National Environmental Action Plan of Estonia for 2007-2013

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National Environmental Action Plan of Estonia for

2007-2013

MINISTRY OF THE ENVIRONMENT

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TABLE OF CONTENTS

ENVIRONMENTAL ACTION PLAN IMPLEMENTS THE ENVIRONMENTAL STRATEGY

Estonia is changing. The changes – in economy, the social sphere and also in the environment – have been particularly remarkable in recent years. The Ministry of the Environment initiated the preparation of a long-term environmental strategy to keep up with the changes in the sphere of the environment, to direct these changes to an optimal extent and to link the changes with other spheres.

The thorough Estonian Environmental Strategy 2030 was completed by the end of 2006 and the Riigikogu approved it on 14 February 2007. Along with the Environmental Strategy the National Environmental Action Plan 2007-2013 was also prepared, which serves as the implementation plan of the Strategy. The sphere of the environment comprises several areas that differ from each other materially in terms of contents, scope and specific features. The Environmental Action Plan specifies the measures and activities that contribute to the accomplishment of the goals formulated in the Environmental Strategy and to the interconnection of the goals with sub-areas over the next seven years. Also, the priorities of sustainable public procurements to be organised in Estonia and the activities planned for carrying out the procurements are set out in the Environmental Action Plan.

The Environmental Action Plan was prepared for a term of seven years owing to the EU programming period 2007-2013; the sector-specific action plans prepared with a view to using the structural funds of the EU determine, to a material extent, the goals and priority development trends established in the sphere of the environment as well. In other words – the principal aim of the Environmental Action Plan is to present a consensual list of nationally prioritised lines of action aimed at achieving the primary goals of the environmental policy specified in the national Environmental Strategy, indicating the financing needs.

The structure of the Environmental Action Plan is based on the following sub-areas defined on the basis of the terms of reference of the Environmental Strategy 2030:

1) sustainable use of natural resources and reduction of waste generation;

2) preservation of the diversity of landscapes and biodiversity;

3) climate change mitigation and good quality of ambient air;

4) the environment, human health and quality of life;

5) environmental management.

The Environmental Action Plan was drawn up by working groups formed for the purpose of preparation of the Strategy and consisting of specialists of the relevant areas. The representatives of seven ministries, academic circles (the Nature Protection Commission of the Estonian Academy of Sciences), associations of local governments (the Association of Estonian Cities and the Association of Municipalities of Estonia) and other non-governmental organisations (the Estonian Council of Environmental NGOs, the Network of Estonian Non-profit Organisations, the Estonian Chamber of Agriculture and Commerce, the Estonian Chamber of Commerce and Industry, and the Estonian Society for Nature Conservation) were engaged.

Annika Uudelepp

Secretary General
Ministry of the Environment

1. INTRODUCTION

Pursuant to Regulation No. 302 of the Government of Republic of 13 December 2005 "Types of Strategic Development Plans and Procedure for Drawing up, Modification, Implementation, Evaluation and Reporting Thereof," the National Environmental Action Plan of Estonia 2007-2013 serves as the implementation plan of the Estonian Environmental Strategy 2030. The Action Plan is presented in the form of activity tables that correspond to the measures (lines of activity) specified in the Environmental Strategy.

Just like the Environmental Strategy, the implementation plan thereof builds upon the principles of the National Strategy on Sustainable Development "Sustainable Estonia 21" and accords consideration to several other development plans that have already been drawn up or are being drawn up, e.g. Estonian Fisheries Strategy 2007-2013, Estonian Rural Development Strategy and Development Plan 2007-2013, National Budgetary Strategy 2007-2010, Draft Operational Programme for the Development of the Living Environment, Draft Nature Conservation Development Plan until 2035, Draft Operational Programme for the Development of the Economic Environment, Draft Operational Programme for the Development of Human Resources and the development plans of other related spheres.

