



7 proposals for a responsible approach to waste management

1 Agricultural recovery: Return organic matter to the soil, thereby restoring the soil's quality

2 Materials recovery:
Use waste to save raw materials

3 Energy recovery: Optimize the use of waste as a major source of renewable energy

4 Take action at all levels (national, Europe, world) to manage waste in ways that are socially responsible, to protect the environment and to foster research and education

5 Encourage the development of alternative transportation for waste and the use of clean fuels

6 Introduce tax incentives and financing policies that encourage better waste management

7 Institute an "environmental police force" to enforce a harmonized legal framework

The European—or even international—scope of waste management is now an essential facet of this sector. Almost 90% of current environmental regulations originate in the European Union and/or international legislation (for example, the Kyoto Protocol and the Basel Convention).

A number of legal texts that are of fundamental importance to waste management are currently under discussion in Brussels. They include the review of the waste framework Directive, the review of the IPPC Directive, the proposed soil framework Directive, the REACH² regulations, the energy policy and others.

Veolia Environmental Services' seven proposals are intended to contribute to the national debate in the perspective of what is happening throughout Europe and the world.

A sound approach to waste management contributes to sustainable development by introducing better social and environmental practices and by combating climate change through greenhouse gases avoided.

1 - IPPC: Integrated Pollution Prevention and Control

2 - REACH: Registration, Evaluation and Authorization of Chemicals



Turning waste into a resource

Agricultural recovery:

Return organic matter to the soil, thereby restoring the soil's quality

Soil degradation in all its forms has become a veritable plague worldwide: it has claimed 60% of farm land in Africa and Asia, 11% in Europe and 8% in North America³.

Soil impoverishment and pollution have dramatic repercussions for crop yields and quality.

Incentives have to be introduced to help develop the use of fertilizers and organic soil conditioners made from biomass. Biomass includes many forestry and agricultural products as well as the organic fraction of municipal and industrial waste streams. Non-fossil fertilizers have a very clear role to play in sustainable development by combating climate change and reducing imports.

Principle: Promote the return of organic matter to the soil and thereby improve degraded soil.

Agricultural recovery should be developed just as much as other recovery processes.

- › Promote source separation of biodegradable waste and collect hazardous wastes so as not to pollute the biodegradable fraction;
- › Put in place incentives for users to buy compost (under an agri-environmental measure as part of the Common Agricultural Policy) and financial aids based on each metric ton of compost commercialized;
- › Introduce investment systems to create centers that co-compost organic waste from different sources (household organic waste, municipal departments, the food and beverage industry, supermarkets, agricultural wastes, etc.).

Principle: Agricultural recovery contributes to restoring “soil as a common heritage”.

This involves supporting the trend toward returning organic matter to the soil, which is of great importance to how the ecosystem works.

- › Ensuring a minimal level of organic matter requires an overall vision that takes into account all the different parties involved and makes sure all actions are in line with a sustainable development policy;
- › The use of compost made from green residues or biodegradable waste is a way forward that deserves to be developed.

3 - UNEP, “UNEP’s Strategy on Land Use Management and Soil Conservation, A Strengthened Functional Approach”, Division of Policy Development and Law, 2004, 68 pages.



2

Turning waste into a resource

Materials recovery:

Use waste to save raw materials

Principle: Materials recovery is a way of preserving natural resources, protecting the environment and creating new jobs.

Waste is made up of secondary raw materials and biomaterials that can preserve our resources.

Sustainable waste management helps materials recovery through practices like separate collection of hazardous and non-hazardous wastes, and sorting materials such as timber, paper, cardboard, glass and metals thrown away by both industrial companies and private households.

- › Encourage the development of separate collection and rational management of specific waste streams;
- › Avoid polluting waste with other wastes (especially hazardous wastes) in order to assist materials recovery;
- › Recognize the contribution of materials recovery to reducing greenhouse gas emissions (through emissions avoided).

Materials recovery offers new outlets and creates jobs.

Waste recycling and recovery opens the way to new, environmentally friendly products such as biomaterials and biofuels.

- › Encourage research and development: many new techniques that will lead to viable industrial processes are currently being developed and should be supported through special measures;
- › Promote secondary raw materials and biomaterials that can be used in the same way as primary raw materials and offer environmental advantages.



3

Turning waste into a resource

Energy recovery:

Optimize the use of waste as a major source of renewable energy

Principle: Energy recovery is a way of developing renewable energy sources and reducing greenhouse gas emissions.

Energy recovery.

