

# Towards a recycling society

**The National Waste Plan for 2016**

ENVIRONMENTAL  
PROTECTION





# Towards a recycling society

**The National Waste Plan for 2016**

Helsinki 2009

**MINISTRY OF THE ENVIRONMENT**



YMPÄRISTÖMINISTERIÖ  
MILJÖMINISTERIET  
MINISTRY OF THE ENVIRONMENT

THE FINNISH ENVIRONMENT 14 | 2009  
Ministry of the Environment  
Environmental Protection Department

Layout: Marjatta Naukkarinen  
Photo: Vesa Härkönen

The publication is available in the Internet:  
<http://www.environment.fi/publications>

Helsinki 2009

ISBN 978-952-11-3440-1 (PDF)  
ISSN 1796-1637 (verkkoj.)

## FOREWORD

On 10 April 2008, the Finnish Government approved the National Waste Plan for 2016, which will guide Finland's path towards a recycling society. The main aim of the Plan is to introduce a five-stage waste hierarchy: prevention of waste generation – reuse – recycling of materials – use as energy – disposal at landfills. The Plan presents the objectives and aims for waste management and the prevention of waste generation for 2016 and the measures required for achieving them. Finland's national plan for preventing waste generation and seven other overlapping aims for waste management sectors are also incorporated in the Plan.

The National Waste Plan provides a steering instrument for achieving the objectives of and carrying out preparations for regional waste plans. The regional plans are based on regional requirements and development needs.

The National Waste Plan was prepared in a working group in which a broad range of stakeholders was represented. The Ministry of the Environment drew up the final proposal for the Plan on the basis of the draft submitted by the working group and the opinions issued on it.

The preparatory process was characterised by a high degree of openness and interaction and was in accordance with the general obligation to assess its environmental impacts, as laid down in the Act on Environmental Impact Assessment Procedure.

A separate background document, containing a report on the implementation of the previous national waste plan, was drawn up in connection with the work and published in the Finnish Environment Series. The background document also details the background for the main aims of the new plan, current steering methods and development needs and gives scenarios for the state of Finland's waste management in 2016.

A number of reports were commissioned in connection with the preparation of the new plan:

- National Waste Plan for 2016 – Background document, Finnish Environment 16/2007 (in Finnish)
- The role and critical limits of waste co-incineration in Finland's waste disposal strategy, Background document, Part I, Reports of the Finnish Environment Institute 15/2006 (in Finnish)
- Assessing the impacts of the promotion of material efficiency, Background document, Part II, Reports of the Finnish Environment Institute 9/2006 (in Finnish)
- Environmental aspects of energy and material recovery of wastes, Background document, Part III, Reports of the Finnish Environment Institute 12/2006 (in Finnish)
- Identification and assessment of the environmental impacts of landfilled industrial waste, Background document, Part IV, Reports of the Finnish Environment Institute 2/2007 (in Finnish)
- Role of municipalities in future waste management, Background document, Part V, Reports of the Finnish Environment Institute 8/2007 (in Finnish)

- Assessing the impacts of the proposed steering methods, Background document, Part VI, Reports of the Finnish Environment Institute 9/2007 (in Finnish)
- Assessing the cost impacts of the National Waste Plan, Pöyry, Report 29 May 2007 (in Finnish)

The aim is to achieve a decline in the amount of municipal waste by the year 2016. Furthermore, the aim is to achieve a situation in which 80 % of municipal waste is recycled or used as energy and a maximum of 20 % ends up at landfills. These and other aims proposed in the Plan can only be achieved if all players in the waste management sector commit themselves to its aims and take action to reach them and if there are substantial changes to current waste-management and recovery practices.

The Ministry of the Environment would like to extend its thanks to all those who have taken part in the preparation of the National Waste Plan for their constructive and successful cooperation.

Ministry of the Environment

## CONTENT

<b>Foreword</b> .....	3
<b>Towards a recycling society</b> .....	7
<b>The National Waste Plan for 2016</b> .....	7
<b>Summary</b> .....	7
<b>General objectives of waste policy</b> .....	9
<b>Objectives concerning waste prevention and recovery of waste</b> .....	10
<b>The required capacity for treating municipal waste in 2016</b> .....	10
<b>Detailed aims for waste management and specific measures required to reach them</b> .....	11
1 Improving material efficiency in production and consumption – Finland’s national waste prevention programme .....	11
2 Making recycling more efficient .....	15
3 Managing hazardous substances from the point of view of waste .....	19
4 Reducing the harmful climatic impacts of waste management .....	22
5 Reducing the harmful health and environmental impacts of waste management .....	24
6 Developing and clarifying the organisation of waste management .....	26
7 Developing waste-related expertise .....	28
8 Ensuring safe and well-managed shipments of waste .....	30
<b>Monitoring and indicators</b> .....	30
<b>Background</b> .....	31
Documentation page .....	34
Kuvailulehti .....	35
Presentationsblad .....	36





# Towards a recycling society

## The National Waste Plan for 2016

The Government has approved this national waste plan for 2016 on the proposal of the Ministry of the Environment. It contains proposals for measures aimed at promoting sensible use of natural resources, developing waste management, combating the hazards caused by waste and preventing its environmental and health impacts.

The Plan replaces the National Waste Plan for 2005 approved by the Government on 2 July 1998 as amended on 14 August 2002 by the revised National Waste Plan for 2005.

The Plan will remain in force until 31 December 2016 or until the coming into force of the next waste plan.

## Summary

The aims and the principal steering measures required for meeting the aims are grouped under eight objectives. The objectives cover most sectors of waste management, including municipal waste management, and the waste management in industry, mineral extraction, construction, agriculture, trade and services. The aims concerning material efficiency also apply to activities carried out in society at large in a more general sense. Finland's national plan for preventing waste generation is incorporated in the National Waste Plan.

The Government decision on a national waste plan will be implemented within the Government's budgetary framework and productivity programme.

### *1. Increasing the waste prevention by promoting material efficiency*

Material efficiency of products will be promoted by incorporating material efficiency criteria in product standards, implementation provisions and criteria for ecolabels and public procurement. Material efficiency in different sectors will be improved through agreements between the Government and industry in the same manner as in energy-saving agreements. Motiva's<sup>1</sup> material efficiency unit will assist in the promotion of material efficiency in companies, public administration and households.

Studies will be carried out on which natural resources should, from the point of view of the environmental policy, be subjected to economic steering. At the same time, the feasibility of such steering and the potential and impacts of harmful subsidies will also be examined. In the construction sector, support will be directed at renovation and the promotion of building maintenance. The revision of legislation will involve the clarification of the organisation and responsibilities of waste advisory services,

<sup>1</sup> Motiva Oy provides expertise and project services to promote more efficient material and energy use and to accelerate the uptake of renewable energy sources. The company's entire share stock is in Finnish state ownership.

while at the same time it will also be examined whether municipalities could assume responsibility for more extensive advisory services covering sustainable consumption, which would be in addition to the existing waste advisory services. The need for and chances of extending the scope of the household deduction so that households would be encouraged to make more use of repair services will be examined.

## ***2. Increasing recycling***

Quality and environmental compliance criteria will be drawn up for certain recycled materials. Recycled materials will be given priority in public construction and the use of waste-based fertiliser products will be promoted in landscaping and in agriculture by providing advice on the matter.

Studies will be carried out on the revision of waste taxation. The aim is to eliminate the deficiencies of the existing tax scheme and to create a steering model that will best promote the objectives of waste management. Permit conditions and guidelines for individual waste categories will also be used to encourage the recycling of industrial waste flows. Studies will be carried out on how to decrease the amount of construction waste and how to increase recycling of this waste category. Incentive-based waste charges will be introduced to make the sorting of municipal waste more efficient.

## ***3. Promoting the management of hazardous substances from the waste point of view***

Measures will be taken to promote the replacement of hazardous substances causing harmful impacts during their waste phase with less hazardous alternatives. Advisory services covering the sorting of hazardous waste will be made more effective. Safe use of recycled materials will be guaranteed. Steps will be taken to make the quality assurance and market surveillance of waste-based fertiliser products more effective. Cooperation between different authorities in the remediation of contaminated sites will be put on a more efficient basis, while at the same time, more funds will be allocated to supporting remediation projects.

## ***4. Reducing the harmful climatic impacts of waste management***

Changes to the Government decision on landfills will be drawn up so that the restrictions on the landfilling of biodegradable waste can be put on a concrete basis. There will be more use of waste as energy, while at the same time it will be ensured that materials suitable for recycling are not incinerated in substantial amounts. Permit-based steering will be used for ensuring an adequate energy efficiency of waste incineration and efficient recovery of landfill gas. Measures will be taken to promote the construction of biogas plants so that manure and certain other types of waste can be utilised.

## ***5. Reducing negative health and environmental impacts of waste management***

The negative health and environmental impacts of waste treatment will be minimised by paying more attention to occupational safety and the use of best available technology. Measures will be taken to ensure high standards of waste management at existing and future mines and in connection with ore enrichment. Additional guidelines concerning animal by-products, ash generated by waste incineration and waste management during exceptional situations will be provided. Municipalities will ensure that the collection of sludge in rural areas will be put on an efficient basis and that the collection capacity is sufficient.

## *6. Improving and clarifying the organisation of waste management*

Division of labour between the municipalities, producer responsibility organisations, generators of waste and private waste management companies and the organisation of waste advisory services will be examined in connection with the overall revision of the Waste Act. Regional waste plans will be given a more prominent role and steps will be taken to ensure that enough land is reserved during land use planning for waste management. The need for developing the management of waste covered by produced responsibility will be assessed.

## *7. Developing expertise in the waste sector*

Material efficiency and business will be promoted through private and public research and development funding. The chances of launching a technology programme will be assessed. Measures will be taken to ensure sufficient funding for research and development of steering measures of material efficiency. Measures will be taken to provide SMEs with more services allowing them to improve their waste management and material efficiency. The process of improving waste statistics and classification will continue. A programme for monitoring the implementation of the objectives of the National Waste Plan and its most important steering measures will be drawn up and the monitoring indicators selected.

