to be sorted. At the moment, only a few small waste sorting pilot projects are being run (in Riga, Jelgava, Valmiera and Liepāja regions). In Riga, sorting of waste is carried out in the municipal waste landfill at Getliņi. Waste is separated into cardboard, glass containers, ferrous and non-ferrous metals, and polyethylene. These materials are later pressed together and transferred for recycling. Getliņi only transfers around 2% of total disposed waste for further recycling. In March 2001, the Vidzeme received its first waste collection and sorting centre. Located at Valmiera, the site sorts glass, plastics, paper scrap, metal, tyres and other materials¹⁶¹.

There is relatively little packaging production in Latvia, which relies heavily on imports. Consequently, in the last ten years there has been a dramatic increase in the amount of imported packaging and an increase in more complex packaging, not subject to recycling. The impact of this trend is compounded by

¹⁵⁸ Latvian Environment Agency, *Environmental Indicators in Latvia*, 2002
www.vdc.lv/soe/2001_eng/faktori/atkritumi/atkritumi.htm

¹⁵⁹ Ibid

¹⁶⁰ Ibid

¹⁶¹ *Third National Communication of the Republic of Latvia under United Nations Framework Convention on Climate Change*, 13 November 2001

insufficient legislative acts or action plans for reducing the amount of waste at the place where it is produced. The country has little recycling capacity and no energy recovery. Moreover, those recyclers of paper and board and plastics who are operating find it more economical to use material from countries where collection is subsidised than locally collected material¹⁶².

Actors and Drivers

The **Ministry of Environmental Protection and Regional Development** is the main body responsible for Environmental policy in Latvia. Within the Ministry, several specialised bodies have been established. These include the **Strategy and Information Unit**, the **Latvian Environment Agency**, the **Monitoring Council of GMOs**, the **Council of Packaging Management** and the **Radiation Safety Centre**.

Access to environmental information and reporting falls under the responsibility of the **Latvian Environment Agency**. The Agency was created following a decision in September 2000 to merge the Environment Consultation and Monitoring Centre and the Environmental Data Centre¹⁶³. The job of the Agency is to implement national policy in the area of environmental data and information compilation, processing and dissemination. Its main tasks include

- Establishing the national environment information system
- Developing the system of environment quality testing laboratories
- Guaranteeing public rights to free access to environmental information.

The **Council of Packaging Management** was established in December 2000. The Council evaluates programmes submitted by enterprises concerning collection of packaging waste and co-operates with NGOs working in the field of packaging management¹⁶⁴.

At local level, the **municipalities** are responsible for household waste management in each administrative territory. Collection and storage of household waste is mainly done by municipal enterprises in Latvia, with **private companies** serving nearly 50% of the residents of Latvia¹⁶⁵. Nature protection and enforcement of environmental laws are the responsibilities of the **Environmental Protection Inspectorates**.

Policies:

In preparation for accession to the EU, Latvia has implemented significant changes to its environmental laws in recent years. This is particularly true in the waste management sector. A Regulation on *Management of Municipal Waste*

¹⁶² EUROOPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

¹⁶³ European Commission, *Regular Report on Latvia's progress towards Accession*, 2002

¹⁶⁴ Ibid

¹⁶⁵ Latvian Environmental Protection Fund, *Strategy for Sustainable Development of Latvia*, 13 August 2002

Landfills was passed on 2000. In 2001, regulations were passed relating to the *Means for Waste Recycling and Landfilling*, and on *Requirements for Incineration of Waste and Incinerator Plants*. Moreover, in September 2001, regulations were passed to improve the permitting system for waste collection, storage and transfer¹⁶⁶.

In July 2002, a new *Packaging Law* came into force, which sets requirements on packaging, packaging waste collection, reuse and recycling. Transposing the EC *Packaging and Packaging Waste Directive*, the law makes packaging producers responsible for the management of packaging waste, and requires that commercial users provide information on the packaging materials they use. To do this, they may join an approved organisation, or they can choose to register with the Ministry of Environment and Regional Protection as individual compliers. In the latter case, they will need to organise their own packaging waste collection and recovery, and report annually to the Ministry on progress with implementation of their corporate action plan¹⁶⁷.

The government has additional plans to establish a deposit-refund system as a mechanism to promote packaging reuse¹⁶⁸. Provisions in this regard came into effect on 1 January 2003. In Latvia, packaging is currently subject to a *Natural Resources Tax*, which operates in tandem with subsidies for recycling and reuse. These subsidies have stimulated the collection and recycling of glass and polyethylene packaging, but they conflict with international trade rules¹⁶⁹.

In March 2003, a new *Waste Management Law* entered into force, which transposes the basic requirements for waste and hazardous waste according to EU Directives. Based on this law, work is currently under way to draw up a *National Waste Management Plan*, including setting up a much-needed waste information collection, management and analysing system. The plan will focus on encouraging waste prevention through

- Use of best available techniques
- More efficient use of resources
- More prudent consumer behaviour
- Access for all residents to a centralised household waste management system
- The return of waste products to the economy, i.e. through recycling¹⁷⁰.

¹⁶⁶ The Bulletin, The quarterly magazine of the REC. Volume 11 Number 1- April 2002
<http://bulletin.rec.org/bull111/ceelaw.html>

¹⁶⁷ EUROOPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

¹⁶⁸ The Bulletin, The quarterly magazine of the REC. Volume 11 Number 1, April 2002
<http://bulletin.rec.org/bull111/ceelaw.html>

¹⁶⁹ EUROOPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

¹⁷⁰ Latvian Environmental Protection Fund, *Strategy for Sustainable Development of Latvia*, 13 August 2002

In addition, the government will develop regional facilities for collection, packaging (or repackaging), marking and temporary storage of hazardous waste.¹⁷¹

At local level, a *Municipal Waste Management Strategy* is in place. A big part of the strategy is the closure of existing waste dumpsites that don't meet environmental standards, and the creation of up to a dozen new municipal sanitary landfill sites. Plans include converting some of the non-compliant dumpsites into collection, sorting and reloading areas. The development of municipal waste landfill sites is already under way in Rīga, North Vidzeme, Liepāja and Ventspils, and similar projects are being planned for the Maliena, East Latgale and South Latgale regions. In addition, biogas collection for energy use is planned for the Rīga and Liepāja municipal sanitary landfill sites¹⁷².

The EU dimension - Progress on European Acquis Communautaire and support for improvements:

Latvia has made good progress in aligning itself with the environmental acquis in recent years. One area of significant improvement has been waste management. The new *Waste Management Law* goes a long way to bringing national environmental laws up to speed with European requirements, particularly with regard to waste classification, landfills, and the introduction of provisions for issuing permits for waste collection, storage and transfer. A collection system for accumulators has been in place for some time, and a collection system for household batteries has recently been set in place. However, attention needs to be paid to enabling the regeneration of waste oils. At present, all waste oils collected in Latvia are incinerated. A detailed survey of sources for PCB/PCT is also needed.

For the years 2000-2002 total financial assistance to Latvia amounted annually to at least €30 million from Phare, €22.2 million from SAPARD, and between €36.4 million and €57.2 million from ISPA. As concerns the ISPA programme, the Latvian government has drawn up strategy papers for transport and environment, which were completed in 2000. The Latvian government has identified waste management, in particular closure of old landfills and the creation of new ones in compliance with EC standards, as one of the priorities for ISPA financing¹⁷³.

Latvia has been given until the end of 2007 to complete its implementation of the EC *Packaging and Packaging Waste Directive*.

¹⁷¹ Ibid

¹⁷² Latvian Environment Agency, *Environmental Indicators in Latvia*, 2002
www.vdc.lv/soe/2001_eng/faktori/atkritumi/atkritumi.htm

¹⁷³ European Commission, *Regular Report on Latvia's progress towards Accession*, 2002

Initiatives:

Creation of a new waste management system for the Liepaja region

Liepaja is Latvia's third largest city, situated on the Eastern coast of the Baltic Sea. With an all-year-round ice-free port and network of railways and motorways linking it to the surrounding major industrial regions, the city has always been an important centre of transportation and commerce. Covering an area of more than 3600km², the Liepaja region is home to approximately 146,000 inhabitants. However, it currently has no sanitary landfills and the 27 existing ones operate without environmental protection measures. Unsurprisingly, Liepaja is struggling with an increasing waste burden, with only 69% of inhabitants currently being served by waste removal and management infrastructure.

As a result, the city has developed a new initiative that aims at establishing an environmentally and economically sustainable solid waste management system. The new system will be developed in accordance with Latvia's National ISPA Strategy and with Latvia's *"Municipal Waste Management Programme 500"*. The main components of the measure are

- A single waste landfill organisation for the whole area (increasing the number of people serviced to 100% of urban inhabitants and 65% of rural inhabitants in 2005, or about 92% of all inhabitants) and elimination of illegal practices.
- Construction of a new single sanitary landfill in compliance with the design requirements of directive 1999/31/EC. The new landfill will be located in Grobina on a former military area, 7 km east of Liepaja city.
- Gradual installation of energy cells (5.5 ha with accelerated biodegradation of organic waste), a landfill-gas collection system and a power generator.
- Temporary storage of hazardous waste at the landfill site until the national treatment facility for hazardous waste is completed.
- Improvements to road access, waste collection equipment, public information and education programmes, and landfill equipment.
- Closure and remediation of all existing dumpsites (about 45 ha in total).
- Construction of 26 collection points, in order to introduce waste separation and recycling for glass, plastic and metal.

The anticipated benefits of this initiative are

- Improved public health
- Air quality improvements
- Landfill gas collection (electricity generation as well as reduction of greenhouse gas emissions estimated at about 260 000 tonnes landfill gas containing CO₂)
- Avoidance of soil and groundwater damages (closure of 27 uncontrolled dump sites leading to increased land and real estate values)
- Employment impact (creation of 10 temporary direct jobs during construction phase, i.e. 60 months, and of 17 direct jobs during operational phase).