The sphere of the environment comprises various sectors that differ from each other materially in terms of contents, scope and specific features. The Environmental Action Plan integrates measures and activities set out in sector-specific development plans into one document and aims at achieving the goals formulated in the Environmental Strategy.

The seven years' perspective of the Environmental Action Plan was chosen in accordance with the EU's programming period 2007-2013 by analogy to the National Strategy of Using Structural Instruments that is being drafted in Estonia, the Sector-Specific Operational Programme for the Development of the Living Environment, the Rural Development Plan and the Operational Programme for Fisheries which determine the objectives of using a substantial part of funds envisaged for the environmental sector, as well as the relevant priority lines of action.

The National Environmental Action Plan of Estonia 2007-2013 serves as the implementation plan of the Estonian Environmental Strategy 2030. As since 1997 the implementation plan of the Environmental Strategy has been called the Environmental Action Plan, the current implementation plan is also called the Environmental Action Plan for the sake of clarity and consistency. The current Environmental Action Plan 2007-2013 is the fourth of its kind and the organisations engaged in the preparation and implementation of the Action Plan have become accustomed to that name. Also, annual overviews of compliance with the Environmental Action Plan have been submitted to the Government of the Republic for a long time. Overviews of compliance with the Environmental Action Plan in 2000-2005 are available on the website of the Ministry of the Environment at http://www.envir.ee/2851. The Ministry of the Environment intends to submit to the Government of the Republic, in the first half-year of 2007, an overview of activities carried out under the Environmental Action Plan in 2006.

The principal aim of the Environmental Action Plan is to present a consensual list of nationally prioritised activities aimed at achieving the primary goals of the environmental policy specified in the national Environmental Strategy, indicating the financing needs and discussing the most optimal use of non-budgetary funding sources (incl. various internal and external resources, the non-profit sector, companies' own funds, etc.). The environmental action plan includes EU-oriented activities, the immediate regulation of which has not been placed in the capacity of the EU, but which spring from national needs (e.g. elimination of disused hazardous sites, environmental impact of the energy sector, etc.).

The Ministry of the Environment managed the preparation and will direct later reporting and assessment of the Environmental Action Plan, but among others the Ministries of Social Affairs, Internal Affairs, Economic Affairs and Communications, Agriculture, and Education and Research are involved.

The process of drafting the Environmental Action Plan: Experts of the relevant spheres and sectors, the Ministries of Social Affairs, Internal Affairs, Agriculture, Economic Affairs and Communications, as well as the departments and agencies of the Ministry of the Environment participated in the preparation of the Environmental Action Plan, being based on the Draft Environmental Strategy 2030 and the previous Environmental Action Plans (1998-2000, 2001-2003 and 2004-2006). A broad-based steering committee was formed for coordination of activities and provisional approval of (interim) results, which was composed of the representatives of various authorities and partners.

The draft was submitted to partners and ministries for coordination.

The **structure of the Environmental Action Plan** is based on working groups formed on the basis of the terms of reference of the Environmental Strategy 2030, which deal with the sub-areas set out below.

- The Working Group for Sustainable Use of Natural Resources and Reduction of Waste Generation deals with the sub-areas of waste, surface and ground water, mineral resources, forests, fish, game, earth and use of land.
- The Working Group for Preservation of the Diversity of Landscapes and Biodiversity deals with issues related to nature conservation.
- The Working Group for Climate Change Mitigation and Quality of Ambient Air deals with energy (production and conservation of energy), protection of the ozone layer and issues relating to transport (mitigation of the hazardous effects of transport).
- The Working Group for the Environment, Health and Quality of Life primarily deals with aspects relating to human health and hazards that mainly originate from the external environment, focusing on the external environment (quality of ambient air, noise, other pollutants), the internal environment (radon levels, environmentally sustainable and safe materials), food (contamination of food due to the external environment), drinking and bathing water (the quality of drinking and bathing water), disused hazardous sites, security and protection of people (prevention of disasters and efficient elimination of the consequences of disasters).
- The Working Group for Environmental Management dealt with the elaboration of methodology, methodological instruction of sector-specific working groups and harmonisation of results, assessment of the rationality of activities and other issues pertaining to the environmental management which have been integrated in the results of sector-specific working groups, and created links between different sectors.