## *8. Putting transfrontier waste shipments on a safe and well-managed basis*

International action will be taken to combat illegal waste shipments and further measures will be taken to expand cooperation between authorities in the border control of waste shipments. The work on the international harmonisation of waste classification and the interpretation of waste shipment legislation will be continued.

## **General objectives of waste policy**

The central objective of waste policy is to reduce the harmful health and environmental impacts of waste. In order to meet this objective, it is particularly important to:

- prevent the generation of waste
- promote reuse of waste
- promote biological recovery of waste and recycling of materials
- promote energy use of waste not suited for recycling
- ensure that the treatment and disposal of waste does not cause any harmful impacts

The main climate-related objective of waste policy is to reduce the greenhouse gas emissions generated by waste, particularly by reducing the methane emissions resulting from treatment at landfills. In order to reach the objective, the amount of landfilled biodegradable waste will be substantially reduced, while at the same time measures will be taken to increase the recovery rates of methane generated at landfills.

## Objectives concerning waste prevention and recovery of waste

The aim is to stabilise the amount of municipal waste at the level of the early years of this century (2.3–2.5 million tonnes annually) and then ensure that the trend will be downwards by the year 2016.

Moreover, the aim is to ensure that in 2016, some 50 % of all municipal waste is recycled as material and 30 % used as energy. Not more than 20 % of the total should be landfilled. Municipal waste is waste that is generated by households and similar waste generated in connection with industrial, service and other operations.

The aim is that all manure generated in connection with rural businesses would be recovered. Some 10 % of this amount or about 2.1 million tonnes would be treated in biogas plants at farms. At least 10 % of all sludge generated in rural areas and collected using septic tanks and cesspools would also be treated in these plants. The aim is that in 2016, some 90 % of all sludge generated in rural areas would be treated in wastewater treatment plants and the remaining 10 % in biogas plants at farms. Tighter legislation on wastewater emissions in rural areas will probably increase the amount of sludge generated outside built-up areas.

The aim is that in 2016, at least 70 % of all construction waste will be used as material and energy. By 2016, the focus of construction will probably have shifted from new construction to renovation, which would also mean that most of the construction waste would be generated in connection with renovation.

The aim is that by 2016, some 5 % (3–4 million tonnes) of the gravel and crushed stone used in earthworks will have been replaced by waste generated by industry and mineral extraction.

There is not enough information available on other industrial waste categories and therefore no quantitative objectives can be set for them. The plan envisages that individual industrial sectors would in their own material-efficiency agreements set targets for reducing the amounts of their specific waste volumes and for increasing recycling rates (see Aim 1.2.2).

The aim is that by 2016, 100 % of all municipal sludge will be recovered, either to be used as energy or for soil conditioning. It is estimated that the amount of municipal sludge generated will remain more or less at present levels.

## The required capacity for treating municipal waste in 2016

If the above-mentioned recovery objectives are to be achieved, the targeted waste amounts (less than 2.3–2.5 million tonnes/year) will require a composting or digestion capacity of between 320,000 and 350,000 tonnes by 2016. Other materials would require a recovery capacity of between 700,000 and 750,000 tonnes.

At the same time, incineration capacity required for energy use would be between 700,000 and 750,000 tonnes. This total includes waste incineration in incineration and co-incineration plants.

The aim of the National Waste Plan is that by 2016 a maximum of between 460,000 and 500,000 tonnes of municipal waste would end up at landfills and that in 2016, landfills would number between 30 and 40.

Table I.  
Treated and recovered amounts of solid municipal waste in 2006 and the capacity required in 2016 for the targeted amounts and recovery rates.

Plants recovering or treating municipal waste	Treated amounts in 2006 (1,000 tonnes)	Percentage of the municipal waste generated in 2006	Required capacity in 2016 for targeted amounts of waste (1,000 tonnes)	Percentage of the municipal waste generated in 2016 (= Targets for recovery and treatment)
Composting or biogas plant (digestion)	137	5	320–350	14
Composting at source	54	2	140–150	6
Material recycling (excl. composting and digestion)	648	25	700–750	30
Waste incineration plant or co-incineration plant	222	9	700–750	30
Landfill	1,504	59	460–500	20
<b>Total</b>	<b>2,565</b>	<b>100</b>	<b>&lt;2,300–2,500</b>	<b>100</b>

## Detailed aims for waste management and specific measures required to reach them

### I Improving material efficiency in production and consumption – Finland’s national waste prevention programme

#### Aim 1.1 Improving material efficiency in the main product categories

**1.1.1 Finland will promote the incorporation of material efficiency criteria in product standards, implementation provisions covering the ecological development of energy-using products, ecolabels and quality criteria covering public procurement** in product categories where improvements in material efficiency can substantially promote the sustainable use of natural resources. When the criteria are drawn up, attention will be paid to the consumption of natural resources during the products’ life cycle and to the amount of waste generated and its harmfulness. The authorities will be allocated sufficient resources so that they can take part in the work and non-governmental organisations will also be encouraged to participate in the efforts.

*Responsible party: Ministry of the Environment*, in cooperation with the Ministry of Employment and the Economy, Confederation of Finnish Industries EK, sectoral organisations, producer corporations, Finnish Environment Institute, Finnish Standards Association (SFS), Motiva and non-governmental organisations

**1.1.2 The minimum requirements laid down in consumer protection legislation and its application guidelines covering labelling and warranties will be revised.** The consumers’ right to get information about the durability of the products will be broadened.

*Responsible parties: Ministry of Employment and the Economy, Ministry of Justice and the Consumer Agency*, in cooperation with sectoral organisations, Finnish Environment Institute and research institutes

**1.1.3 If possible, funding will be made available to the service centre for material efficiency established in 2007.** The funding will come from the appropriations granted to the administrative sectors of the Ministry of Employment and the Economy and the Ministry of the Environment. The service centre promotes material efficiency in companies, the public administration and households by, for example, providing consultancy services and advice. The service is analogous to energy-saving advisory services.

The tasks allocated to the service centre for material efficiency as part of the implementation of the National Waste Plan may include

- the administration of sectoral or product-group specific material efficiency agreements or product panels and development work promoting them
- the development and updating of methods and databanks connected with material and eco-efficiency and life cycle calculations in conjunction with the cooperation network (see section 7, Developing waste-related expertise).

*Responsible parties: Ministry of Employment and the Economy and Ministry of the Environment, in cooperation with Motiva, companies, research institutes and organisations*

#### **1.1.4 Other recommended measures aimed at improving the material efficiency of products:**

- The Ministry of the Environment should issue guidelines on how the producers' and manufacturers' duty to be well-informed about the waste resulting from the product and ways of reducing its quantity and harmfulness laid down in section 51 of the Waste Act should be met.
- Minimum requirements concerning product durability, updatability and reparability and other material-efficiency features should be incorporated in the quality criteria for public procurement tendering and the focus should be on major product groups.
- Reuse of reusable, repairable and updatable products and building components should be promoted in a cooperative effort involving the municipalities, producer corporations, companies, the third sector and employment authorities.

### **Aim 1.2 Improving material efficiency in industry and mineral extraction**

**1.2.1 Studies will be carried out on which natural resources should, from the point of view of environmental policy, be subjected to economic steering and how feasible such steering would be.** At the same time, the potential and impacts of harmful subsidies will also be examined. The necessary decisions on using economic steering for promoting material efficiency will be made on the basis of the studies.

*Responsible parties: Ministry of Finance and Ministry of the Environment, in cooperation with the Ministry of Employment and the Economy, Ministry of Agriculture and Forestry and organisations representing different interest groups*

**1.2.2 Sectoral agreements will be concluded on a trial basis as an instrument for increasing material efficiency in production.** The agreements will be based on the main processes of the sectors concerned, while at the same time such factors influencing the prevention of waste generation and material efficiency as the variation in specific waste volumes and the specific waste volumes achievable using the best available technology will be examined. The sectoral organisations and individual companies

joining the agreement will undertake to make every effort, using methods of their own choosing, to reach the targeted reductions in specific waste volumes and the improvements in material efficiency. The companies will also undertake to publicly report on their progress towards meeting the targets.

*Responsible parties: Ministry of the Environment and Ministry of Employment and the Economy, in cooperation with the Confederation of Finnish Industries EK, sectoral organisations, Motiva's material efficiency unit, research institutes and permit authorities*

**1.2.3 Services aimed at improving waste management and material efficiency in SMEs will be developed.** The productivised expert service tested by a number of Employment and Economic Development Centres (Ecostart) or other similar service might be a suitable model for the purpose.

*Responsible parties: Employment and Economic Development Centres, in cooperation with the Ministry of Employment and the Economy, Ministry of the Environment, companies and consultants*

**1.2.4 The organisation, responsibilities and funding of waste advisory services will be clarified, particularly in the area of waste prevention advisory services in companies and on waste under producer responsibility.** This will be made in connection with the overall review of the waste legislation. The need for imposing a monitoring or reporting obligation on the advisory services will also be examined.

*Responsible party: Ministry of the Environment, in cooperation with the Finnish Environment Institute*

**1.2.5 Other recommended measures aimed at improving material efficiency in production:**

- Information on material efficiency and specific waste volumes should be gradually incorporated in the sectoral BREF documents of the EU. Finland should also draw up national documents on this subject.
- The obligations concerning improvements in material efficiency and the powers of the authorities to issue appropriate permit conditions should be clarified as part of the revision of the waste and environmental legislation.
- Finland should support the recently established international natural resource panel. The support could be in the form of national reports on eco-efficiency in specific sectors and exchanging information with other EU countries on best practices and economic steering mechanisms.

### **Aim 1.3 Extending the useful life of buildings**

**1.3.1 Steps will be taken to promote systematic building maintenance and material-efficient building renovation.** Systematic and continuing maintenance, which is the key to extending the useful life of buildings, will be promoted in close cooperation with property owners. The maintenance factor and the material efficiency of renovation will be taken into account when the programme for implementing the renovation strategy is prepared.