Assessment and future direction

Latvia suffers from a lack of funds for implementation of its environmental programmes, a problem common throughout the Accession candidates. This lack of funding is compounded by the inappropriate use of existing funds to organise waste management, to provide subsidies for recycling, to carry out education and advertising campaigns, and to produce information. In particular, producers of domestic waste - especially small and medium sized enterprises - are not yet ready to meet the costs of high environmental requirements, which have been known to increase three to five times in a short time period.

The current waste management system is characterised by an unorganised institutional system, a general lack of information on waste issues, and poor involvement of the public¹⁷⁴. Recycling is an example of an area of waste management that will require increased infrastructure and awareness in order to make a significant impact¹⁷⁵. The main problems for the implementation of the *Waste Management Law* and *National Waste Management Plan* are the following:

- There are currently no defined means or implementing structures for informing and educating citizens.
- Local governments lack sufficient finances and the access to credit needed for implementation of the Plan, especially for the construction of new domestic waste dumps. Between 2003 and 2012, they will need own resources in the amount of €27.5 million and creditor resources of €35.9 million.
- The Plan does not make provisions for the closing and post-management of existing waste dumps. Consequently, there is no financing anticipated for execution of these tasks.
- Efforts to introduce sorting of domestic waste have been delayed. For now, only a few separate small pilot projects are being run in different places. (Waste sorting is being carried out on an experimental basis for glass, paper and metal in 5 cities, including Liepaja and Grobina).
- Only a small part of secondary waste can currently be processed in Latvia. Consequently, cooperation with neighbouring countries is needed to address the shortfall through division of tasks, e.g. processing of glass, plastic, cardboard, metal etc.

In terms of administration, continued efforts are needed to strengthen the overall capacity at national, regional and local level. Particular attention needs to be paid to nature protection and the enforcement capacity of the **Environmental Protection Inspectorates** at local level. The review of the division of labour between different institutions in charge of inspection may lead to a better rationalisation of work and resources in this field.

¹⁷⁴ Cities Environment Reports on the Internet (CEROI) Project - Urban Environment Information Gateway, *State of the Environment in Riga*, 2001, www.ceroi.net

¹⁷⁵ EUROPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

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Lithuania

Background and overview

According to the Lithuanian Ministry of Environment, around 6.2 million tonnes of non-hazardous waste was produced in the country in 2000, of which approximately 20% was household waste. With very little scope for sorting, almost all of this waste is sent to landfill. This has created one of the country's most urgent problems in terms of environmental protection. In 2000, around 2 million tonnes of non-hazardous waste went to landfills, and only 450 thousand tonnes was recycled. To make matters worse, most of Lithuania's dumps do not comply with European environmental protection requirements and sanitary standards. The country has approximately 800 landfills, of which 300 are used constantly. All will have to be closed and replaced by modern landfills by 2009.

Actors and Drivers

The **Ministry for Environment** is the main institution responsible for drafting and enforcing legislation pertaining to waste management. However, responsibility for drawing up and implementing the *National Waste Management Programme* falls under the remit of the **Ministry for Economy**. The objectives of the Programme are to

- Promote prevention and recovery of waste
- Create the right market environment for products manufactured from secondary raw materials
- Ensure safe disposal of waste
- Set up the national waste management system.

The **local authorities** are responsible for drafting and implementing legal acts regulating waste management, including preparation of *Municipal Waste Management plans*, and for supervising their enforcement within their territories. In addition, the municipalities oversee the collection and treatment of waste. Among other things, they are responsible for

- Construction, use, recultivation and monitoring of landfills
- Collection of secondary raw materials
- Drafting and implementing programmes for the management of waste generation
- Selecting municipal waste sites
- Obtaining the necessary financing for these schemes.¹⁷⁶

¹⁷⁶ European Commission, *Regular Report on Lithuania's progress towards Accession*, 2002

A number of municipalities have contributed to the *Rules for Waste Management*, which form the basis for the recycling of municipal waste. **Local Agenda 21** is also progressing in Lithuania with 15 cities currently undertaking LA21 processes.

The *Law on Local Government (2000)* gives a specific description of the functions and responsibilities of local self-government institutions. In particular, it makes provisions for the delegation of the following public services on contract basis:

- The maintenance and preservation of the landscape
- The organisation of the centralised supply of heat and drinking water as well as wastewater collection and treatment
- Improvement and protection of the environment
- Creation of household waste management systems, collection of recycling waste, organisation of the reuse of recycling waste and construction and maintenance of dumping sites.

The **Environmental Protection Inspectorate**, including 8 regional departments and 54 city and district agencies, is the body responsible for monitoring and enforcing the implementation of environmental policy. The **regional departments** are chiefly concerned with the permitting system, Environmental Impact Assessment, laboratory control and enforcement of environmental regulations.¹⁷⁷

The **National Commission on Sustainable Development (NCS)** was established under the Resolution of the Government in July 2000. The main objective of the Commission is to ensure the implementation of the basic principles of sustainable development. It does this through policy formation and by coordinating the preparation and implementation of projects in this field by ministries, governmental bodies and other institutions. The Commission is chaired by the Lithuanian Prime Minister and consists of representatives from the state, municipalities, the scientific field, NGOs, associations, and confederations, among others. There are 23 permanent members of the Commission and 14 in case of need.

Policies:

A *Waste Management Law* transposing the EU Waste Directive and parts of other EU measures was adopted in June 1998 and came into force in March 2000. It sets out the responsibilities of the different government ministries (Environment, Health, Economy, Construction and Urban Development) and of the local authorities for waste management. The law requires that national, regional and local governments each draw up their own waste management plans, including special reference to packaging waste management. Local authorities are given prime responsibility for the collection, recycling and disposal of used packaging. The Law also announces the establishment of a **Waste Fund**, which will be used to finance waste management projects, and will likely be funded by industry¹⁷⁸.

¹⁷⁷ European Commission, *Regular Report on Lithuania's progress towards Accession*, 2002

¹⁷⁸ EUROOPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

The regional waste management systems called for in the *Waste Management Law* of June 1998 are not expected to cover the whole territory of Lithuania until 2006. However, the *National Strategic Waste Management Plan*, which was approved in April 2002, goes a long way towards integrating all of these partial strategies¹⁷⁹. The Plan sets out targets, measures and actions for the development of a rational waste management system.

A *Packaging and Packaging Waste Law*, to bring Lithuania into line with EU packaging legislation, was adopted on 25 September 2001 and came into effect on 1 January 2003. In accordance with the *polluter pays principle*, the Law gives producers and importers responsibility to meet national targets for collection, recycling and reuse of packaging and packaging waste, or pay a product fee. They can choose to organise packaging waste management systems themselves, or delegate the task to a recovery organisation. Sellers are required to provide point-of-sale information on how consumers may return packaging and packaging waste. In addition, the law sets out the categories of waste that will be covered by a new deposit system, as well as the guidelines for its implementation¹⁸⁰. All packaging now has to carry a mark identifying the material used, in order to ensure that it meets the maximum permissible levels of dangerous substances in packaging set by the government.

In October 2001, regulations on *Waste Import, Export and Transit* were adopted. These completed transposition of the EU directive on the *supervision and control of waste shipments EEC/259/93*. Full compliance with the directive on the *Landfill of Waste 1999/31/EC* was achieved with the approval of amendments to existing regulations on *closure of existing landfill sites* (2 October 2001) and *construction of inert landfills* (20 March 2002).

In December 2001, the Ministry for Environment approved regulations on *Management of Spent Batteries and Accumulators*. These transpose to a large extent the directives 91/157/EEC, 98/101/EC, and 93/86/EEC. In addition, in May 2002, approval was given for a national programme on management of spent batteries and accumulators. Finally, the new *Law on Environmental Pollution-related Charges*, which was adopted in January 2002 and entered into force on 1 January 2003, introduces charges on packaging as well as goods such as tires and accumulators.

The EU dimension - Progress on European Acquis Communautaire and support for improvements:

Lithuania has achieved a good level of alignment with the EC environmental acquis, especially with regards to legislation and the preparation of strategies and cost assessments for waste management. A *Strategic Plan for the Recycling of municipal Waste* and a *Strategic Plan for a Network of Landfills for Non-*

¹⁷⁹ Ibid

¹⁸⁰ EUROOPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

Hazardous (municipal) Waste were adopted in February 2001. Moreover, the new *National Strategic Plan for Waste Management* sets actions and measures for the implementation of the requirements of the EU directive in waste sector. One of the major challenges that the country still faces is obtaining sufficient investment to finance implementation. Local administrative structures, in particular, need to be strengthened¹⁸¹.

In spite of these obstacles, the Lithuanian government has pressed on with their efforts to implement EU legislation in the waste sector. Most notable are the adoption of an *Environmental Financing Strategy* (2001) and *National Strategic Plan for Waste Management* (2002).

Initiatives:

Creation of a new waste management system in Alytus and Kaunas counties

The counties of Alytus and Kaunas are home to a population of 245,616 and cover an area of 6,579 square kilometres. In a project supported by the European Commission, the two counties are teaming up to create a new system for waste management that meets the strict standards set by European and Lithuanian legislation. The project covers organisation of municipal waste collection and transportation, and development of waste management and disposal facilities. One of the innovations of the project is that it will be implemented in partnership with the private sector, which will be responsible for the collection and transportation of municipal waste, its sorting and recycling, and the associated investments in equipment and specialised vehicles. Priority will be given to collection from towns (140,000 population) and settlements (72,000) and it is expected that 100% of town waste and 80% of settlement waste will be collected and centrally processed by the completion of the implementation of this project in 2004.

The aim of the project is to ensure that the waste collection and disposal in Alytus County and adjoining areas is conducted in an environmentally sustainable manner, complying fully with European Community Directives and ensuring respect of the *polluter pays principle*. The following steps will be taken to achieve this:

- A major (28.4) hectare landfill and recycling centre will be established conforming to all Lithuanian and European Community regulations
- Organic waste will be composted and recyclables collected
- The existing Alytus landfill (the largest in the region) will be closed and made environmentally safe
- Weighing of all deliveries to the landfill will allow full application of the *polluter pays principle*.