This division of sub-areas corresponds to the Sixth Environmental Action Plan of the European Union (implemented until 2010).

The bases of action were set for the working groups in accordance with the terms of reference of the National Environmental Strategy 2030 and Regulation No. 302 of the Government of Republic of 13 December 2005 "Types of Strategic Development Plans and Procedure for Drawing up, Modification, Implementation, Evaluation and Reporting Thereof." The steering committee of the process approved these bases on 5 May 2006.

Calculation of the management costs and funding sources of establishment of the Environmental Action Plan

The costs of lines of action were estimated on the basis of prices prevailing in 2006. Only new initiatives and costs relating thereto were taken into account in planning the costs. Costs were also budgeted on the basis of existing financial plans for lines of action (incl. the forecast of funding needs of the environmental protection sphere for 2007-2013).

For each line of action the financing source (or sources) was designated, e.g. the state budget, resources allocated to the Ministry of the Environment, Ministry of Internal Affairs, Ministry of Social Affairs, Ministry of Agriculture and the Environmental Investment Centre, EU funds (e.g. Cohesion Fund, European Regional Development Fund, European Agricultural Fund for Rural Development, etc.), resources of companies and local governments and other resources (e.g. Financial Mechanism of the European Economic Area and the Norwegian Financial Mechanism, etc.). Adjustment for future prices is based on the summer 2006 forecast of the Ministry of Finance, the source data received from the Statistical Office and the calculations made by consultants.

According to the summary of the Environmental Action Plan the expected aggregate cost of the Plan will amount to EEK 76,427,246,000 (based on the prices prevailing in 2006).

2. METHODOLOGY OF DRAFTING THE ENVIRONMENTAL ACTION PLAN

2.1. Principles of estimating the cost of the Environmental Action Plan

The cost of the Environmental Action Plan (hereinafter referred to as **EAP**) was estimated for the following areas of activity:

1. The environment, health and quality of life
2. Preservation of the diversity of landscapes and biodiversity
3. Sustainable use of natural resources and reduction of waste generation
4. Climate change mitigation and quality of ambient air
5. Environmental management (management activities supporting all areas of activity)

To calculate the cost of implementing the Environmental Strategy, working groups assessed the activities to be carried out for achieving the goals of the Environmental Strategy in 2007-2013.

2.2. Planning of the costs of lines of action

Before the costs of lines of action were planned, the relevant activities were defined and the costs of individual activities were estimated. The forecast of the costs was based on prices prevailing in 2006. Only new initiatives and costs relating thereto were taken into account in planning the costs. Costs were also budgeted on the basis of existing financial plans for lines of action (incl. the forecast of funding needs of the environmental protection sphere for 2007-2013, etc.). Where an activity involved the formulation of a development plan/action plan/legislation, to be followed by implementation under the new source document, the implementation costs were not taken into account in the forecast of the cost of the action plan. As the EAP is updated every three years, the adjusted costs of implementing a development plan or other source document will be added in the course of updating the EAP.

The lines of action were budgeted on the basis of the following expenditure categories:

- investments – costs of construction, equipment, structures, etc.;
- costs of the so-called soft projects – outsourced services, labour costs (incl. all taxes), with R&D costs set out separately;
- other costs – administrative and lease costs.

All costs were budgeted with VAT.

For each line of action the financing source (or sources) was designated, e.g. the state budget, resources allocated to the Ministry of the Environment, Ministry of Internal Affairs, Ministry of Social Affairs, Ministry of Agriculture and the Environmental Investment Centre, EU funds (e.g. Cohesion Fund, European Regional Development Fund, etc.), resources of companies and local governments and other resources (e.g. Financial Mechanism of the European Economic Area and the Norwegian Financial Mechanism, etc.).