*Responsible parties: Housing and Building Department of the Ministry of the Environment and the Housing Finance and Development Centre of Finland (ARA), in cooperation with*



the Finnish Real Estate Federation, builders, property owners, municipalities, planners and the Ministry of Agriculture and Forestry

**1.3.2 Material efficiency in new construction will be promoted using the environmental classification system for buildings** (Promise) or other similar system. The environmental classification system for buildings is a tool based on environmental criteria jointly agreed by the authorities and the operators in the sector and it is used for assessing the environmental qualities of buildings.

*Responsible party: The Building Information Foundation RTS, in cooperation with builders and property owners*

**1.3.3 Other recommended measures aimed at improving material efficiency of buildings:**

- In the design and construction of buildings and building supervision, emphasis should be on building convertibility, durability of structures, prevention of water and mould damage and the updatability of building automation. Constructors of low-rise buildings should be provided with more extensive advice.
- Support should be given to pilot construction projects that promote new innovations in the area of sustainable construction and the prevention of waste generation.
- Constructors should set targets for the eco-efficiency of buildings' life cycle in their quality and environmental systems and in the terms and conditions of requests for tenders.

**Aim 1.4 The focus in private consumption will be on eco-efficient products and services, while at the same time the generation of household waste will be reduced**

**1.4.1 Provision of advice aimed at preventing waste generation will be made more efficient.** Under the Waste Act, municipalities must provide waste advisory services and, to a certain extent, advice on how to prevent waste generation. The cost resulting from the provision of advice concerning the waste coming under the municipal waste transport scheme (household waste and comparable waste generated as a result of public-sector operations and other waste that companies and municipalities have agreed to include in the municipal waste scheme), can, in accordance with the polluter-pays principle, be covered with waste charges. A sufficient proportion of the resources allocated to the advisory services must be directed at advisory services aimed at preventing waste generation (clarification of responsibilities concerning the advisory services in connection with the prevention of waste generation by companies, see Aim 1.2.4). The question of municipal responsibility for providing more extensive advisory services promoting sustainable consumption will be examined in connection with the revision of the waste and environmental legislation.

*Responsible party: Ministry of the Environment, in cooperation with municipalities*

**1.4.2 National advisory support services and information material on material efficiency will be provided** by Motiva's material efficiency unit, the Finnish Environment Institute, the Consumer Agency and the National Consumer Research Centre. Of the services directed at the public, the promotion of material efficiency at household level, household purchases, use and maintenance of equipment, transport



and mobility, leisure activities and services are the areas best suited for the service centre for material efficiency.

*Responsible party: Motiva's material efficiency unit, in cooperation with the Ministry of Employment and the Economy, Ministry of the Environment, Consumer Agency, National Consumer Research Centre, Finnish Environment Institute and municipalities*

**1.4.3 The need for and chances of providing a more extensive household deduction and its benefits** in connection with maintenance and repair services aimed at extending the useful life of household appliances, furniture and other consumer durables and in connection with purchases of renovation design services will be examined.

*Responsible parties: Ministry of the Environment and Ministry of Finance, in cooperation with service providers and households*

**1.4.4 Other recommended measures aimed at improving material efficiency of consumption:**

- Authorities and municipal waste treatment plants should make more use of the expertise and active involvement of non-governmental organisations by for example planning and implementing information campaigns that are purchased from the organisations. Schools, educational institutions and libraries play a central role as channels for distributing the information. The private sector, including retail chains and other companies, may also help to provide consumers and their own staff with advice.
- Day-care centres, comprehensive schools, upper secondary schools and universities should, as part of their operating and financial plans and quality management principles, draw up operating plans for their own organisations in which consideration will be given to sustainable production and consumption.
- Companies should improve their customer service by adding information and other key data on eco-efficiency to product labels.
- In their industrial policy, municipalities should pay more attention to small businesses providing repair services. This would be in the form of offering low-cost premises and publicity emphasising their ecological nature and employment opportunities.

## 2 Making recycling more efficient

### **Aim 2.1 Growing demand for recycled materials**

**2.1.1 Drawing up quality and environmental compliance criteria for recycled material:**

a) Extending the scope of application of the decree on the use of waste for earthworks to cover additional recycled materials so that when used for certain purposes these materials would, instead of a permit, only require a notification. The extension could cover crushed bricks, foundry sand and certain types of solid waste, sludge and precipitate generated in industry.

*Responsible party: Ministry of the Environment, in cooperation with research institutes, companies in the sector, sectoral organisations and the National Product Control Agency for Welfare and Health*

b) Finland will be actively involved in a preparatory process at EU level the aim of which is to draw up assessment criteria for certain recycled materials as a result of which certain types of waste would no longer be considered as waste. The new criteria could cover various composting products, recycled materials suitable for earthworks and building products, scrap metals, waste paper and waste glass.

*Responsible party: Ministry of the Environment, in cooperation with the Finnish Environment Institute, the ministries concerned and organisations*

**2.1.2 The aim is to achieve a substantial increase in the use of recycled materials meeting quality criteria in earthworks carried out in projects covered by central and local government public procurement**, compared with 2005 levels. The use of recycled materials will also be increased in landscaping and housing construction. Public procurement guidelines and support services will be used to make those responsible for procurement more aware of the potential uses of recycled materials and products.

*Responsible parties: Ministry of Transport and Communications and Ministry of the Environment, in cooperation with the Finnish Road Administration, Senate Properties, municipalities and the Finnish Environment Institute*

**2.1.3 Advisory services, provision of information and testing will help to promote the use of waste-based fertiliser products** in landscaping and arable farming (including the production of energy crops). The use of ash from wood, peat and cultivated biomass that meets the required quality criteria and is suitable for forest fertilisation will be encouraged in both government-owned and privately-owned forests. Efforts will be made to promote the use of ash fertilisation by, for example, providing private forest owners with advice on the matter.

*Responsible party: Ministry of Agriculture and Forestry, in cooperation with Employment and Economic Development Centres, the Central Union of Agricultural Producers and Forest Owners MTK, the Finnish Food Safety Authority Evira, advisory organisations, media, forest centres, forest management associations, Metsähallitus, Forestry Development Centre Tapio, Finnish Forest Research Institute, Ministry of the Environment, Finnish Environment Institute and environmental authorities*

**2.1.4 Other recommended measures aimed at increasing demand for recycled products:**

- Finland should promote the incorporation of standards of recycled materials in product standards for building products and packaging by taking part in the deliberations of the working groups of the European Committee for Standardization (CEN) discussing these issues.
- Support should be given to research aimed at improving the quality of recycled materials and demonstration projects in which recycled materials are used as building materials. Productivisation and use of recycled plastics, biodegradable plastic and waste-based plastic composites should also be encouraged.

## Aim 2.2 Recycling of industrial and construction waste will increase

**2.2.1 Administrative steering of production waste during the processing and renewing of environmental permits for industry** will be made more efficient so that attention will be on the recycling of large waste flows ending up at landfills. If necessary, examination obligations will also be imposed. When permits are renewed, the interpretations concerning the classification of secondary industrial flows as by-products or waste will be harmonised, taking into account the precedents of the Finnish Supreme Court and the Court of Justice of the European Communities and the guidelines issued by the European Commission.

*Responsible party: permit authorities*, in cooperation with the Ministry of the Environment, companies and consultants

**2.2.2 Options for steering construction waste management will be examined.** Attention will be on methods that help to reduce the amount of construction, demolition and renovation waste and put their recycling on a more efficient basis than what is required under the existing Government decree.

*Responsible party: Ministry of the Environment*, in cooperation with the Finnish Environment Centre and national organisations in the construction sector

**2.2.3 Other recommended measures aimed at improving production-related recycling:**

- The recovery of a number of commonly used industrial waste categories should be encouraged by issuing guidelines on individual waste categories. Recovery permit procedures could also be speeded up by drawing up draft decisions for typical cases. Such waste categories could include certain industrial sludges and precipitates and reinforced plastic waste.
- Companies should engage in sectoral cooperation in order to examine new recovery possibilities. Recycling of certain types of hazardous waste such as industrial metal dust could be encouraged in Finland through industrial cooperation.
- Municipalities should make the supervision of building demolition more efficient so that the amount of recyclable waste ending up at landfills could be reduced. Municipalities should also make the use of spoil more efficient by, for example, setting up banks for earth materials.

## Aim 2.3 Increasing recycling of municipal waste

**2.3.1 The working group examining the revision of waste taxation appointed by the Ministry of Finance will endeavour to find a steering model directed at waste that would best achieve the waste management targets Finland has set for itself.** The work will involve the charting of the deficiencies of the waste tax and chances of eliminating them. At the same time, the fairness and the competition-neutral character of the waste tax will be ensured.

*Responsible party: Ministry of Finance*, in cooperation with the Ministry of the Environment, National Board of Customs, Ministry of Employment and the Economy and the Finnish Competition Authority

**2.3.2 Waste strategies and waste regulations of the municipalities, municipal waste treatment plants and joint municipal boards must be drawn up and other areas of waste management planned and developed in accordance with the principle of waste hierarchy.** The aims of the waste strategies and the measures taken as part of them must be in accordance with the principle of sorting and recycling.

*Responsible parties: municipalities and other waste management operators*

**2.3.3 Sorting and home composting will be promoted by, for example, upgrading the structure of municipal waste charges and making them more encouraging.** At the same time, sufficient advice must be provided so that any harmful impacts resulting from composting can be prevented.

*Responsible parties: municipalities, in cooperation with the Association of Finnish Local and Regional Authorities, companies, associations and organisations*

**2.3.4 Other recommended measures aimed at increasing recycling of municipal waste:**

- The chances of imposing recycling obligations on operators handling waste flows should be examined in connection with the revision of the Waste Act. Such operators could include municipalities and waste treatment companies. This might be necessary for ensuring a balance between recycling and energy use of waste.