¹⁸¹ European Commission, *Regular Report on Lithuania's progress towards Accession*, 2002

Composting and recycling is expected to reduce the volume of waste by approximately 25% by 2010. It is expected that 25% of packaging waste will be collected and recycled in 2002, rising to 38% in 2006. Hazardous waste will be collected separately and handled by the **National Hazardous Waste Programme**¹⁸².

Assessment and future direction

Lithuania has achieved substantial transformation in terms of waste management in its effort to meet EU accession requirements. However, two main problems persist. Firstly, the new systems that are being put in place are focused on regions, including several municipalities. As there is no experience in Lithuania in operation of such systems, assistance is needed in building capacity: e.g. with regards to inter-municipal cooperation; organisation of collection and transportation; separation and collection of secondary materials and biodegradable waste; financing of regional systems; and charge collection.

Secondly, the *National Waste Management Plan* lacks the financing needed for effective implementation. In the area of recycling, for instance, Lithuania has a reasonable amount of capacity and even imports large quantities of paper and glass for recycling. However, the system lacks background financing and the markets for secondary materials are very poor. There is no incineration capacity and there are no plans for any¹⁸³.

A third obstacle is the lack of understanding and responsibility for waste management among citizens. Lithuanians are aware of the companies that recycle waste and even use their products, but the environmental value of the products, made from secondary raw material is not emphasised. Consequently, there is a lack of motivation to sort waste, as many people think that everything goes to the landfills in any case. However, efforts are being made to change this situation.

Lithuania has begun a process of reducing the waste burden by 25% by 2010 and to increase the amount of separated waste for recycling by up to 9% by 2007, and by up to 12 % by 2012. The authorities also hope to collect at least 50% of total packing waste in 2003. To meet these standards, the country has taken action to improve waste collection as well as awareness. The public is better informed now through information campaigns. And, combined with the increased availability of disposal containers, more waste can be recycled. The government is also in the process of closing and re-cultivating landfills.

¹⁸² European Commission DG Regio, *ISPA and pre-accession measures*, www.europa.eu.int/comm/regional_policy/funds/ispa/lithua_en.htm

¹⁸³ EUROOPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

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Malta

Background and overview

The island of Malta faces very different challenges to the other countries in this study. It is a small island state with a relatively small population (less than 400 000), a high population density, and very limited natural fresh water resources. The country comprises an archipelago, with only the three largest islands (Malta, Gozo, and Comino) being inhabited. Consequently, land and natural resources are at a premium. Malta imports most of its goods and raw materials, and is limited in the options it has to develop its own additional infrastructure. It also relies heavily on tourism as a major industry¹⁸⁴. These factors combined generate a number of significant environmental challenges.

Despite a large influx of tourists during the holiday season and the subsequent environmental impact, Malta does not produce enough waste for a national recycling programme to be feasible. The only incineration facilities currently available on the island are for animal and sanitary waste, and plans to build a first municipal waste incinerator have been hotly contested. Outside of Malta, the nearest recycling facilities are located 150km away in Sicily¹⁸⁵. Thus, unlike other small states such as Luxembourg, the island is unable to rely on other major European waste treatment centres. Transport costs, in particular, hamper any private initiatives for the collection of paper and glass for recycling¹⁸⁶. Consequently, Malta concentrates instead on reuse and waste prevention¹⁸⁷.

In its 2001 report on progress on accession in Malta, the European Commission identified weak administrative capacity and the lack of a long-term and sustainable approach to environmental issues as two main obstacles to alignment with the EU environmental *acquis*. Waste management, in particular, is cited as one of the critical challenges faced by the country¹⁸⁸. A new *National Waste Management Strategy* goes a long way towards addressing this deficiency.

During 1995 it was estimated that around 1,496,000 tonnes of solid waste made up of 127,000 tonnes of Municipal Solid Waste (MSW), 139,000 tonnes of Industrial Waste and around 1,230,000, tonnes of C&D Waste was produced in Malta. MSW has increased by an average of 12% per year over a period of four years (1997-2000) and now stands at 156,432 tonnes. C&D waste has increased by 15.26% yearly over the last four years and now stands at 1,198,634 tonnes in 2000, up from 744,210 tonnes in 1997¹⁸⁹.

¹⁸⁴ Julian Manduca, *Soft Drink Packaging in Malta*, http://www.geocities.com/eco_mt/eu/html/cs_plastic.html

¹⁸⁵ EUROPEAN - The European organisation for packaging and environment www.europen.be/test/members/report_web_3.html

¹⁸⁶ Ibid

¹⁸⁷ Ibid

¹⁸⁸ European Commission, *Regular Report on the Malta's progress towards Accession*, 2001 and 2002

¹⁸⁹ These statistics are taken from the Solid Waste Management Strategy prepared by the government of Malta. More information is available from www.gov.mt/frame.asp?l=2&url=http://www.moe.gov.mt/strategy.htm

Actors and Drivers

Malta is a centralised state with government policy decided and administered directly from the capital Valletta. **Local Councils** carry out administrative orders

The **Ministry for Environment**, through its **Environment Protection Department (EPD)**, is responsible for the drafting and implementation of most of the legislation related to the *acquis*. The EPD covers horizontal legislation, nature protection, water and air quality, waste management and industrial pollution control, and risk management. The *Environment Protection Act* designates it as the competent authority on environmental issues¹⁹⁰.

In terms of waste management, the **Ministry for the Environment** is made up of the following departments:

- **Environmental Protection Department (EPD)**, responsible for development and implementation of waste management policy and the regulation (in conjunction with other agencies) of waste management activities.
- **Waste Management Strategy Implementation Department (WMSID)**, responsible primarily for the provision and operation of public sector waste management facilities.
- **Works Division**, responsible for the preparation of the *Solid Waste Management Plan* for Malta.

The **Ministry for Resources and Infrastructure** was established on 1st March 2002 and is mainly responsible for major infrastructural works and projects. Its portfolio also includes sewerage, public cleansing and waste.

The Ministry for Gozo is responsible for implementing waste management policy and public sector facilities on the Island of Gozo.

Local Councils were established by the Local Councils Act, 1993. Council members are elected for a three year period. Local Councils are responsible for the provision of municipal waste collection services within their respective territories (using private contractors). In addition, they issue byelaws on waste management, and inform residents about waste management issues within their locality.

¹⁹⁰ European Commission, *Regular Report on the Malta's progress towards Accession, 2001 and 2002*

Policies:

In January 2000, Malta finalised a *Solid Waste Management Plan*, which will be fully implemented by 2008. Following on this, the Maltese government commissioned the preparation of a *National Waste Management Strategy*, which was adopted in October 2001¹⁹¹. The strategy focuses on 1) more efficient use of resources and 2) better management and disposal of waste once products have reached the end of their useful life. Importantly, the strategy provides a detailed timetable for achieving the set objectives, and empowers the Minister responsible for the environment to issue regulations on classification, management, prevention and control, production and disposal of waste¹⁹².

Several bans on landfilling and dumping are set to take effect in 2003. This includes untreated slaughterhouse or abattoir waste; untreated fish tissue from aquaculture and related industry; untreated hazardous waste from hospitals and other healthcare establishments; and whole tyres. Ahead of the closure and rehabilitation of the two dumpsites in Magtab (Malta) and Qortin (Gozo) in 2004, new and improved landfill sites are currently under construction.¹⁹³

Targets for 2005 include the recovery of 50% of the current mixed inert waste being generated. And, by 2010, the island plans to reduce landfilling of biodegradable waste to 75% (50% by 2013 and 35% by 2020).¹⁹⁴

In April 2002, the Maltese government launched the *Solid Waste Management Strategy*, also known as **PROGETT SKART**. The Strategy sets out the targets that need to be achieved over the coming years. In addition, it outlines the waste handling and treatment facilities that will be needed to meet those targets, and the institutional and resource requirements that will support the development of an integrated policy approach. This project is designed to establish a modern, professional, and integrated waste management strategy for Malta. The project aims to

- Raise awareness and effect change on waste.
- Equip families, workers and industries on how to reduce waste.
- Introduce incentives to encourage the reuse of materials.
- Develop waste separation and recycling systems.
- Encourage higher levels of re-use.
- Further develop energy recovery technologies (e.g. anaerobic digestion).
- Enable greater public participation in the decision making process.

¹⁹¹ *Global Framework Contract, Environment Development of an Integrated Solid Waste Management Strategy for the Maltese Islands, LOC No.: de Angelis-004-MA/MEDA/SCR/A2-00, May 2001*

¹⁹² Malta EU Information Centre

¹⁹³ Malta Ministry of Resources and infrastructure,
http://www.mri.gov.mt/works_solidwaste_milestones.htm

¹⁹⁴ Ibid

Specific initiatives include

- Setting up a Waste Management Services Agency.
- Developing an Environmental Impact Assessment for new landfills.
- Establishing a Code of Practice for waste management.
- Facilitating separate waste collection at the local level.
- Establishing a Waste Transfer Station in Gozo.
- The closure of all substandard landfills and incinerators by 2004.
- The development of recycling targets and recycling facilities.
- The introduction of charges for waste management services

The EU dimension - Progress on European Acquis Communautaire and support for improvements:

Despite the progress made by the Maltese government in developing a long-term environmental strategy to align with the *acquis*, the European Commission report on accession in 2002 found that the country remained weak in terms of administrative capacity and enforcement¹⁹⁵. Increasing environmental awareness on the island was also seen as a vital component in accelerating alignment with EU environmental targets. In particular, it referred to poor conditions of waste disposal at the island's two landfills. Both the Magtab and the Qortin landfills fail EU standards. However, in line with the *National Waste Management Strategy*, these will have been closed down by 2004. In their place, there will be one landfill in Gozo, only for inert waste (the rest of the waste in Gozo will be transferred to Malta via a transfer station which will be in place by 2004), an additional landfill in Malta for inert waste, and two engineered landfills, one for domestic waste and the other for dangerous waste.¹⁹⁶

Regulations transposing the EC *Packaging and Packaging Waste Directive* were adopted at the end of 2002¹⁹⁷. While Malta has adopted horizontal legislation on environmental impact assessments, it still has to align its legislation with respect to access to information and reporting¹⁹⁸. Malta will begin its implementation of the EC *Packaging and Packaging Waste Directive* at a minimum level: namely 5% recycling, no energy recovery and a total ban on non-refillable carbonated soft drink containers. Reuse remains the method of choice, as the Maltese believe that it makes sense in their particular situation. However, as DG Internal Market has already rejected this option, Malta is pressing for lower targets on alignment and the Commission has agreed to a longer timetable¹⁹⁹. Malta will be allowed to keep the ban on plastic bottles until the end of 2007, in order to give the island time to design a replacement system that remains environmentally friendly and can cover a wider range of beverage containers²⁰⁰.