Do not overlook energy recovery from sources such as landfill gas and methanisation (anaerobic digestion), other types of wastes such as hazardous wastes (solvents and used oil) and non-hazardous wastes (packaging, used food oil (biodiesel fuel)), and energy recovery from incineration (waste-to-energy plants).

Renewable energy sources.

The role of the waste sector as a renewable energy producer should be recognized.

After sophisticated treatment, biomass can be transformed into fuel to produce heat, electricity and vehicle fuel. The different possibilities depend on the available technologies and the type of primary biomass used.

- › Tax incentives must be strengthened to encourage individual consumers and businesses to use biofuels;
- › The prices paid for electricity produced from green energy sources (biogas, biomass and waste) should be made more attractive;
- › The introduction of green certificates and energy saving certificates (white certificates) should become more widespread.

Greenhouse gas emissions avoided.

The waste sector produces a very low percentage of GHG emissions (3–4%). However, all contributions to the reduction of emissions are worthwhile.

- › The recovery of biogas from landfills is an important factor in reducing GHGs and is a source of green energy;
- › Energy recovery from biomass (forestry, agricultural waste, etc.) can also greatly reduce GHGs by producing renewable energy;
- › Develop investment systems for shared methane production facilities; international and domestic projects for agricultural waste, slurry and so on (Kyoto Protocol, ETS) can be a means of implementing this policy;
- › Develop financial aid for heat production;
- › Energy recovery must be extended and encouraged whenever materials recovery is not possible.



4 Take action at all levels (national, Europe, world) to manage waste in ways that are socially responsible, to protect the environment and to foster research and education

Principle: Specific procedures and processes must be developed to deal properly with certain waste streams.

There are many different waste streams that require diverse forms of treatment. The right balance has to be found between economic instruments and regulations in order to structure this area.

- › Ensure that workers' health and safety is taken into account;
- › Set targets for recycling, material, agricultural and energy recovery based on environmental performance;
- › Choose economic instruments that will develop these activities; their introduction could provide finance and encourage the parties involved to take the necessary measures;
- › Make it obligatory for producers to take back end-of-life products either directly or via dedicated organizations, for which sources of financing have yet to be decided;
- › Encourage including the cost of end-of-life treatment in the product sale price;
- › Develop ecodesign and take into account all end-of-life aspects in the product design phase.

End-of-life vehicles (ELV), batteries and Waste Electrical and Electronic Equipment (WEEE) are examples of specific waste streams that require specific treatment processes. Other such processes should be set up at the national or European and international level.

End-of-life ships, trains and airplanes, for example, generate waste streams for which specific processes must be put in place to conserve and protect the environment. Other types of wastes that can harm the environment must also be considered (distress flares, X-rays, mercury waste from the health care sector, etc.).

Principle: To be effective and ensure a high level of environmental safety, several elements have to be taken into account.

The health and safety of workers and the public is a priority and a precondition when putting in place treatment processes.

- › Existing international, EU and national regulations must be complied with;
- › Social and environmental requirements (information, employment, etc.) must underpin all decisions to put in place a new recycling process.

A clear distribution of the responsibilities of each party in the waste treatment chain is essential to ensure that treatment processes guarantee a high level of environmental protection.

Several kinds of responsibilities exist within the waste treatment chain. International, European and national laws contain conflicting definitions of responsibilities and clarifications are needed.

- › Extended Producer Responsibility obliges them to take into account all the "cradle-to-grave" impacts of their products. This concept is already in place for certain waste streams (ELV, WEEE and batteries), and is supported by economic instruments that enable and structure the existence of processes, such as the creation of eco-organizations, obligatory product take back, tax incentives and so on;
- › Responsibility of the waste producer, who is responsible for making sure that the waste is disposed of effectively and without harming the environment. Just like the product producer, the waste producer must meet traceability requirements and comply with the standards in force;
- › Responsibility of the waste holder, who is responsible for the waste received (which does not release waste producers from their own responsibilities);
- › Responsibilities of the other parties in the treatment chain, such as traders and brokers; their role is of particular importance given recent problems with the transportation of waste within Europe and to other countries.

The waste economy : driving employment and innovation.

Environmental protection drives job creation and competitiveness by providing opportunities for innovation.

- › Foster trainings and education for workers, especially those with difficulties accessing the labor market ;
- › Innovation is an economic growth factor (for the EU, reaching the 3% of GDP allocated for research by 2010 under the Lisbon agenda);
- › Encourage innovating companies and synergies between public and private research.

5 Encourage the development of alternative transportation for waste and the use of clean fuels

Principle: Sustainable waste management requires the rationalization of waste transfer and transportation.

Encourage multimodal, environmentally sound waste transportation.