**Aim 2.4 More efficiency in the reuse of packaging and recycling of packaging waste**

**2.4.1 Finland will act in the EU so that in connection with the next review and objective setting concerning the Packaging Directive, consideration would also be given to package reuse.** The EU should also set targets for the absolute or relative amounts of packaging waste destined for disposal.

*Responsible party: Ministry of the Environment, in cooperation with producer corporations and the Pirkanmaa Regional Environment Centre*

**2.4.2 Other recommended measures aimed at increasing package recycling and reuse:**

- The possibility of putting the recycling of plastic packaging on a more efficient basis should be examined and the decisions on increases in recycling targets should be made on the basis of the study. As part of the study, it should also be assessed which other categories of plastic waste could be recycled more extensively so that, on a material basis, at least the recycling targets required for packaging waste could be achieved.
- The impact of the changes in the excise duty on beverage packages on reuse should be monitored and, if necessary, corrective measures taken.

### 3 Managing hazardous substances from the point of view of waste

#### Aim 3.1 Preventing the harmful impacts resulting from waste

**3.1.1 Research of hazardous substances will be made more efficient from the point of view of waste.** In the implementation of the National Chemicals Programme, sufficient consideration will be given to the research of chemical risks connected with the waste phase of objects and materials. From the health and environmental point of view, the focus will be on such matters as the occurrence of heavy metals and persistent organic pollutants in wastewater sludges, landfilled waste, energy waste, waste incineration emissions and ash, waste recycling plants and recycled materials. Sufficient research inputs will be directed at the above topics and the necessary monitoring of concentrations will also be ensured.

*Responsible parties: Ministry of Social Affairs and Health and the Ministry of the Environment, in cooperation with regional environment centres, Finnish Environment Institute, municipal waste treatment plants, private waste management companies and research institutes*

**3.1.2 The use of certain hazardous chemicals will be reduced and they will be replaced with less hazardous alternatives.** The most important and widely used chemicals that are particularly hazardous when occurring in waste and during waste recovery and other waste management processes will be charted in a joint project involving the authorities and stakeholders. Particular efforts will be made to find replacements to these chemicals.

Operators and consumers will be provided with more information about the alternatives and consumer advisory services and information provision targeting small enterprises will be improved on a sectoral basis. From the waste point of view, the focus will be on hazardous substances in building products, plastic products and finishing materials.

*Responsible party: Ministry of the Environment, in cooperation with the Finnish Environment Institute, Ministry of Employment and the Economy, chemical industry, Confederation of Finnish Industries EK and consumer authorities*

**3.1.3 Other recommended measures aimed at reducing the harmful impacts of waste:**

- Possible waste-related risks resulting from nanotechnology and biotechnology should be assessed and the necessary conclusions on new steering methods drawn.
- When research and monitoring priorities are set, attention should also be paid to chemical risks to employees and consumers during the waste phase.
- When guidelines are drawn up for environmental permit authorities concerning the promotion of the obligation to select the less hazardous alternative referred to in the Chemicals Act in connection with the use of priority chemicals, emphasis should be on the harmful impacts caused by the chemicals during their waste phase.
- The industries producing and using dangerous chemicals should promote the recovery and reduction of hazardous waste by, for example, improving water separation at source, developing recovery systems for used chemicals and by giving priority to reusable chemical packages. The Safety Technology Authority and the National Board of Customs should allocate more resources to the

supervision of the implementation of the Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS directive). Market surveillance should be used for persuading manufacturers and importers to put their in-house control and the monitoring of their subcontractors on a more efficient basis.

### **Aim 3.2 Increasing collection and recovery of hazardous waste**

#### **3.2.1 Consumers and SMEs will be provided with more advice so that the sorting of hazardous waste can be put on a more efficient basis**

*Responsible parties: municipalities and permit authorities, in cooperation with the Finnish Environment Institute, Ekokem, municipal waste treatment plants, private waste management companies, producer corporations and product manufacturers*

#### **3.2.2 Other recommended measures aimed at increasing recovery of hazardous waste:**

- Efforts should be made to ensure that there are enough collection points and that they are within reasonable reach in all parts of the country.
- The possibility of adding new waste categories (such as impregnated wood waste, pharmaceutical waste and waste oil) to the list of products and substances covered by producer responsibility should be examined.
- Efficient collection and safe treatment and recovery of impregnated wood waste should be promoted.

### **Aim 3.3 Ensuring that the recovery of waste-based materials does not cause any harmful impacts**

**3.3.1** When the EU chemicals regulation (REACH) and the new waste directive are implemented, every effort will be made to ensure that **there are no legislative loopholes in the stage between the supervision of waste recovery and product control of recycled materials**, and that, at the same time, there are no overlapping legal provisions that can have a negative impact on waste recovery.

*Responsible parties: Ministry of Social Affairs and Health and Ministry of the Environment, in cooperation with the Finnish Environment Institute and the National Product Control Agency for Welfare and Health*

**3.3.2** **The safety of waste-based fertiliser products will be ensured** by making the in-house control and market surveillance of their production and technical processing more efficient and by applying the plant approval procedure to organic fertiliser products. The control process must help to promote the development of best available technology in the production of fertiliser products.

*Responsible party: Ministry of Agriculture and Forestry, in cooperation with the Ministry of the Environment, Finnish Food Safety Authority Evira, Finnish Environment Institute, regional environment centres, producers and the agricultural advisory service*

### **Aim 3.4 Eco-efficient remediation of sites with contaminated soil**

**3.4.1** **Risk assessment of sites with contaminated soil and the practical application of the assessments** will be developed in accordance with the Government decree on

the assessment of soil contamination and remediation needs and the Ministry of the Environment guidelines on applying the decree. Cooperation between environmental, health, planning and building supervision authorities in the risk assessment of contaminated sites will be made more efficient. Land use planning will be used as a tool for minimising the exposure risk.

*Responsible parties: Ministry of the Environment, regional environment centres and municipalities, in cooperation with the Finnish Environment Institute, regional councils, Ministry of Social Affairs and Health and the Finnish Association of Local and Regional Authorities*

**3.4.2 National remediation and processing requirements will be harmonised, particularly when concerning the disposal of contaminated earth at landfills for conventional waste and the use of contaminated earth in earthworks.** The harmonisation will be achieved through contacts within the network of authorities. Applying the landfill compliance provisions to contaminated earth will ensure that no earth that would be hazardous to health and the environment will be landfilled. Guidelines for best available technology for contaminated earth will be developed and their implementation promoted, while at the same time the material flows of contaminated earth will be monitored. Attention will also be paid to the international obligations concerning persistent organic pollutants. Under these obligations, earth contaminated with these pollutants must, in most cases, be made harmless by incineration.

*Responsible party: Ministry of the Environment, in cooperation with regional environment centres, municipalities, Finnish Environment Institute and sectoral organisations*

**3.4.3 Government funding for remediation work will be increased.** Focus will be on sites with risks for water supply and human health. At the same time, preparations will also be made concerning the costs resulting from the implementation of the planned soil directive. The funds will be used for remediating sites each year that are important from the point of view of health or environmental protection and in which the party responsible for the contamination or the possessor of the site cannot be made accountable for the contamination or where it would be unreasonable for the responsible party to be held accountable.

*Responsible parties: Ministry of the Environment and Ministry of Finance, in cooperation with regional environment centres and municipalities*

**3.4.4 Other recommended measures aimed at putting the remediation of contaminated sites on a more eco-efficient basis:**

- It should be examined whether surveys of contaminated sites and the remediation of sites contaminated with substances other than oil and financed by central or local government could be financed using a system modelled on oil waste charges in which charges connected with the use of certain chemicals could be imposed.
- The soil data system of the environmental administration, which contains information about sites that may be contaminated, that are known to be contaminated, that have been cleaned and that are known to be non-contaminated should be maintained and further developed. Efforts should also be made to ensure that the system is actively used by those responsible for municipal land use planning and building supervision.

- Training on the application of the Government decree on the assessment of soil contamination and remediation needs should be provided and risk assessment services developed as a joint effort involving environmental, health and chemical authorities. The media and the public should be made more aware of the issues connected with soil contamination by producing easy-to-understand information material about the topic.

## 4 Reducing the harmful climatic impacts of waste management

### Aim 4.1 Restricting landfilling of biodegradable material

**4.1.1 The legislative instruments used in other countries** for restricting the disposal of biodegradable waste at landfills (for example, a ban on placing biodegradable and combustible waste at landfills) will be examined. At the same time, urgent changes to the Government decision on landfills will be prepared so that the restrictions concerning the disposal of biodegradable waste at landfills can be put on a concrete basis, which would make the practical application of the restriction more efficient. Guidelines will be drawn up on how to determine the proportion of biodegradable waste of the total amount of landfilled waste.

*Responsible party: Ministry of the Environment*

### Aim 4.2 More biogas recovery and waste-based production

**4.2.1 Recovery and use of landfill gas will be made more efficient.** Provisions on the recovery and treatment of landfill gas are contained in the permit conditions of individual landfills, which are based on the Government decision on landfills. Exceptions can be granted if the applicant can, on the basis of an overall environmental impact assessment, show that no substantial amounts of gas are generated. Small landfills can have oxidizing caps instead of gas-recovery arrangements.

*Responsible parties: regional environment centres, in cooperation with municipalities and parties managing landfills*

**4.2.2 Production and use of biogas in plants will be promoted.** Support will be given to the use of municipal and industrial waste and sludge suited for the production of biogas in biogas plants meeting environmental requirements. Agricultural investment and development subsidies will be directed at the construction of biogas plants at farms and the tax-free status of the energy they produce for their owners will be secured. The chances of introducing a feed-in tariff for biogas plants of less than 20MW (field biomass, offal, different types of cattle manure, municipal waste) will be examined. The environmental impacts caused by the plants will be prevented through legislation (See Aim 5.1).