¹⁹⁵ European Commission, *Regular Report on the Malta's progress towards Accession, 2001 and 2002*

¹⁹⁶ Malta EU Information Centre

¹⁹⁷ The European organisation for packaging and environment
www.europen.be/test/members/report_web_3.html

¹⁹⁸ European Commission, *Regular Report on the Malta's progress towards Accession, 2001 and 2002*

¹⁹⁹ The European organisation for packaging and environment
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²⁰⁰ Julian Manduca, *Soft Drink Packaging in Malta*, ECO - The Malta Ecological Foundation,

Initiatives:

The Law on reusable bottles

Malta has already achieved unique success in environmental management in one respect. A law passed in 1961 requires that all soft drinks sold on the island be bottled in glass with a mandatory deposit on the container²⁰¹. This includes carbonated big brand drinks such as Coke and Pepsi, which cannot be bottled in aluminium or plastic²⁰². About 80 million glass bottles are sold annually in the Maltese islands, making the country one of the highest per capita consumers of soft drinks. Impressively, most of these are returned and reused around 30 times and some have been known to remain in circulation for up to 10 years.²⁰³

Efforts are under way to try and preserve this law during the process of accession. However, EU demands for Malta to open up its market to other forms of packaging (including non-recyclables) pose a significant threat. In a free trade situation, the likelihood is that distributors will favour one-way PET as the most commercially sensible option, as it removes the need to collect and wash used containers²⁰⁴. The results could be catastrophic for the island, where the presence of plastics has already increased dramatically in recent years. Fortunately, public and media awareness of environmental issues has also risen, with the result that the government is under greater pressure to respond²⁰⁵.

Assessment and future direction

As part of the assessment of the environmental impact of Malta joining the EU, a study was published in May 2000 on the impact of introducing alternative packaging for soft drinks on the island²⁰⁶. It concluded that, while alignment with the EU environmental *acquis* in general will improve overall environmental conditions, retaining the present packaging regime would nevertheless bring significant benefits. The study shows that, for Malta, refillable glass is the best option. Retaining reusable glass bottles would not only ensure less accumulation of waste and therefore less going to landfills, but it would have the knock-on effects of requiring less waste collection vehicles and therefore investment in

http://www.geocities.com/eco_mt/eu/html/cs_plastic.html

²⁰¹ *The Non-alcoholic Beverages (Control of Containers) Regulations, LN 158/98*: These Regulations reflect Malta's focus on packaging reuse rather than recycling. 87% of the market is in refillables. Carbonated soft drinks may only be sold in refillable glass bottles or through premix or postmix dispensing systems. Importers, manufacturers, wholesalers, agents and retailers must impose a refundable deposit on all refillable glass containers and kegs of at least 15% of the wholesale price of the product. They are obliged to accept back from customers returned glass containers or kegs of carbonated beverages sold by them. (Source: The European organisation for packaging and environment, www.europen.be/test/members/report_web_3.html)

²⁰² Julian Manduca, *Soft Drink Packaging in Malta*, ECO - The Malta Ecological Foundation, http://www.geocities.com/eco_mt/eu/html/cs_plastic.html

²⁰³ Ibid

²⁰⁴ Ibid

²⁰⁵ Ibid

²⁰⁶ SLR Group and AIS Environmental Limited, *An Eco-Balance Study to investigate the environmental impact of introducing alternative packaging for soft drinks*, May 2000

expensive infrastructure for recycling and disposal. The impact on effluent from cleaning the bottles was found to have a negligible impact on the environment, and the study.²⁰⁷

However, should Malta not succeed in keeping its law on refillable bottles, the next best option would be to introduce a law to favour refillable packaging for beverages before Malta becomes an EU member.²⁰⁸

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²⁰⁷ Julian Manduca, *Soft Drink Packaging in Malta*, ECO - The Malta Ecological Foundation, http://www.geocities.com/eco_mt/eu/html/cs_plastic.html

²⁰⁸ Ibid

Poland

Background and overview

Poland's present environmental situation can be attributed to its membership in the eastern European communist bloc and subsequent rapid and ongoing conversion to a market economy. Many aspects of Poland's centrally planned economy and Soviet-style political system were catastrophic for the country's environment. Among the negative factors were the reckless encouragement of economic development, a skewed system of energy and resource pricing, the failure to modernise heavily polluting industrial facilities and a stifling of public participation²⁰⁹. Environmental management systems and infrastructure such as landfills and waste collection services were not prepared to deal with the resulting waste explosion that occurred in Poland towards the end of the 1980's and especially in the 1990's. Today Poland ranks among Europe's largest waste generating countries.

In 1999, the country produced a total of 126 million tonnes of industrial waste and 12.3 million tonnes of municipal waste. Industrial waste accounts for over 90% of the total volume of waste in Poland. The main contributors are coal mining, quarrying, power generation, and metalworking industries. There are no incinerators for the disposal of industrial waste and slightly less than half of all industrial waste is dumped into landfills²¹⁰. Only 0.3% of industrial waste is currently being treated. Hazardous waste is generally not being properly handled. Only 26% is treated, and much of the rest is discharged as effluent²¹¹. Municipal waste accounts for 10% of the total waste generated each year in Poland. The annual per capita amount of municipal waste produced in Poland is 300-320 kg, and is expected to increase. Only 55% of the population is served by waste collection agencies, making proper collection and disposal difficult. Dumpsites are the principal way of handling municipal waste and almost all of it goes to landfills without separation. Waste recycling is a relatively recent concern in Poland as the recycling market is underdeveloped. Only 2.4% of municipal waste is re-used or recycled.²¹²

²⁰⁹ The Resource Renewal Institute (RRI), <http://www.rri.org/>

²¹⁰ Aalborg University Planning and Development Department, *Environmental Management Recycling Comparison*, 2002
www.lsn.auc.dk/env_mgt/7sem/Mini%20projects/Mini%20project%20group%2045.doc

²¹¹ The Resource Renewal Institute (RRI), <http://www.rri.org/>

²¹² Aalborg University Planning and Development Department, *Environmental Management Recycling Comparison*, 2002
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Actors and Drivers

Environmental management is handled by Poland's **Ministry of Environmental Protection**. The ministry's responsibilities cover pollution prevention and control, nature conservation and resource management. It is charged with developing and implementing a national policy and with coordinating international cooperation. Responsibility for waste management falls under the remit of the **Ministry of Physical Planning and Construction**.

The **State Inspectorate for Environmental Protection** enforces environmental regulations. It functions on the national and local levels. The voivodship (provincial) inspectorates report to the chief inspectorate, which is directly answerable to the environmental minister. Inspectorates are authorised to prohibit or halt economic activities that violate environmental standards. They also collect data on the state of the environment.

The **National Fund for Environmental Protection and Water Management** provides grants and loans to environmental projects. It is financed by proceeds from environmental fees and fines. The fund controls 44.4% of shares in the **Environmental Protection Bank**, which acts as another source of environmental financing²¹³.

Poland is divided administratively into **49 voivodships (provinces)** and **2,121 gminas (municipalities)**. Much of the implementation of environmental policy is handled at the voivodship level. Each has its own Department of Environmental Protection. The voivodship inspectorates are also the first tier of the **State Inspectorate for Environmental Protection**. Voivodships issue permits, collect fees and operate their own environmental funds. They may also set stricter standards for emission and effluent limits than those required by the national government if these are necessary to meet ambient quality requirements. The power of the voivodships is especially important considering the distribution of environmental degradation. Half of Poland's pollution load is concentrated in only six of its 49 voivodships. Gminas are responsible for monitoring compliance and issuing permits at the local level. They also have authority over local planning and municipal services, such as wastewater treatment and waste management. The gminas' authority over planning is problematic, since most do not have the resources to adequately conduct or enforce their policies. They have generally not been able to combat the uncontrolled urbanisation of the countryside²¹⁴.

²¹³ The Resource Renewal Institute (RRI), <http://www.rri.org/>

²¹⁴ Ibid

Policies:

A number of important regulations pertaining to the environment have been passed in the last several years. An *Environment Protection Law* was adopted by the Polish parliament in April 2001²¹⁵. This was followed shortly afterwards by the *Act on the Duties of Entrepreneurs*, which was adopted on 11 May 2001 and came into force on 1 January 2002, the *Law on Waste* which entered into force in October 2001, and the *Law on Packaging and Packaging Waste* which came into force in January 2002. In terms of horizontal legislation, the Acts on *Environmental Impact Assessment* and on *Access to Information* entered into force in January 2001.

The *Act on the Duties of Entrepreneurs* and the *Law on Packaging and Packaging Waste* together transpose the *EC Packaging and Packaging Waste Directive*. According to the laws, retailers with a trading area greater than 2000m² (previously 300m²) must carry out and fund the separate collection of packaging waste. They are also obliged to phase in reusable packaging options to their normal stock, including refillable containers²¹⁶. Companies with an annual turnover below €135,000 have exemption until 1 January 2004. In addition, the Act establishes high product charges on packaging, which are payable when recovery and recycling targets are not met. Revenues from the product charges on packaging will be spent on packaging waste recovery and recycling, and on education programmes for selective collection and recycling. Besides packaging, the new law also sets recycling targets for end-of-life electrical and electronic equipment, batteries, lubricating oils and tyres²¹⁷.