- › Make use of rail and river transportation rather than road transportation;
- › Provide incentives for alternative transportation, which has a high impact on reducing greenhouse gas emissions;
- › Encourage international and domestic projects (Kyoto Protocol, ETS) as a means of implementing the policy;
- › Take environmental performance into account in the choice of transportation (depending on the type of waste to be transported, emissions avoided, tonnage, distances traveled, etc.).

Principle: Waste management must be governed by a local policy that complies with international, European and national guidelines, enabling a development approach for each relevant area that takes into account local and economic conditions.

The choice of the best solution can be made as a function of the type of waste, taking into account the overall environmental performance. The most appropriate basis—that which will enable environmental impacts to be minimized—is the economic area. The choice must be guided by using tools such as life cycle analysis and performance indicators.

- › There must be better coordination of sub-national waste management plans within the European framework;
- › Implement a more flexible sub-national approach that is more transparent and appropriate for local conditions but in an overall framework;
- › Control cross-border waste transportation and transfers under conditions that comply with national, EU and international legislation (Basel Convention, OECD, European waste shipment regulation).



6

Introduce tax incentives and financing policies that encourage better waste management

Principle: Use revenues from environmental taxes for the purpose of environmental protection and sustainable development, and encourage sustainable waste management.

Tax incentives, appropriate financing and clearly identified responsibilities are the factors for efficient, economically viable management.

Tax incentives and innovative means of financing local waste management service must be developed. It is also necessary to set out a clear distribution of financial and organizational responsibilities between the various parties (producers, distributors and holders) involved in managing the different waste streams that come under the concept of Extended Producer Responsibility.

Tax incentives.

- › Use revenues from the taxes on polluting activities for environmental purposes, in particular for waste management;
- › Taxation must help protect the environment while at the same time create jobs, in particular through incentives to use the best available technologies;
- › Promote the introduction of a waste collection service charge that encourages households to improve their waste separation behavior;
- › Comply with regulations by introducing a special service charge for the waste produced by tradespeople, storekeepers and so on.

Appropriate financing.

- › Local public authorities should allocate a specific budget to waste treatment;
- › Encourage separate collection of dispersed hazardous wastes to avoid polluting other wastes, thereby optimizing waste management;
- › Promote implementation of and compliance with the Local Public Services Charter and environmental performance indicators.

Clearly identified responsibilities.

The introduction of the Extended Producer Responsibility should be seen as a means of structuring these processes. This implies putting in place economic instruments (taxes and obligatory take back) and a fair division of the costs involved (too often charged to households).

- › Enable a higher percentage of the costs to be taken in charge by the product producers, thereby encouraging them to introduce ecodesign concepts. Setting targets (for example, the percentage of the price of treatment to be covered by the producer and by the public authority) could speed up the move toward sustainable waste management;
- › Encourage individual citizens and industrial companies to reduce the quantity and the toxicity of their waste.



7

Institute an “*environmental police force*” to enforce a harmonized legal framework

Principle: Rational and sustainable waste management requires a common legislative and regulatory framework that is harmonized at the national, European and international levels to cover all facilities.

Ensure there is a harmonized legal framework.

Emission standards, financial guarantees and environmental liabilities must be the same for all facilities.

- › All private- or public-sector classified facilities that treat or use waste should be subject to the same regulations, such as authorization limits, emission and residues standards during operation, and post-operation (responsibilities and financial guarantees);
- › The application of environmental indicators should allow environmental, social and local criteria and constraints to be better taken into account (indicators).

The list of classified facilities for environmental protection should be reviewed in line with the review of the EU’s IPPC Directive in order to adjust to recent and foreseeable developments in waste management technologies (sorting, transfer, consolidation, recovery, recycling and disposal). Harmonization is needed in each activity.

Principle: Rational and sustainable waste management requires the strict application of regulations and controls of each party’s compliance with obligations.

Organize an “*environmental police force*” to enforce the harmonized framework.

What is needed is not an increase in resources but rather their redistribution, and also an effort to render visible the actions taken by the state:

- › More organizations should be developed to combine and professionalize the action of various enforcement bodies, such as customs, the police, fraud repression and so on;
- › Self-audit procedures, accompanied by high penalties for non-compliance, are a means of improving controls without increasing public expenditure;
- › The need for secondary raw materials is resulting in increasingly large waste flows. These flows of secondary materials/wastes represent growing markets and savings of raw materials that must be monitored and regulated in order to avoid negative environmental and social impacts.



Veolia Environmental Services is in favor of all solutions that improve environmental, economic and social performance as part of a sustainable development approach and clear policies that would enable the implementation of adequate and competitive solutions.

For further information on our waste management activities
and environmental services, go to
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