*Responsible parties: Ministry of Agriculture and Forestry, Ministry of Employment and the Economy and Ministry of the Environment, in cooperation with Employment and Economic Development Centres, agricultural entrepreneurs, Motiva, municipal waste treatment plants and private waste management companies*



#### 4.2.3 Other recommended measures aimed at promoting the recovery and production of biogas:

- Government funds allocated to waste management should, within budgetary limits, be used to finance the costs of gas-recovery structures at old landfills that have been closed in accordance with the provisions in effect at the time.
- Authorities responsible for waste management and waste treatment plants should also promote the directing of biowaste and sludges suitable for biogas production in built-up and rural areas to the biogas plants referred to above.
- Economic and administrative steering instruments should be introduced as part of the national energy and climate strategy to promote the production and use of biogas and other waste-based transport fuels.
- Support should be given to research and development connected with the use of biogas, productivisation and agricultural applications of digestion, and the prevention of environmental impacts of the plants.

#### Aim 4.3 Increasing use of non-recyclable waste as fuel

**4.3.1 The required waste incineration capacity will be assessed in connection with the drawing up of regional waste plans**, while at the same the parties will try to influence those in charge of municipal waste treatment plants and other operators in the sector so that there will be a sufficient amount of balanced capacity for waste energy-use, taking into account waste requiring special treatment.

During the environmental impact assessment procedure of waste incineration plants, co-incineration plants and waste fuel treatment plants, the liaison authority will pay special attention to the fact that the plant measurement options are adequately based on studies on the regional supply of waste suitable for incineration and the energy-efficiency of the project.

*Responsible authorities: regional environment centres, in cooperation with regional councils, energy producers, municipal waste treatment plants and private waste management companies*

**4.3.2 Chances of speeding up and simplifying the permit and appeal processes in connection with waste treatment will be examined**

*Responsible party: Ministry of the Environment, in cooperation with the Finnish Environment Institute, regional environment centres and environmental permit authorities*

**4.3.3 Sufficient energy-efficiency of the combustion process will be ensured during the consideration of the environmental permit**, taking into account the emission limits contained in the national BAT document for waste incineration. Permit authorities will oblige the producers of recycled fuel and the operators of mass fuel plants to report to the supervisory authority on the proportion of plastic and other fossil-based fractions in the fuel. The impact of the recycled fuel on emissions trading rights can be checked on the basis of the information.

*Responsible parties: permit authorities, in cooperation with regional environment centres, permit applicants, planners and the Finnish Environment Institute*

#### 4.3.4 Other recommended measures aimed at increasing the burning of non-recyclable waste:

- A cooperation group, with representatives of waste and energy operators and authorities as members, should be set up. The task of the group would be to clarify and develop matters connected with the energy use of waste and the sufficiency and usability of waste fuels.
- The use of waste materials in the production of ethanol intended for fuel should be encouraged.
- The use of energy-waste fractions not suitable for recycling, primarily to be used in co-incineration plants, should be promoted, provided that such capacity is available in the area.
- The Government decree on waste incineration should be amended so that the quality requirements for wood outside its scope of application can be clarified. This would mean less stringent emission-monitoring requirements in plants that only use wood waste as fuel.
- Finland should promote the approval of harmonised quality criteria for waste-based fuels in the EU and as part of CEN standards.
- Biodegradable waste that is not suited for industrial and construction-related recycling should be channelled to energy generation, using environmental permit conditions, reporting requirements and waste management regulations as tools.

## 5 Reducing the harmful health and environmental impacts of waste management

### Aim 5.1 Best available technology for waste treatment plants

**5.1.1 Revision and harmonisation of the environmental permit conditions for composting, biogas, crushing and incineration plants of biodegradable waste through contacts within the network of authorities will continue.** The permit conditions concerning the emission limits of plants treating biodegradable waste and prevention and restriction of emissions must be based on best available technology. The permit conditions will be harmonised with the terms and conditions of Evira's plant approvals in cases where such approval is required. The exposure of the employees and surrounding settlements to the harmful impacts of the plants will be reduced by examining the microbiological risks of the waste treatment and by putting the cooperation between the environmental, health protection and occupational safety authorities in the supervision and training of the operators on a more efficient basis.

*Responsible parties: permit authorities*, in cooperation with occupational safety and health protection authorities, the National Product Control Agency for Welfare and Health, Finnish Environment Institute and the Finnish Food Safety Authority Evira

**5.1.2 The revision of the Waste Act, the implementation of EU's mining waste directive, the revision of the Mining Act and the development of dam safety supervision will be coordinated** so that the high environmental protection standards of the existing and future mining waste areas and mineral enrichment operations can be maintained.

*Responsible party: Ministry of Employment and the Economy*, in cooperation with the Ministry of the Environment, Ministry of Agriculture and Forestry, Ministry of Social

Affairs and Health, permit authorities, Geological Survey of Finland and sectoral organisations

### **Aim 5.2 Harmonising the standards of waste management of special waste streams**

**5.2.1 Consideration will be given to the regional needs concerning the appropriate treatment of waste generated by animal by-products and special waste generated in the health care sector** in regional waste plans, if necessary in waste treatment plants' strategies and when permits for waste incineration plants and other suitable treatment plants are considered. Operations generating special waste must, in accordance with their permit conditions, present a plan on how they intend to organise the treatment of such waste.

*Responsible parties: Ministry of the Environment, Ministry of Agriculture and Forestry, Ministry of Social Affairs and Health and regional environment centres, in cooperation with permit authorities, Finnish Food Safety Authority Evira, National Product Control Agency for Welfare and Health, municipal waste treatment plants and private waste management companies*

**5.2.2 Guidelines will be drawn up on the treatment of fly and bottom ash generated during waste incineration.** The guidelines will ensure the safety of the treatment and any use of such waste and put the permit conditions on a unified basis.

*Responsible party: Ministry of the Environment, in cooperation with the Finnish Environment Institute, waste treatment plants and research units*

**5.2.3 Steps will be taken to put the planning of the management of waste generated during major accidents and other emergencies on a more efficient basis.** Regional contingency plans will be upgraded and updated and the information on the necessary intermediary storage areas, equipment and procedures will be included in them. Waste generated during exceptional situations may include waste or contaminated materials generated during large oil or chemical accidents, nuclear fallouts or outbreaks of animal or plant diseases that may not be treatable in existing treatment plants or within the framework of existing permit conditions. The need for provisions concerning exceptional situations will be taken into account in connection with the revision of the Waste Act.

*Responsible parties: Ministry of the Interior and Ministry of the Environment, in cooperation with the Ministry of Social Affairs and Health, Ministry of Agriculture and Forestry, regional rescue services, regional environment centres, municipalities, State Provincial Offices, Radiation and Nuclear Safety Authority and the Finnish Food Safety Authority Evira*

**5.2.4 Other recommended measures aimed at improving the quality of special waste management:**

- Finland should be actively involved in the preparation of the reference documents for best available technology for plants treating biodegradable waste (BREF) in the EU. National BAT reports should at least be prepared on composting and plants producing REF fuel.
- The municipal waste regulations and internal guidelines of health care units concerning health care waste should be revised and harmonised in accor-

dance with national guidelines. The application of the health care waste manual prepared by STTV should be in accordance with the operators' internal guidelines and the guidelines issued by waste authorities.

- Finland should continue its active efforts to improve the reception services of waste and wastewater from ships and food waste from international shipping in the Baltic region by influencing the decisions of such bodies as the International Maritime Organization, the Baltic Marine Environment Protection Commission Helcom and the EU.

### **Aim 5.3 Reducing the harmful environmental, health and well-being impacts of municipal waste**

**5.3.1 Municipal steering in the organisation of the collection of waste sludge originating from households and provision of sufficient treatment capacity will be made more effective.** Municipalities will organise the treatment and recovery of sludge generated in rural areas in wastewater treatment plants, biogas plants or composting plants. Cooperation in the recovery and treatment of sludge will be improved.

*Responsible parties: regional environment centres and municipalities, in cooperation with municipal waste treatment plants, private waste management companies, water treatment plants and the Finnish Association of Local and Regional Authorities*

**5.3.2 Other recommended measures aimed at reducing the harmful impacts of municipal waste:**

Waste management companies and municipalities should draw up action plans for combating littering in cooperation with such partners as schools and non-governmental organisations. Prevention of littering should also be a consideration in the allocation of snow dumps. Manufacturers of consumer packaging should take part in the organisation and funding of anti-littering campaigns.

## **6 Developing and clarifying the organisation of waste management**

### **Aim 6.1 Continuous improvement of municipal waste management**

**6.1.1 The division of responsibilities and costs in municipal waste management** between municipalities, municipal waste treatment plants, private waste management companies, waste generators, property holders and producer corporations will be examined and, if necessary, changed in connection with the overall revision of the Waste Act.

*Responsible parties: Ministry of the Environment, in cooperation with municipalities, municipal waste treatment plants, private waste management companies and producer corporations*

**6.1.2 Adequacy and uniformity of the securities given in connection with the consideration of landfill permits will be revised,** taking into account the latest assessments of the long-term nature of the harmful impacts. The provisions used as a basis

for the securities will be clarified in connection with the overall revision of the Waste Act.

*Responsible parties: permit authorities and the Ministry of the Environment, in cooperation with the Finnish Environment Institute*

**6.1.3 The environmental and cost impacts of the transports carried out as part of waste management** and the chances of minimising the harmful impacts will be examined.

*Responsible party: Ministry of the Environment, in partnership with the Ministry of Transport and Communications, Finnish Environment Institute, waste treatment plants and waste management companies*

### **Aim 6.2 Improving the planning of and cooperation in regional waste management**

**6.2.1 The role of the regional environmental centres in the coordination of the planning and development of regional waste management and material efficiency will be strengthened**

*Responsible party: Ministry of the Environment, in cooperation with regional environment centres and the Finnish Environment Institute*

**6.2.2 In regional planning, adequate areas must be reserved for waste management plants** and services in accordance with the targets laid down in national and regional waste plans. A great deal of attention will be given to the regional waste management needs when reconciling different land use interests. For example, the energy use of waste must be in agreement with the area reservations for energy service. In regional programmes, consideration will be given to regionally important waste management development targets and projects, if necessary as supra-regional cooperation. When national land use targets are reviewed, consideration must be given to waste management strategies and supra-regional land requirements.