The Polish government will soon issue an ordinance defining the types of packaging that will be subject to marking requirements. In such cases, it will be mandatory to mark sales packaging with the type of materials used, reusability, and suitability of the pack for recycling. Sellers will be obliged to provide consumers and end-users of packaged goods with information about available methods of return, collection and recovery, including recycling, as well as providing information on the meaning of markings on packs.²¹⁸

Permits are issued for the storage or dumping of wastes, the economical use of radioactive waste, and recycling of waste containing microbes. The most developed regulation concerns the *storage and dumping of waste*. Waste can be deposited only in places designated for this purpose by land-use plans, and must meet strict health and safety, and environmental criteria.²¹⁹

²¹⁵ European Commission, *Regular Report on Poland's progress towards Accession*, 2002

²¹⁶ EUROOPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

²¹⁷ Ibid

²¹⁸ EUROOPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

²¹⁹ Aalborg University Planning and Development Department, *Environmental Management Recycling Comparison*, 2002
www.lsn.auc.dk/env_mgt/7sem/Mini%20projects/Mini%20project%20group%2045.doc

The EU dimension - Progress on European Acquis Communautaire and support for improvements:

Poland has achieved considerable alignment with the EC environmental acquis. It has also prepared the necessary implementation programmes in the field of air, waste, water and industrial pollution²²⁰. The reference point for this has been the *2nd National Environmental Policy*, which defines clear objectives and targets for Poland's protection activities. In line with the Policy, an *Action Programme* is to be established for each sector (air, water, and waste), and will incorporate the principles of the EU 5th and 6th Environmental Action Programmes.

In addition, Poland recently adopted a "*Long-term Strategy for Permanent and Sustainable Development*" towards 2025. The strategy provides guidelines for all sectoral policies to ensure that they respect environmental interests and orient them towards a sustainable approach. As such, the strategy constitutes a framework for the integration of environmental concerns into sectoral policies at national, regional and local level. Finally, the recently adopted laws on environmental protection and waste management will ensure full transposition of the acquis on waste management.²²¹

Initiatives:

Solving the waste transport problem for the city of Lodz

Lodz is one of the largest cities in Poland, with a population of over 800,000. The annual production of household waste amounts to 170,000 tonnes and is expected to increase to over 190,000 tonnes in 2010. At present there is a very low rate of collection of recyclable material and limited capacity for processing and storing waste within the city. As a result, most waste is reloaded into containers and transported to distant landfills. Two of these landfills, at Czom and Koronowo, are over 200km from the city and take 68% of the waste, while a third at Krosniewice, 60km from Lodz, takes the remaining 32%. The city also produces a further 180 000 tonnes per year of other waste (building waste, earth from excavations, sweepings from streets, green waste from gardens, parks and markets etc.). All inert waste is deposited at an existing municipal landfill and all green waste goes to an existing municipal composting plant, which is becoming too small. Overall, the current situation, particularly with regard to managing household waste, is clearly unsustainable.

²²⁰ European Commission, *Regular Report on Poland's progress towards Accession*, 2002

²²¹ European Commission DG Regio - Directorate F, *ISPA and pre-accession measures*, www.europa.eu.int/comm/regional_policy/funds/ispa/lithua_en.htm

With the support of the European Union, the city has begun to develop a modern refuse management system with the specific goal of ending the transport of household waste over very long distances. In accordance with the *Municipal Waste Management Programme for Lodz* (approved in 1999) the project will involve

- Implementing an effective sorting and collection system for household waste at source, particularly separating dry and organic waste.
- Construction of a new sorting and transfer station at Lublinek in the suburbs of the city. This will have the capacity to handle up to 130,000 tonnes per year. The remaining 65,000 tonnes per year will be collected by a private sector collection company, which will also sort the waste.
- Establishing a new landfill for dry waste at Lublinek, which will have a capacity of 800 000 tonnes. This site will be sealed and have drainage and gas collection and be fully compliant with the Landfill Directive.
- Expansion of the existing composting plant for organic waste to have a capacity of 19,000 tonnes per year. This will require the addition of four container composting modules of 3,000 tonnes each.

It is expected that the amount of secondary material obtained by selective collection and sorting at Lublinek will amount to 25,000 tonnes per year. About 30 companies are working at present in the collection and disposal of waste, though 90% of the market is covered by three companies - one public and two from the private sector. It will be a condition of the operating licenses of all waste collection companies that they operate a two-container system with segregation into the dry and 'bio' fraction and deliver these to a sorting plant and the composting plant.

Assessment and future direction

Poland's administrative capacity for EC environmental directives remains a matter of concern. Local and regional government still need to be strengthened. Staff resources are limited and the awareness about requirements of EU environmental directives needs to be improved. Significant training in EU environmental policy is still necessary. Additional confusion over responsibilities has been caused by the spreading of tasks across a number of agencies and administrative levels. Different bodies are responsible for setting objectives, permitting, monitoring, inspection and financial instruments²²². Greater clarity will need to be achieved to ensure the effective implementation of Poland's new environmental strategies.

²²² European Commission, *Regular Report on Poland's progress towards Accession*, 2002

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Romania

Background and overview

Disposal of municipal waste is today one of the most significant environmental challenges that Romania faces. Mines, industry and municipalities are the country's main generators of waste. However, between 1995 and 1999, economic decline and decreased production led to a significant drop in both of the former. The production of mining waste was reduced tenfold, and the annual total industrial waste went from 51 to 34 million tonnes. In contrast, municipal waste has remained fairly stable at around 6-7 million tonnes per year. The country's ability to process and deal with this waste is extremely limited.

Only glass bottles are sorted and collected separately, and used for the production of brown glass. Consequently, the bulk of municipal waste currently goes to more than 1,250 national landfills (catering to municipal as well as industrial waste); of which less than 60% meet health and safety standards. Most lack plastic insulation to prevent hazardous leachate from entering the groundwater and soil. Industrial waste landfills, in particular, are responsible for the release of heavy metals and organic chemicals, and pose a threat to the Danube River basin²²³. In terms of capacity, the current landfills will only meet the country's needs for the next 10-15 years²²⁴.

Nor does incineration offer a workable alternative. There are currently no facilities for municipal waste incineration on an industrial scale in Romania. A few pilot incinerators exist. However, their capacity is limited to 0.5 tonnes per hour without power generation. Thus only about 1.3% of municipal waste was incinerated in 2000. One of the obstacles to incineration has to do with the nature of the waste itself. Despite being high in organic substances, municipal waste incineration is not economically feasible for energy production due to its high water content²²⁵.

A poor economic climate and lack of foreign investment have hampered Romania's efforts to address the waste problem by promoting the use of cleaner production processes, either through economic incentives or international partnerships. The lack of adequate financing is a major stumbling block to launching existing proposals to improve underdeveloped waste recovery processes or to introduce new methods for reprocessing raw materials. However, new initiatives, such as the **Romanian Cleaner Production Centre (RCPC)**, launched by the Polytechnic University of Bucharest in 1999, are helping to address these gaps by providing training, research and education to all interested parties on reducing industrial pollution and waste production.²²⁶

²²³ United Nations Economic and Social Council - Economic Commission for Europe: Committee on Environmental Policy Environmental Performance, *Review of Romania*, September 2001

²²⁴ National Research and Development Institute for Environmental Protection (ICIM)

²²⁵ United Nations Economic and Social Council - Economic Commission for Europe: Committee on Environmental Policy Environmental Performance, *Review of Romania*, September 2001

²²⁶ Ibid

Actors and Drivers

The **Ministry of Water and Environmental Protection** is responsible for drawing up environmental policy, which includes developing a *National Waste Management Plan*. The latest version of this is expected in mid-2003 and will be revised every five years²²⁷. The Environment Ministry also assumes a coordination role through an Inter-ministerial Committee. However, lack of capacity means the Committee has not met since the end of 1999.

Implementation of environmental policy is the job of the **42 local authorities** or counties, each with their own **Environmental Protection Inspectorates**. Municipalities are legally responsible for the collection, transport and disposal of solid waste (except toxic and hazardous waste). They can either carry this out themselves or delegate it under contract to a waste management company. Municipalities must provide space for collection containers and report annually on the amount of waste recovered. However, here too there are some barriers. In contrast with the increases in staff at local level in the other EEC countries, staff allocations for environmental policy implementation in Romania have been reduced and the self-financing mechanism set up in 2001 has only generated one quarter of the expected revenues. Coordination at **regional level** is non-existent²²⁸.

The **National Research and Development Institute for Environmental Protection (ICIM)** is responsible for research in industrial and municipal waste management, as well as for developing and implementing relevant policy and programmes. Its tasks include collection and analysis of information on the safe management of waste, its generation, storage, recycling and disposal, and the setting up of a waste databank.

The **National Commission for Recycling Materials** under the **Ministry of Industry and Resources** is the main organisation that promotes waste recycling, recovery and its use as secondary raw material. The functions of the Commission include providing technical, financial and administrative assistance to promote environmentally sound recycling and recovery of waste, including technological details of processes used.

The national environmental budget for Romania reached around €73 million in 2001, representing a slight increase over previous years and amounting to less than 0.4% of the GDP. This is less than one third the EU average. Consequently, the 2002 European Commission report on Romania's accession raises some concerns over the country's ability to enforce environmental policies²²⁹. The **Environmental Protection Inspectorates** in the counties have had their staff cut by over 20% over the last two years.

²²⁷ European Commission Regular Report, *Romania's progress towards Accession*, 2002

²²⁸ European Commission Regular Report, *Romania's progress towards Accession*, 2002

²²⁹ United Nations Economic and Social Council - Economic Commission for Europe: Committee on Environmental Policy Environmental Performance, *Review of Romania*, September 2001

Policies:

Romania adopted a framework *Law on Waste* in 2001. The Law obliges the owners of industrial facilities to ensure environmentally sound waste management. In addition, it calls for a *National Strategy on Waste* and a *National Action Programme*. Local waste management plans are developed and forwarded to the Ministry for Environment to be included in a *National Waste Management Plan*²³⁰.

The government's policy objectives for municipal and industrial waste management, including for hazardous waste, are formulated in the *Medium-term National Strategy for Economic Development* and the *Strategy for Environmental Protection 2000-2004*, as well as in the *National Environmental Action Plan 1999 (NEAP)*. The NEAP contains 5 projects subdivided into 56 sub-projects on industrial and municipal waste management in different counties. They include

- The construction of environmentally sound landfills for municipal and industrial waste disposal in 19 cities and towns and in 7 different zones
- The construction of environmentally sound landfills for industrial waste disposal at 14 different sites
- The treatment and disposal of hazardous waste at 7 treatment and disposal facilities.²³¹

The Romanian government has adopted a *Decision on Packaging and Packaging Waste*, which was prepared with assistance from the German Environment Ministry. The Decision transposes the *EC Packaging and Packaging Waste Directive* in its entirety, and includes annual recovery and recycling targets up to 2010. Companies can choose to meet recovery and recycling targets through individual compliance, contracting out to specialised companies, or through the public sanitation service. In turn, municipalities must ensure selective collection, while consumers must deliver their packaging waste to municipality-licensed sites²³². In addition, government Decisions have been passed regarding the *regime for accumulators and batteries containing dangerous substances (2001)*, the *incineration of waste (2002)* and the *landfill of waste (2002)*.

A *Law on the Environmental Protection Fund* was approved in 2001 and has since been adopted. The Law establishes the legal framework under which eco-taxes, product charges, fees and fines can be set. The Fund will draw up annual working plans, decide on projects to be supported, and supervise the implementation of approved projects. Through total or partial subsidies, it will finance programmes for environmental control and clean technologies, waste management and recycling, the reduction or elimination of hazardous waste, biodiversity and environmental awareness²³³.

²³⁰ Ibid

²³¹ United Nations Economic and Social Council - Economic Commission for Europe: Committee on Environmental Policy Environmental Performance, *Review of Romania*, September 2001

²³² EUROPEN (The European organisation for packaging and environment), *Status Report on European Packaging and Waste Law*, www.europen.be

²³³ Ibid

It is foreseen that EU Directive 96/61/EC on *Integrated Pollution Prevention and Control (IPPC)* will be introduced in Romania by the end of 2003. All specific requirements for the establishment of integrated licensing in compliance with the IPPC Directive will be transposed in a new government decision on IPPC by 1 November 2003. In addition, the **National Commission for Recycling Materials** is developing a *National Strategy for the Recycling of Industrial Waste* in cooperation with the ministries concerned. This strategy will cover all industrial sectors generating waste. It will be used to develop a special programme to increase waste recycling.

The EU dimension - Progress on European Acquis Communautaire and support for improvements:

The European Commission's report on accession finds that Romania still has a long way to go to fully align itself with the EC environmental acquis, and that transposition and implementation still remain low overall²³⁴. However, some progress has been made. Romania has signed up to international conventions such as the *Convention on environmental impact assessment in trans-boundary contexts* (the Espoo Convention)²³⁵ and the *Kyoto Protocol on climate change*. On waste management, limited progress has been achieved in the legislative field, with three *emergency ordinances* adopted on waste arrangements, on the management of recycled industrial waste, and on the procurement of metal and non-ferrous waste²³⁶.

Initiatives²³⁷

An integrated waste management system for Piatra Neamt

Piatra Neamt is the business, commercial and tourism centre in North-Eastern Romania and has a population of around 125,000. The storage and collection of household waste in the town is characterised by poor standards of hygiene and safety. The existing outdated landfill allows waste to leak, polluting the groundwater and the river. This represents a major health risk for the population. In addition, poor waste management has contributed to air pollution in terms of dust, smell and smoke. In order to address these issues and help the city meet European standards, a new project has been launched to make Piatra Neamt the first town in Romania with an integrated system for the management of solid waste. The project will be co-financed with an ISPA grant of 75%, a contribution from the DANCEE programme of the Danish Ministry of Environment and Energy of 16%, and the Municipality of Piatra Neamt of 9%. The project will focus on meeting standards for the collection, sorting, transport, treatment,

²³⁴ European Commission Regular Report, *Romania's progress towards Accession*, 2002

²³⁵ For more information: <http://www.unece.org/env/eia/>, "Guidance on the Implementation of the Espoo convention", <http://www.vyh.fi/eng/current/events/transeia/agreementssummary.pdf>

²³⁶ European Commission Regular Report, *Romania's progress towards Accession*, 2002

²³⁷ European Commission DG Regio - Directorate F: *ISPA and pre-accession measures*, www.europa.eu.int/comm/regional_policy/funds/ispa/lithua_en.htm

disposal and storage of waste. In addition, it aims to reduce the total amount of waste, thereby reducing waste-related health problems for sanitation workers as well as the general population.

The new waste management programme will include selective waste collection (collection points for household waste including containers and igloos for organic and residual waste as well as paper, glass and plastics), waste recycling (paper, glass, plastics), composting and crushing, the rehabilitation of the town's old landfill and the opening of a new landfill. The project's annual targets include

- Composting upwards of 35,000 tonnes of organic waste
- Crushing 16,000 tonnes of construction and demolition waste
- Recycling 6,000 tonnes of paper
- Recycling 900 tonnes of metal
- Baling 2,600 tonnes of plastic
- Recycling 5,100 tonnes of glass.

Anticipated benefits of the project include

- Increased employment opportunities
- Reduction of waste volumes
- Substantial increases in the recycling of waste
- Decreased pollution
- Improvement of public hygiene and sanitary standards
- Benefits for agriculture from the use of composting waste
- Elimination of ground water and air pollution

Finally, the improved quality and appearance of the urban environment will contribute positively to business and tourism opportunities for the town. One of these is expected to be the increased prospects for establishing recycling industries in the region.

Assessment and future direction

Romania faces a double challenge in improving its environmental management practices. Firstly, the resources allocated to environment in Romania are insufficient to address the environmental problems the country faces. Secondly, the institutions that are responsible for environmental protection have very little experience in this area in comparison with other EU countries, especially with regards to transposition of legislation and application of economic instruments²³⁸. Consequently, much of the legislation that has been adopted to meet EU requirements is often ambiguous and does not reflect Romanian realities, such as lack of facilities and enforcement capacity.

For instance, the new *Packaging and Packaging Waste* legislation does not solve problems related to financing, selective collection, the obligations of local authorities, enforcement, and the need to establish the right economic environment for commercial recycling. The conditions imposed for the incineration of waste are also extremely strict and in some cases too ambiguous.

²³⁸ European Commission, *Regular Report on Romania's progress towards Accession*, 2002

While the decision regarding the landfill of waste does not solve the problem of the costs of the depositing activity. Similarly, the decision regarding the regime of accumulators and batteries does not allocate clear responsibilities for processing these products. Overall, the facilities available to the private sector and citizens to contribute to environmental protection and selective waste collection remain severely limited. In particular, there is an urgent need for more information and better training for the public on sorting and recycling municipal waste²³⁹.

One of the ways in which the Romanian government is working to improve the situation is through a twinning investment programme with Germany. The project has the following objectives:

- Development of recommendations concerning investment planning and the use of economic instruments for waste management.
- Development of a waste database.
- Development of a public education and training programme.
- Development and implementation of co-operation plans between the national environmental authorities (for instance, between the National Commission for Recycling Materials and the local/regional administration).

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Slovakia

Background and overview

A combination of legislation and economic measures governing the use of raw materials and waste management procedures has helped the Slovak Republic to almost halve its production of waste in less than a decade. In 1995, waste production in Slovakia amounted to 25.7 million tonnes. This number dropped to 19.6 million tonnes in 1999, and in 2002, total waste generation was 15.8 million tonnes, of which 9% was municipal solid waste and just over 2% was packaging waste. Waste generation per capita has fallen from 315 kg to 164 kg per year, of which 5% is separated. The most waste is produced from agriculture (4.5 million tonnes) and industry (2.3 million tonnes). The most hazardous waste producers are industry from chemical and mechanical manufacture.

The Slovak Republic has created a system of environmental legislation comprising 60 acts and more than 800 implementation regulations. These relate to all areas of the environment. Waste separation takes place in more than 700 municipalities out of over 2800. The country has recycling capacities for glass, metals, paper and plastics as well as two energy-recovery incineration plants with a combined capacity of 200 000 tonnes. The most common disposal methods remain landfilling, which accounts for 24.1%, and incineration, which accounts for 31%. 139 landfills are currently operating within EU standards.

Actors and Drivers

The central authority of state administration regarding waste management in Slovakia is the **Ministry of Environment**. Besides publishing and overseeing the *National Waste Management Programme*, the Ministry's responsibilities include

- Governing waste management at national level
- Carrying out inspection of waste management facilities
- Issuing permits for the import of waste from abroad, for the export of hazardous waste, and for the transit of wastes through the Slovak Republic
- Regulating the disposal of waste.²⁴⁰

In addition, the Ministry is responsible for the management of environmental risks, as well as for establishing and maintaining environmental information and monitoring systems. In 2000, the ministry adopted a new organisational structure, which came into force in January 2001. An **Implementation Agency for Environmental Investment** project was established as a separate department reporting directly to the Minister, and a **Division of European**

²⁴⁰ *Waste Management Policies in Central and Eastern European countries: current policies and trends*, <http://www.eurowaste.org>

Integration and International Relations was also established. A limited number of extra staff was appointed to units responsible for investment projects, waste management, and nature protection.²⁴¹

The **Waste Management Centre** in the **Slovak Environmental Agency** acts as the focal point for the Basel Convention in the Slovak Republic. The Centre's responsibilities include

- Partial monitoring of waste
- Operating the **Regional Information System on Waste (RISO)** within the **Information System on the Environment**
- Processing data for the state administration bodies
- Contributing to the development and implementation of the *National Waste Management Programme*.

The **Regional Information System on Waste (RISO)** collects data on the registration (in accordance with waste catalogue), transport and disposal of waste. It also implements and updates waste management programmes objectives and measures.