*Responsible parties: regional councils and the Ministry of the Environment, in cooperation with municipalities and regional environment centres*

**6.2.3 Other recommended measures aimed at improving waste management planning:**

- Municipalities and waste treatment plants set up by municipalities and joint municipal boards should be encouraged to draw up waste strategies and update them at regular intervals. The preparation of the strategies and the assessment of their impacts should be coordinated with regional waste plans. Sufficient areas should be reserved for waste-management purposes in municipal planning.
- Municipalities should also promote waste management in connection with boating and tourism, for example, by cooperating with 'Keep the Archipelago Tidy', 'Keep Lapland Tidy' and other similar organisations.

### **Aim 6.3 Improving the incentives and cost-effectiveness of the producer responsibility system**

**6.3.1 The need for improvements in the producer responsibility system will be assessed.** A report will be compiled on the experiences, problems, costs and the cost-efficiency of the systems and the experiences on different steering methods applied in other EU countries will be compared. Based on the report, changes may be incorporated in the producer responsibility provisions of the Waste Act. The system should encourage producers to reduce the amount of waste, reuse it and make it more recyclable. The introduction of a deposit or a return fee should be considered as a means of increasing the recovery rates. The advisory obligations of the producer corporations will also be examined.

*Responsible party: Ministry of the Environment, in cooperation with producer corporations, the Pirkanmaa Regional Environment Centre and stakeholders*

**6.3.2 Other recommended measures aimed at improving producer responsibility systems:**

- The authorities responsible for the supervision and steering of the producer responsibility systems should be allocated additional resources.
- Producer corporations should also be made responsible for collecting information about material efficiency from their members and publishing it. This would make it easier to disseminate information about the material efficiency of products and serve as a basis for an incentive-oriented division of costs.

## **7 Developing waste-related expertise**

### **Aim 7.1 Making the business of waste management, recycling and material efficiency stronger and more international**

**7.1.1 Public and private research and development resources will be directed at material and energy efficiency.** The chances of launching a technology programme on material and energy efficiency will be examined under the coordination of TEKES. Attention will be paid to process-technology research and the research, development and testing of eco-efficient products.

*Responsible party: TEKES, in cooperation with the Ministry of Employment and the Economy, Ministry of the Environment, SITRA, Academy of Finland, research institutes and companies*

**7.1.2 Other recommended measures aimed at improving waste-related business:**

- Financing and private equity investment instruments should be developed for building and exporting waste-sector reference plants.
- Finland should participate in the development and application of the testing system for European environmental technology in Finland.
- Additional funding should be provided for the research and productivisation of waste management and waste recycling. Focus areas should include the productivisation of the large waste flows of industry and mineral extraction that now end up at landfills, reuse and recycling of chemicals, energy use of industrial sludge and the production and gas incineration of waste-based fuels.

- Transfer of waste management and eco-efficiency expertise and local expertise in these fields should play a more prominent role in Finland's development assistance and in environmental cooperation with partnership countries outside the EU.
- Versatility of treatment and recovery technologies and the setting up of pilot plants for new technologies should be promoted as part of the waste management investments.

**Aim 7.2 Improving the production and quality of the monitoring information covering waste management and material efficiency**

**7.2.1 The information provided as part of VAHTI, the compliance monitoring data system of Finland's environmental administration, will be made more reliable, user-friendly and comprehensive and more accessible to those outside the administration.** Accounting covering the use of waste and natural resources will be improved and practical indicators measuring material efficiency in production and consumption and explaining trends in waste volumes drawn up. Work will continue on the development of waste classification and the harmonisation of its interpretation in the EU and internationally. The need to clarify the requirements laid down in the Waste Act concerning the reporting obligations of different operators will be examined in connection with the revision of the Waste Act.

*Responsible party: Ministry of the Environment, in cooperation with the Finnish Environment Institute, Statistics Finland, Thule Institute, regional environment centres and Motiva's material efficiency unit*

**7.2.2 The monitoring, impact assessment and regular reporting of the implementation of the objectives and the most important steering instruments of the National Waste Plan will be organised**

*Responsible party: Ministry of the Environment, in cooperation with the Finnish Environment Institute, Statistics Finland, regional environment centres and other stakeholders*

**7.2.3 Other recommended measures aimed at improving the quality of the monitoring information:**

- Training and education supporting waste management, material efficiency, ecological product development and sustainable use of natural resources should be expanded using the mainstreaming principle, particularly in study programmes covering technology, natural resources and economics and in supplementary training in different fields. Research training for the sector should be developed as a cooperative effort between universities.
- The information base of the sustainable use of natural resources and the assessment of the impacts of the prevention of waste generation should be improved. A database that can be used in the calculation of the CO<sub>2</sub> emissions and waste volumes generated during materials' and products' life cycles should be created. The environmental impacts of waste collection and transport should be examined and the information should be used in the optimisation of transports.
- Vocational waste management skills should be improved by providing supplementary training, by developing competence-based qualifications and



- by improving the environmental management systems of the companies in the sector.
- Reporting of waste companies should be harmonised.

## 8 Ensuring safe and well-managed shipments of waste

### Aim 8.1 Ensuring safe and properly supervised transfrontier waste shipments

**8.1.1 Cooperation between the authorities in the border control of waste shipments will continue and improve.** Random checks of green waste shipments will also be increased so that the misuse of such shipments can be prevented (notification obligation does not apply to green waste). Supervision of domestic waste shipments will be increased.

*Responsible party: Ministry of the Environment*, in cooperation with the Finnish Environment Institute, Customs, the ports, the Police, regional environment centres and the Finnish Food Safety Authority Evira

**8.1.2 International efforts to harmonise waste classification and the interpretation of the waste shipment regulation will continue.** The issues will be discussed in the OECD, in the meetings of the Secretariat of the Basel Convention, in official gatherings of the EU and as part of such joint projects as IMPEL-TFS (implementation of EU legislation in transfrontier shipments of waste).

*Responsible party: Ministry of the Environment*, in cooperation with the Ministry for Foreign Affairs, Finnish Environment Institute, Statistics Finland and sectoral organisations

**8.1.3 Other recommended measures aimed at making the control of transfrontier waste shipments more effective:**

- If necessary, Finland should conclude agreements with Sweden and Norway on border cooperation covering the treatment of municipal waste.
- Finnish expertise should be offered to the Baltic States and partnership countries of Finland's development cooperation in matters concerning waste monitoring and the management of hazardous waste.

## Monitoring and indicators

The Ministry of the Environment and the Finnish Environment Institute will draw up a monitoring programme for the assessment of the implementation and impacts of the plan. The programme will list the indicators to be monitored in connection with the most important steering instruments. Most of the indicators will be based on existing information systems and statistics. An interim report on the implementation of the Waste Plan will be prepared in 2010 and 2013.



The monitoring will mostly be on the basis of the waste-sector statistics compiled by Statistics Finland. If necessary, separate surveys will be carried out in connection with the monitoring. The implementation of the Plan will also be monitored as part of the monitoring reports drawn up in accordance with the environmental and quality systems maintained by the individual sectors.

## Background

Under section 40 of the Waste Act (1072/1993), the Ministry of the Environment must draw up a national waste plan in order to carry out and develop the tasks provided for and regulated in or under the Act. The plan must present the data on waste and the current state of waste management, the development targets set and the measures necessary to achieve them. Under section 3, subsection 13 of the Government Rules of Procedure (262/2003), statutory national plans must be approved by the government plenary session.

Under article 7 of the Directive of the European Parliament and of the Council on waste (2006/12/EC), competent authorities of the Member States must draw up one or more waste management plans. More detailed provisions on the content of the plan are given in the article. Under article 6 of the Council Directive on hazardous waste (91/689/EEC) and article 14 of the European Parliament and Council Directive on packaging and packaging waste (94/62/EC), the plans for managing this waste must be drawn up separately or as part of the waste management plan required under the Waste Directive.

Under the proposed European Parliament and Council Directive on waste, Member States must draw up waste prevention programmes separately or as part of the waste management plan required under the Directive.

The above-mentioned obligations concerning the drawing up of plans contained in the Finnish and EU waste legislation have been incorporated in the National Waste Plan for 2016.

The National Waste Plan is a Government-approved strategic plan on the principles of waste management and the waste prevention and the national waste-sector objectives for 2016. In addition to objectives and targets, the plan also lays down the measures required for achieving them and the parties responsible for implementing them. The purpose of the plan is to guide players and decision-makers in different sectors so that the Government-approved objectives concerning the recycling society can be met.

### Current state of waste management

The state of waste management in Finland has improved considerably during the last ten years. This has been primarily due to changes in the EU waste legislation, which sets strict environmental and health requirements for waste management. In fact, the requirements will become even stricter in the future. There have also been substantial changes in the operating environment of waste management.

The number of plants recovering and treating municipal waste has multiplied during the last fifteen years. At the moment, a substantial number of waste incineration plants and other treatment facilities are at the planning stage in Finland.

Cooperation between municipalities in municipal waste management has expanded considerably during the past decade. Most Finnish municipalities have given the task of carrying out waste management to municipal waste management companies jointly owned by municipalities, which in turn purchase their services by subjecting

private service providers to competitive tendering. Private companies are responsible for such matters as waste transport.

Companies offering a broad range of environmental services and plants recovering and treating waste have also been set up in the private sector.

The new requirements concerning landfill structures and the ensuing rise in cost have also had an impact on the development of waste management and have put more pressure on different players to make better use of waste generated as part of their production processes. Technological advances have also made it easier to recover waste and in many cases, the treatment and recovery of waste has become a profitable business. Despite tighter requirements and technological improvements, the use of waste as a substance or for energy generation has not progressed in accordance with the objectives of the revised National Waste Plan for 2005.