The **Slovak Environmental Inspectorate (SEI)** operates at state and regional level. Reporting to the Ministry of Environment, the SEI has 4 main Inspectorates: water conservation, air protection, waste management, and nature conservation. The inspectorates issue fines for violations of obligations set forth in the *Waste Act* as well as other generally binding legal regulations and decrees.

The **Environmental Departments within the Regional authorities** have responsibility for

- Providing consent for the transportation of hazardous waste out of the region
- Reporting on facilities and activities having an environmental impact outside their territory
- Ensuring that waste producers and waste disposal facilities comply with the national *Waste Act* and other regulations on environmental impact
- Providing information on waste disposal
- Publishing and overseeing *regional waste management programmes*
- Issuing decrees on waste management for the region.²⁴²

Slovakia's **79 district offices** are mainly concerned with water use, but are also responsible for issuing permits related to waste disposal. This includes operation of waste disposal facilities, management of hazardous waste, and transit of hazardous waste within the district. In this regard, the district offices also issue operational regulations and provide input prior to the construction of waste disposal facilities as well as modification in manufacturing processes that relate to waste. Additional responsibilities include monitoring and regulating waste producers and operators of waste disposal facilities; publishing and updating the

²⁴¹ European Commission, *Regular Report on Slovakia's progress towards Accession*, 2002

²⁴² *Waste Management Policies in Central and Eastern European countries: current policies and trends*, <http://www.eurowaste.org>

district waste management plan; providing information on waste management to waste producers; and collecting district waste management statistics to be included in the national database.²⁴³

There are **2898 municipalities** in Slovakia, which are responsible for waste management at local level²⁴⁴. The municipalities have responsibility for regulating the management of municipal solid waste being produced in their territories. In addition, municipalities are themselves considered to be producers of municipal solid waste. Therefore, like other producers, they are obliged to prepare a waste management plan for the approval of the local state administration authority and to keep records on waste.²⁴⁵

Policies:

A new *Waste Act* was adopted in May 2001 and entered into force in July 2001. The Act transposes EC *waste and hazardous waste* legislation. It is partially in line with the *acquis* on the supervision and control of shipments of waste within, into and out of the European Community, on the disposal of waste oils, on batteries and accumulators containing certain dangerous substances, and on old vehicles²⁴⁶. The *Waste Act* provides the Ministry of Environment with a mandate to develop a *National Waste Management Programme*. In addition, regional and district authorities and municipalities must operate their own waste management programmes, which must be harmonised with the national programme. Commercial and industrial generators of more than 100kg of hazardous waste or 10 tonnes of other waste per year are required to prepare their own waste plans and submit them for official approval and harmonisation with the relevant local waste plan. Municipalities must provide for an area where citizens can deliver separated municipal waste materials free of charge.

The Act also provides for a *Recycling Fund* to be established and for manufacturers and importers of certain end-of-life products and packaging types to be charged product fees. The fees apply to used batteries and accumulators, waste oils, old cars, worn tyres, electronic scrap, fluorescent tubes containing mercury and the following packaging materials: glass, paper, plastics and cardboard-based composites. The fees are based on the anticipated costs of collection and recovery, to which 88% of the income from the Fund will be devoted. Recovery and recycling targets and timetables are defined in the *National Waste Management Programme*.²⁴⁷

In January 2003, a *Packaging and Packaging Waste Act* came into force, which transposes the EC Packaging and Packaging Waste Directive²⁴⁸. The Act commits

²⁴³ Ibid

²⁴⁴ <http://www.rec.org/REC/Databases/GovDir/PDFs/Slovakia.pdf>

²⁴⁵ *Waste Management Policies in Central and Eastern European countries: current policies and trends*, <http://www.eurowaste.org>

²⁴⁶ European Commission, *Regular Report on Slovakia's progress towards Accession*, 2002

²⁴⁷ EUROOPEN - The European organisation for packaging and environment, *Status Report on European Packaging and Waste Law*, www.europen.be

²⁴⁸ Ibid

These are the Ťahanovce quarry, Bankov mine and the former gravel pit in Krásna nad Hornádom. Approximately 20 illegal landfills are located in the territory of the city, where around 7000 cubic metres of building waste are deposited. Disposal of green waste from the territory of Košice is undertaken by the Administration of City Green Vegetation.²⁵¹

The city of Košice currently faces the following problems with regards to waste management:

- The existing landfills for municipal and industrial waste present a potential hazard in terms of water, soil and air pollution due to overuse and low environmental standards.
- The municipal waste incinerating plant does not meet the required criteria related to protection of the air.
- No redevelopment and reclamation actions have been undertaken at the municipal waste landfill near Myslava, even after it was put out of operation.
- Special and hazardous waste is still mixed with municipal waste from inhabitants.
- Insufficient separation of waste increases requirements for incineration of municipal waste. Only 10% of secondary raw materials from municipal waste is currently separated and sorted.

Lack of financial resources is the main challenge to finding solutions to old environmental burdens such as landfills. Nevertheless, projects are under way for their gradual redevelopment and reclamation. Efforts to improve management of waste before landfilling are being concentrated in three main areas:

- In order to reduce the production of municipal waste, it is necessary to expand and improve separate collection of secondary raw materials from municipal waste in accordance with the amended *Waste Act*. With this in mind, the City is focusing on increasing awareness among inhabitants in order to expand general separation of waste.
- Collection centres for troublesome substances and hazardous wastes have been constructed with the objective of eliminating them from municipal waste. This has the added benefit of reducing the production of harmful substances from their incineration.
- In the field of industrial waste, attention is being given to finalising environmentally-friendly landfills at U.S. Steel Košice (the City's biggest producer of industrial waste), as well as to utilisation of secondary raw materials from technological processes.

²⁵¹Cities Environment Reports on the Internet, *State of the Environment in Košice, 2001*, <http://www.cerol.net/reports/kosice/>

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Slovenia

Background and overview

Like many of the other countries in this study, Slovenia is facing environmental challenges created by a general lack of awareness and of use of effective waste management processes in the past. Landfilling has historically been the cheaper and therefore preferred option for waste disposal in Slovenia, as opposed to recovery or recycling. This was encouraged by national government grants for landfill construction. However, most landfills were poorly constructed with the result that they now pose a health and pollution hazard to surrounding areas. In most municipalities, waste management charges were too low to allow investment in new, environmentally safe landfills²⁵³.

Prior to 2000, Slovenia was recycling 29% of its packaging waste. This included 43% of paper and board, 36% glass, 16% metals, 10% wood and 5% plastics. At that time, there was still no incineration with energy recovery²⁵⁴. Slovenian businesses have traditionally had little interest in the recycling of packaging waste, mainly as a result of low quantities being produced and because they had no legal responsibilities with regard to packaging waste management. Consequently, many still used composites that are very difficult to recycle.

However, recent years have seen some dramatic changes in terms of legislation and investment in waste management, improved capacity of the government, and increased commitment by businesses. As an example of the latter, in June 1999 the major multinationals and some local companies established an **Industry Association for Packaging Waste (ODEM GIZ)**, which aims to focus business efforts towards recovery²⁵⁵. The European Commissioner for Environment announced in March 2001 that Slovenia was the first applicant country to complete the environmental chapter of its accession negotiations. It will have until 2007 to complete its implementation of the remaining directives.

Actors and Drivers

The **national government** has primary responsibility for environmental protection, except for matters that concern the development of towns, or where issues of local importance are involved. Consequently, the state is responsible for developing a *National Waste Management Plan*, and ensuring a waste management strategy in general by giving guidelines and setting national goals.²⁵⁶

²⁵³ EUROOPEN - The European organisation for packaging and environment, http://www.europen.be/test/members/report_web_3.html

²⁵⁴ Ibid

²⁵⁵ Ibid

²⁵⁶ European Topic Centre on Waste and Material Flows, http://waste.eionet.eu.int/wastebase/authorities/details_html?pk=SI-5

The **Ministry of the Environment and Spatial Planning**, together with the **Environmental Agency** and the **Inspectorate for the Environment and Spatial Planning**, has legislative and executive responsibility for environmental protection. The Ministry, with the Environmental Agency as acting body, is the authority that sets up the legislative framework for waste handling. The Environmental Agency has licensing and enforcement powers under environmental directives and operates an environmental protection information system. The Inspectorate performs inspection of environmental protection.²⁵⁷

Established in April 2001, the **Environmental Agency** has overall responsibility at the national level for the implementation of the EC acquis in the field of environment. It has absorbed existing institutions, such as the **Nature Protection Authority**, the **Hydro-meteorological Institute**, and the **Administration for Geophysics**²⁵⁸.

The **local public services** are responsible for all waste generated within their respective municipalities. This includes educating local citizens and businesses on how to handle waste and ensuring that all waste generated can be treated in an environmentally safe way. A municipality or wider local government unit may adopt its own environmental protection programme for its territory as long as this doesn't conflict with the *National Environmental Protection Programme*. It is also responsible for providing mandatory local public services relating to municipal waste treatment and disposal, dumping of the remains of municipal waste, public hygiene and maintaining public areas. One or more local authorities may also establish a supervisory service for environmental protection. The Ministry may authorise it to carry out specific activities and professional tasks relating to inspection²⁵⁹.