The introduction of producer responsibility systems for certain discarded products has also changed the operating environment of waste management. Nowadays, producer responsibility applies to discarded tyres, vehicles, electronic and electrical appliances, recycled paper, and partially also to packaging and packaging waste. A change in the Waste Act under which the waste management of used batteries would be made the responsibility of manufacturers is also under preparation.

In autumn 2007, working groups were appointed to prepare an overall revision of the waste legislation and to consider waste taxation and improvements in it.

### **Generation, recovery and treatment of waste in 2005**

Almost 66 million tonnes of waste was generated in Finland in 2005. The figure does not include the manure used in agriculture and the cutting waste left in the forests. Of the waste generated, some 29 % was recovered as material and 14 % used as energy. The remaining 57 % ended up at landfills or was treated using other methods.

The largest amounts of waste were generated in connection with mineral extraction (21 million tonnes) and construction (22 million tonnes). Of the mining waste, some 47 % was wallrock, 47 % tailings and 6 % waste soil. The largest changes in the amount of waste in the sector have resulted from the changeover from opencast mining to underground mining. Waste soil accounts for almost 95 % of the construction waste. In 2005, about 38 % of all construction waste was recovered. Of the waste generated during housing construction (about 1.7 million tonnes; excluding waste soil) about 33 % was used as materials. At the same time, about 27 % was used as energy, while the remaining 40 % ended up at landfills.

Industrial waste totalled almost 17 million tonnes. The largest industrial waste categories were wood and bark, slag generated in connection with metal processing and manufacturing of metal products, and chemical-industry waste, particularly gypsum. The recovery rate of industrial waste varies greatly between sectors. Pulp and paper industry, food industry and the manufacturing of wood products exceeded the 70 % recovery target laid down in the National Waste Plan for 2005. However, oil and chemical industry and the manufacturing of basic metals fell substantially short of the target.

Almost 2.4 million tonnes of hazardous waste was generated in 2005. Most of that amount originated from the extraction of minerals, metal processing, manufacturing of metal products and construction.

Municipal waste is waste that is generated by households and similar waste generated in connection with industrial, service and other operations.

Households and the service sector are the largest source of municipal waste. In the period 2000–2006, the amounts of municipal waste have varied between 2.4 and 2.6 million tonnes. In 2005, the total was 2.48 million tonnes.

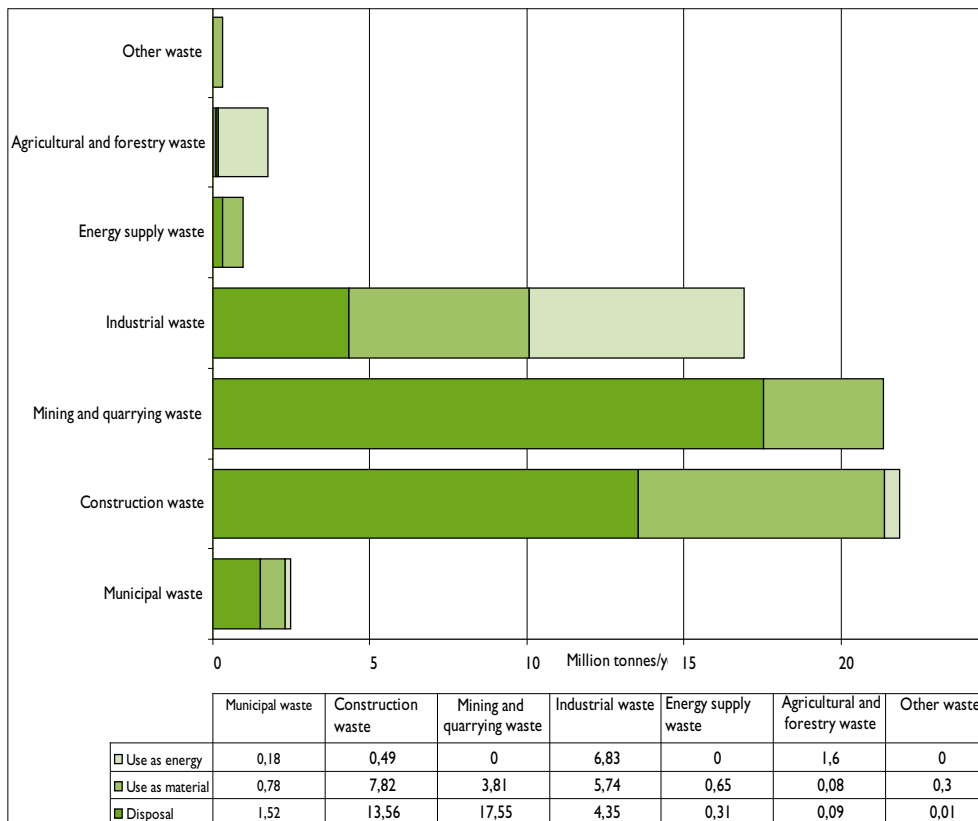


Figure 1. Accumulation of waste and its recovery and treatment in Finland in 2005 (Source: Statistics Finland)

## Waste strategies in the EU

One of the aims of the Decision of the European Parliament and of the Council laying down the sixth Community Environment Action Programme (1600/2002/EC) is to achieve a decoupling of the use of natural resources and generation of waste from the rate of economic growth by introducing more sustainable production and consumption patterns.

The thematic strategy on the prevention and recycling of waste (COM (2005) 666 final) is based on the objectives of the EU waste policy under which the generation of waste should be prevented and its recycling and recovery encouraged so that harmful environmental impacts can be reduced. The aim of the strategy is to make the EU a recycling society. The measures proposed include the incorporation of life cycle thinking in waste policy, drawing up of national programmes for the prevention of waste generation and the promotion of waste recycling and recovery. The proposal for a new EU Waste Directive (COM (2005) 667 final) based on the objectives laid down in the new waste strategy is under consideration in the Council and the European Parliament.

Under the Council Directive on the landfill of waste (1999/31/EC), Member States must prevent methane emissions at landfills by reducing the amount of landfilled biodegradable municipal waste so that in 2016, the amount of biodegradable municipal waste disposed of at landfills will not exceed 35 % of the amount of waste generated in 1994 (2.1 million tonnes).

The EU climate and energy package currently under preparation will probably include binding obligations concerning the reduction of carbon dioxide emissions. They will also require measures aimed at reducing the emissions generated by waste and waste management.

## DOCUMENTATION PAGE

<i>Publisher</i>	Ministry of the Environment Environmental Protection Department			<i>Date</i> April 2009
<i>Author(s)</i>				
<i>Title of publication</i>	<b>Towards a recycling society – The National Waste Plan for 2016</b>			
<i>Publication series and number</i>	The Finnish Environment 14/2009			
<i>Theme of publication</i>	Environmental protection			
<i>Parts of publication/ other project publications</i>				
<i>Abstract</i>	<p>The Government has approved the new national waste plan until 2016. This nationwide strategic plan includes the principles and objectives of waste management and waste prevention. For each goal and objective of the plan, the required policy instruments have been proposed and the responsible body for implementation has been identified.</p> <p>Finland's waste policy is aimed specifically at waste prevention and decreasing the negative effects of waste on human health and the environment.</p> <p>The waste management goals, and the policy instruments that are required for reaching these goals, are described by eight main themes:</p> <ol style="list-style-type: none"> <li>1. Improving the materials efficiency of production and consumption</li> <li>2. Promoting recycling</li> <li>3. Decreasing hazardous chemicals in waste</li> <li>4. Reducing harmful effects on the climate from waste management</li> <li>5. Reducing risks to health and the environment from waste management</li> <li>6. Developing and clarifying the organization of waste management</li> <li>7. Improving waste management know-how</li> <li>8. Managing waste shipments safely</li> </ol> <p>A main target is to stabilise the volume of municipal solid waste at the level it was at the beginning of 2000 and after that the volume of waste should start to decrease by 2016. Another target is that 50 % of the municipal waste should be recycled, energy will be recovered from 30% and not more than 20 % will be landfilled.</p> <p>Additional targets are:</p> <ul style="list-style-type: none"> <li>• all manure from farming activity should be recovered</li> <li>• 90 % of sludge originating in sparsely populated areas should be treated in sewage treatment plants and 10 % in biogas plants of farms</li> <li>• 70 % of construction and demolition waste should be recovered by material or energy recovery</li> <li>• 5 % of the natural gravel and crushed rocks used in construction or other activities should be replaced with in-dustrial and mining waste</li> <li>• 100% of the municipal sewage sludge should be recovered</li> </ul> <p>The plan suggests that industrial sectors should negotiate sector-specific agreements for promoting material efficiency and, in these agreements, set targets for waste prevention and recycling.</p> <p>The national waste plan includes a separate national waste prevention programme.</p>			
<i>Keywords</i>	wastes, waste management, plans, strategy, sustainable production, consumption, ecoefficiency, recycling, environmental policy			
<i>Financier/ commissioner</i>	Ministry of the Environment			
		ISBN 978-952-11-3440-1 (PDF)		ISSN 1796-1637 (online)
	<i>No. of pages</i> 36	<i>Language</i> English	<i>Restrictions</i> For public use	<i>Price (incl. tax 8 %)</i>
<i>For sale at/ distributor</i>	www.environment.fi > Publications > The Finnish Environment 2009			
<i>Financier of publication</i>	Ministry of the Environment			
<i>Printing place and year</i>	Helsinki 2009			

## KUVAILULEHTI

Julkaisija	Ympäristöministeriö Ympäristönsuojeluosasto			Julkaisu-aika Huhtikuu 2009
Tekijä(t)				
Julkaisun nimi	<b>Towards a recycling society – The National Waste Plan for 2016</b> (Kohti kierrätysyhteiskuntaa – Valtakunnallinen jätesuunnitelma vuoteen 2016)			
Julkaisusarjan nimi ja numero	Suomen ympäristö 14/20089			
Julkaisun teema	Ympäristönsuojelu			
Julkaisun osat/ muut saman projektin tuottamat julkaisut				
Tiivistelmä	<p>Valtakunnallinen jätesuunnitelma vuoteen 2016 on valtioneuvoston hyväksymä strateginen suunnitelma jätehuollon ja jätteiden syntyä ehkäisyn periaatteista sekä jätealan valtakunnallisista päämääristä. Päämäärien ja tavoitteiden lisäksi esitetään niiden saavuttamiseksi tarvittavat toimet ja niiden toteuttamisesta vastuussa olevat tahot. Suunnitelman tarkoituksena on ohjata toimijoita ja päättäjiä siihen suuntaan, mihin eri toimialoilla on valtioneuvoston käsityksen mukaan pyrittävä vähäjätteen kierrätysyhteiskunnan saavuttamiseksi.</p> <p>Jätepolitiikan keskeisenä tavoitteena on jätteen syntyä ehkäisy ja jätteistä aiheutuvien haitallisten terveys- ja ympäristövaikutusten vähentäminen.</p> <p>Valtakunnallisen jätesuunnitelman tavoitteet sekä tavoitteiden saavuttamiseksi keskeiset ohjaukeinit on ryhmitelty kahdeksan päämäärän alle: 1. Tuotannon ja kulutuksen materiaalihokkuuden parantaminen, 2. Kierrätyksen tehostaminen, 3. Vaarallisten aineiden hallinta jätenäkökulmasta, 4. Jätehuollon haitallisten ilmastovaikutusten vähentäminen, 5. Jätehuollon terveys- ja ympäristöhaittojen vähentäminen, 6. Jätehuollon organisoinnin kehittäminen ja selkeyttäminen, 7. Jäteosaamisen kehittäminen sekä 8. Jätteiden kansainväliset siirrot tapahtuvat hallitusti ja turvallisesti.</p> <p>Päämäärät koskevat useimpia jätehuollon sektoreita kuten yhdyskuntajätehuoltoa, teollisuuden ja kaivannaistuotannon, rakentamisen, maatalouden, kaupan ja palveluiden jätehuoltoa. Materiaalihokkuuden tavoitteet koskevat vielä laajemminkin yhteiskunnan eri toimintoja.</p> <p>Tavoitteena on yhdyskuntajätteen määrän vakiinnuttaminen 2000-luvun alun tasolle ja sen jälkeen jätemäärän kääntäminen laskuun vuoteen 2016 mennessä. Tavoitteena on lisäksi, että yhdyskuntajätteestä kierrätetään materiaalina 50 % ja hyödynnetään energiana 30 %. Loppusijoitettavaksi kaatopaikoille päätyisi enintään 20 % jätteistä.</p> <p>Tavoitteena on lisäksi, että:</p> <ul style="list-style-type: none"> <li>• kaikki maaseudun elinkeinotoiminnassa syntyvä lanta hyödynnetään</li> <li>• 90 % haja-asutusalueiden lietteistä ohjautuu käsittelyyn jäteveden puhdistuslaitoksille ja 10 % maatilojen biokaasulaitoksiin</li> <li>• rakentamisen jätteistä hyödynnetään 70 % materiaalina ja energiana</li> <li>• maanrakentamisessa korvataan luonnonSORAA ja kalliomurskettä teollisuuden ja kaivannaistuotannon jätteillä 5 % (n. 3–4 miljoonaa tonnia)</li> <li>• yhdyskuntajätevesilietteistä hyödynnetään 100 % maanparannuskäytössä tai energiana.</li> </ul> <p>Suunnitelmassa esitetään lisäksi, että teollisuuden toimialat asettaisivat toimialakohtaisissa materiaalihokkuussopimuksissa tavoitteita ominaisjättemääriensä vähentämiseksi ja kierrätyksen lisäämiseksi.</p> <p>Valtakunnalliseen jätesuunnitelmaan sisältyy Suomen kansallinen jätteen syntyä ehkäisy-suunnitelma.</p>			
Asiasanat	jäte, jätehuolto, kierrätys, suunnitelmat, strategia, ympäristöpolitiikka, ekotehokkuus, kestävä tuotanto, kulutus			
Rahoittaja/ toimeksiantaja	Ympäristöministeriö			
		ISBN 978-952-11-3440-1 (PDF)		ISSN 1796-1637 (verkkoy.)
	Sivuja 36	Kieli englanti	Luottamuksellisuus julkinen	Hinta (sis. alv 8 %)
Julkaisun myynti/ jakaja	www.environment.fi > Publications > The Finnish Environment 2009			
Julkaisun kustantaja	Ympäristöministeriö			
Painopaikka ja -aika	Helsinki 2009			

## PRESENTATIONSBLAD

Utgivare	Miljöministeriet Miljövårdsavdelningen	Datum April 2009
Författare		
Publikationens titel	<b>Towards a recycling society – The National Waste Plan for 2016</b> (Mot ett återvinningssamhälle – Riksomfattande avfallsplan fram till år 2016)	
Publikationsserie och nummer	Miljön i Finland 14/2009	
Publikationens tema	Miljövård	
Publikationens delar/ andra publikationer inom samma projekt		
Sammandrag	<p>Den riksomfattande avfallsplanen är en av statsrådet godkänd strategisk plan om principerna för avfallshanteringen och förebyggandet av uppkomsten av avfall samt om de riksomfattande målen för avfallsbranschen fram till år 2016. Förutom målen presenteras de åtgärder som behövs för att målen ska uppnås och de instanser som ansvarar för dessa. Syftet med planen är att styra aktörer och beslutsfattare i den riktning i vilken olika branscher enligt statsrådets uppfattning ska sträva för att ett avfallssnålt återvinningssamhälle ska kunna uppnås. Det centrala målet för avfallspolitiken är att minska de skadliga hälso- och miljökonsekvenserna av avfall. Målen för den riksomfattande avfallsplanen och de styrmedel som är nödvändiga för att nå dessa mål har grupperats i åtta kategorier: 1. Förbättring av materialeffektiviteten inom produktionen och konsumtionen, 2. Effektivisering av återvinningen, 3. Hanteringen av farliga ämnen ur avfallssynvinkel, 4. Minskning av avfallshanterings skadliga konsekvenser på klimatet, 5. Minskning av hälso- och miljöolägenheter i anslutning till avfallshanteringen, 6. Utveckling och klarläggning av organiseringen av avfallshanteringen, 7. Utvecklingen av avfallskompetensen samt 8. Kontrollerade och säkra internationella avfallstransporter.</p> <p>Målen handlar om flera sektorer inom avfallshanteringen, t.ex. hantering av kommunalt avfall och avfall från industri och gruvverksamhet, byggande, jordbruk, handel och service. Målen gällande materialeffektiviteten omfattar olika samhälleliga funktioner i vidare bemärkelse.</p> <p>Målet är att först stabilisera mängden kommunalt avfall till den nivå som rådde i början av 2000-talet och därefter få mängden att börja sjunka senast år 2016. Ett annat mål är att 50 % av det kommunala avfallet ska återvinnas som material och 30 % utnyttjas för energi år 2016. Högst 20 % ska deponeras på avstjälningsplatser.</p> <p>Målet är därtill att:</p> <ul style="list-style-type: none"> <li>• all gödsel som uppkommer i näringsverksamheten på landsbygden ska kunna utnyttjas</li> <li>• 90 % av slammet från glesbebyggda områden ska styras till behandling vid reningsverk för avloppsvatten och 10 procent till jordbruksföretagarnas biogasanläggningar</li> <li>• 70 % av byggnadsavfallet ska återvinnas som material och utnyttjas för energi</li> <li>• 5 % (ca 3–4 miljoner ton) av det naturgrus och den bergskross som behövs vid anläggningsarbeten ska ersättas med avfall från industri och gruvverksamhet</li> <li>• 100 % av det kommunala slammet ska återvinnas antingen för markförbättringsmaterial eller för energi</li> </ul> <p>I planen föreslås att industribranscherna i branschvisa avtal om materialeffektiviteten ska ställa upp mål för att minska de specifika avfallsmängderna och öka återvinningen.</p> <p>Den riksomfattande avfallsplanen inkluderar en nationell plan för förebyggande av avfall.</p>	
Nyckelord	avfall, avfallshantering, återvinning, planer, strategi, miljöpolitik, hållbar produktion och konsumtion, materialeffektivitet, förebyggande av uppkomsten av avfall	
Finansiär/ uppdragsgivare	Miljöministeriet	
	ISBN 978-952-11-3440-1 (PDF)	ISSN 1796-1637 (online)
	Sidantal 36	Språk Engelska
		Offentlighet Offentlig
		Pris (inneh. moms 8 %)
Beställningar/ distribution	www.environment.fi > Publications > The Finnish Environment 2009	
Förläggare	Miljöministeriet	
Tryckeri/tryckningsort och -år	Helsingfors 2009	



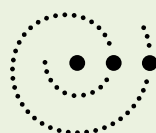
Towards a recycling society – National Waste Plan for 2016 is a Government-approved strategy covering the principles, aims and objectives of waste management and prevention of waste generation for 2016, and the measures required for achieving the aims.

The main aim of the waste policy is to prevent the generation of waste and to reduce its harmful health and environmental impacts.

The Plan incorporates the Finland's national waste prevention programme and seven other overlapping objectives for waste management sectors. The aims of the Waste Plan and the main steering methods for achieving them are grouped under the objectives.

The aim of the Plan is to achieve a decline in the amount of municipal waste by the year 2016. Furthermore, the aim is to achieve a situation in which 50% of all municipal waste is recycled as material and 30% used as energy. A maximum of 20% of the waste would end up at landfills.

The Plan also proposes that industrial sectors would in their sector-specific material-efficiency agreements set targets for reducing specific waste volumes and increasing recycling rates.



YMPÄRISTÖMINISTERIÖ  
MILJÖMINISTERIET  
MINISTRY OF THE ENVIRONMENT