Policies:

In November 2000, a decree on *Packaging and Packaging Waste Treatment* came into force, which transposes the EC Packaging and Packaging Waste Directive. According to the decree, from 1 January 2004, producers of packaging or packaging raw materials, importers, packaged goods manufacturers and retailers will be obliged to cover the cost and ensure that packaging they have placed on the market in Slovenia is collected for reuse, reprocessing or disposal. The same will apply to end-users that import or purchase packaging or packaging material themselves. The decree sets targets for 2007 of 50%-65% overall recovery and 25%-45% recycling, with no material to be recycled at less than 15%.²⁶⁰

²⁵⁷ European Topic Centre on Waste and Material Flows,
http://waste.eionet.eu.int/wastebase/authorities/details_html?pk=SI-5

²⁵⁸ European Commission, *Regular Report on the Czech Republic's progress towards Accession*, 2002

²⁵⁹ EUROPEAN - European Topic Centre on Waste and Material Flows,
http://waste.eionet.eu.int/wastebase/authorities/details_html?pk=SI-5

²⁶⁰ The European organisation for packaging and environment,
http://www.europen.be/test/members/report_web_3.html

Companies have the option to either delegate their responsibility to a waste packaging handling company or to opt for self-compliance. In both cases, the packaging waste collected must be reused, recovered or disposed of by the end of the calendar year following the year of collection. Waste packaging handling companies ensure

- Regular pick-up of packaging waste from municipal collection centres
- Pick-up of commercial and industrial packaging waste from end-users or acceptance of this material at a collection point
- The reuse, reprocessing or disposal of the collected packaging waste.²⁶¹

Packaging producers, importers, packer/fillers and retailers who opt for self-compliance must obtain Environment Ministry approval and submit annual reports on how they are collecting and sorting the required amounts of packaging waste. They are also responsible for informing the public about take-back arrangements. If packaging placed on the market by an individual complier still occurs in the packaging waste management company's collection system, the individual company will be required to pay a fine. There are specific exceptions to the take-back obligation.²⁶²

A **Packaging and Packaging Waste Commission** was established in January 2001 to oversee implementation of the decree. Members include representatives from the relevant ministries, the Consumers' Association of Slovenia, individual associations within chambers of commerce and chambers of small business, the Association of Slovenian Urban Municipalities and representatives of producers and importers of packaging, packagers, packaging waste recycling contractors, and contractors for other methods of reprocessing packaging waste.²⁶³

A decree on *Treatment of Batteries and Accumulators* containing dangerous material also came into force in November 2000. Books of rules for packaging and packaging waste and for handling batteries and accumulators containing dangerous substances were also adopted in November 2000. A new decree on landfilling imposes a *Landfill Tax*, which aims to encourage diversion of waste away from disposal.

²⁶¹ Ibid

²⁶² The European organisation for packaging and environment, http://www.europen.be/test/members/report_web_3.html

²⁶³ The European organisation for packaging and environment, http://www.europen.be/test/members/report_web_3.html

The EU dimension - Progress on European Acquis Communautaire and support for improvements:

Alignment with the EC environmental acquis is well advanced in Slovenia. In the area of waste, transposition of the acquis is almost complete with the exception of the packaging and packaging waste directive. Slovenia has a well-developed waste management system in place. However, special efforts are needed with regards to implementation of the waste framework requirements.²⁶⁴

Slovenia's administrative capacity to deal with environmental protection has improved dramatically in recent years, but much still needs to be done. The European Commission has welcomed the creation of the Environmental Agency as part of putting in place the necessary institutions in the area of environment. However, it points out that competent authorities for many of the directives still need to be identified. In particular, local capacity to implement EC environmental directives needs to be strengthened.²⁶⁵

Special training has been provided to adequately implement the legislative requirements of the environmental impact assessment legislation. The number of staff dealing with EU issues, in particular in the field of waste management, water quality and inspection, has increased by nearly 50%.²⁶⁶

Sources and Resources

European Commission Directorate General for Enlargement

DG Enlargement, Directorate B – Slovenia Team

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<http://europa.eu.int/comm/enlargement/slovenia/index.htm>

European Commission Regular Report on the Czech Republic's progress towards Accession 2001 and 2002

http://europa.eu.int/comm/enlargement/report2001/si_en.pdf

http://europa.eu.int/comm/enlargement/report2002/si_en.pdf

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²⁶⁴ European Commission, *Regular Report on Slovenia's progress towards Accession, 2002*

²⁶⁵ European Commission, *Regular Report on Slovenia's progress towards Accession, 2002*

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Observations and Recommendations

There are significant challenges facing municipalities in the Accession Candidate countries as they seek to develop integrated waste management systems. Some of these challenges are outlined below, as are our recommendations on how to overcome them.

- While there are examples of successful waste management practices in parts of the CEEC, the reality is that these examples are little more than small pockets of success. In fact the organised collection of municipal waste does not cover the whole country in any of the 12 CEEC countries. And most of the areas covered do not meet existing EU standards.
- Citizen awareness and participation is virtually non-existent. Education in schools and universities on waste management practices is limited. This has a significant impact on a number of levels. Low levels of awareness reduce the viability of waste minimisation programmes. Low participation reduces the pressure on government to legislate and on business to innovate.
- The economic systems in the CEEC are plagued by high energy and material demands, and overdependence on virgin materials.
- Levels of waste recycling are significantly lower in comparison to the existing EU Member States. This is in part due to the lack of investments in waste recovery and recycling, and is also a consequence of a failure to promote a functioning market for recyclable goods.
- Municipalities in particular suffer from an overwhelming shortage of experience and know-how. This is a result of a systematic failure to develop networks of information exchange and capacity building. This information shortage is compounded by a similar deficiency in the development and transfer of new, environmentally friendly technologies.
- Non-enforcement of environmental laws and inadequate institutional structures for environmental management continue to be serious issues throughout the CEEC. It is clear that while transposition of EU environmental legislation has progressed at a good pace, there are, nevertheless, worrying signs that implementation and enforcement will be far more difficult. This is because the majority of the CEEC countries suffer from a distinct lack of administrative capacity, and a lack of awareness on the requirements of EU environmental legislation.

- According to the European Environment Agency many of the problems linked to Europe's growing waste volumes "can be solved if countries learn from others that have pioneered solutions"²⁶⁷. These "solutions" range from measures to tackle waste generation, excessive landfilling, lack of recycling, and failure to recover materials and resources. Regrettably such an exchange of information and know-how does not seem to be an established practice in the Accession candidates.
- The most striking problem is the failure to communicate. Local authorities rarely communicate with each other, have poor internal co-ordination between municipal departments, and have insufficient systems of consultation with local stakeholder groups. These problems, if left unchecked, will seriously undermine the efforts to implement and enforce environmental legislation.
- Municipalities in the CEEC suffer from a tremendous shortage of funds, thus limiting the options available to them. Although the European Union has channelled significant amounts to the CEEC during the past ten years it seems that much of this money has been consumed at the national level.
- Efficient waste management comes at a cost and this cost is presently too large for most municipalities in the CEEC. The provisions contained within waste legislation (especially those relating to taxes and charges) do not adequately cover the cost of providing quality waste management. Moreover, despite the influx of foreign aid and investment, most notably from the European Union, the bulk of this money remains tied up at the central level. The result is that too little money filters down to the local level where it is needed most.
- The development of the waste management sector throughout the CEEC has been effected by the shifting economic situation in the region. Environmental issues have taken a backseat to social and economic ones over the past decade. This trend could continue unless action is taken now.
- Most of the existing disposal installations, both landfills and incinerators do not comply with EU requirements and bringing them in compliance or closure of such facilities will require significant expenditures.

²⁶⁷ Henrik Jacobsen and Merete Kristoffersen (on behalf of the European Environment Agency), *Case Studies on waste minimisation practices in Europe*, January 2003

Each of these fundamental problems represents critical shortcomings in urban **GOVERNANCE** and significant barriers inhibiting the sustainable management of cities and towns. The region typically lacks a vision for environmental governance whereby stakeholders collaborate to address problems. In addition a re-think of how **FINANCIAL** support is offered and managed to the CEEC is also long overdue. Improving these problems will require specific action. This could include the following:

- A more **systematic approach to the collection of environmental information**, including more open and secure access to environmental information is needed. Lack of reliable data and information may cause serious problems with respect to planning, monitoring and enforcement. The use of data of unknown quality increases the probability and magnitude of decision-making errors if the data is used for such purposes as strategic planning, investment decisions, compliance assessment, enforcement and penalization.
- The full implementation of the **“polluter pays principle”** as a means to alleviate the strain on local finances. Too often, local taxpayers have to pay the main cost of environmental damage. The full implementation of the “polluter pays principle” through the European Union’s Environmental Liability Directive will ensure that those responsible for the environmental damage carry a greater share of the cost. This should involve obliging companies to take out full insurance cover, or give guarantees that they can pay for the cost of environmental clean-ups.
- **Greater engagement with the general public** and with the full range of stakeholders needs to become a priority in the CEEC. Local Agenda 21 has been embraced to great effect throughout the CEEC and particularly in the Baltic region. However, the LA 21 process has to date been too vague in nature and waste management issues have often been ignored.
- **Stakeholder co-operation** provides an opportunity to involve various interest groups, thus channelling their unique input and expertise into the decision-making process. The different perspectives and ideas that are brought to the discussions provide added depth to the policy that emerges. Moreover, by involving civil society and industry, local and regional authorities can build a coalition of support for their initiatives, providing new policy with legitimacy, and crucially, a greater chance for real implementation. **Mechanisms for increasing public participation and stakeholder co-operation should be developed.**

- **Training** for local officials, practitioners, and decision makers needs to be improved. Specific attention needs to be paid to improving knowledge of EU affairs and of new innovations in environmental policy and technology. Providing **technical assistance** to practitioners is a key aspect of improving training. It should involve increasing access to expertise; developing support groups among peers in municipalities across the CEEC; preparing and disseminating toolkits on environmental management; and organising workshops / training seminars for practitioners. The **Internet** can play an important role in this process. At present the internet is not being used as a "strategic ally". In other words few practitioners get what they need from the diverse possibilities offered by online software and tools. This can be changed quite easily.
- Effective **environmental communication** is decisive not only in the public identification and definition of the most urgent problems, but also in the building of the social, economic and political action networks, which are needed to reverse present unsustainable and negative environmental trends. Given that environmental impacts are felt most severely at the local level, there is also an understanding that local and regional government will be pivotal partners in defining a successful communication strategy.
- The European Union should spearhead an **improved financial package**, aimed specifically at local and regional government, and designed to inform and educate the general public on waste management issues. In addition, greater efforts should be made to ensure that available funds filter through to the local level, ensuring that municipalities have the appropriate capacity to Implement EU laws.

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