2.3. Coefficients used for adjusting costs

Adjustment for future prices is based on the 2006 summer forecast of the Ministry of Finance, the source data received from the Statistical Office and the calculations made by consultants.

Table 1. Indices and forecast thereof

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Construction Cost Index	7.3%	8.4%	11.1%	8.6%	8.2%	7.6%	7.4%	7.3%	7.3%	7.3%
Average wages	7287	8073	9170	10,261	11,265	12,281	13,337			
Nominal growth of wages	8.4%	10.8%	13.6%	11.9%	9.8%	9.0%	8.6%	8.6%	8.6%	8.6%
Consumer Price Index	3%	4.10%	4.5%	3.9%	4.2%	3.2%	3.1%	3.1%	3.1%	3.1%
Real Growth of GDP	8.1%	10.5%	9.6%	8.3%	7.7%	7.6%	7.4%			

Sources: Summer 2006 forecast of the Ministry of Finance, the Statistical Office, calculations of EAP working groups (Construction Cost Index)

To forecast the Construction Cost Index (CCI), a sub-index – the Industrial Building Cost Index is used. The value for 2006 is equal to the difference between the index's value for the 3rd quarter of 2006 and that for the 3rd quarter of 2005.

Projections of the CCI for 2007-2013 are based on the indicators set out in Tables 2 and 3 below.

Table 2. Year-on-year change in the Industrial Building Cost Index

	Relative share	Q3, 2006	2005	2004	2003	2002	2001
TOTAL	**100.0%**	**11.1%**	**8.4%**	**7.3%**	**4.2%**	**4.0%**	**6.8%**
Labour	27.2%	20.6%	11.0%	10.1%	10.6%	8.6%	8.8%
Building machinery	5.8%	9.9%	9.8%	5.9%	4.3%	4.2%	6.8%
Building materials	67.0%	6.6%	7.0%	6.2%	1.5%	2.1%	5.9%

Source: Statistical Office

Table 3. Forecast of the Industrial Building Cost Index

	Relative share	2007	2008	2009	2010	2011	2012	2013
TOTAL	**100.0%**	**8.6%**	**8.2%**	**7.6%**	**7.4%**	**7.3%**	**7.3%**	**7.3%**
Labour*	27.2%	13.6%	11.9%	9.8%	9.0%	8.6%	8.6%	8.6%
Building machinery*	5.8%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Building materials*	67.0%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%	6.6%

* The increase in the cost of labour has been calculated on the basis of the nominal growth of wages as set out in the summer 2006 forecast of the Ministry of Finance. The increase in the cost of machinery and materials has been calculated on the basis of the average values in 2004-2006.

Table 4. Adjustment coefficients

Increase from 2006	2007	2008	2009	2010	2011	2012	2013
CCI	1.09	1.17	1.26	1.36	1.46	1.56	1.67
WAGES	1.12	1.23	1.34	1.45	1.58	1.72	1.86
IBCI	1.04	1.08	1.12	1.15	1.19	1.22	1.26

The forecast of the Industrial Building Cost Index (IBCI) and of the nominal growth of wages for 2011-2013 is based on the growth rate for the last year included in the summer 2006 forecast of the Ministry of Finance, i.e. the year 2010.

The cost of investments for 2006 has been adjusted with the CCI; the cost of labour and soft projects has been adjusted with the WAGES index and other costs were adjusted with the IBCI.

2.4. Analysis of socioeconomic impact

Assessment of the benefits of implementation of the Environmental Action Plan is not limited to the direct revenues and costs relating to activities and lines of action, but also involves indirect gains and losses that are attributable to the condition of the environment.

The socioeconomic cost-benefit analysis of the Environmental Action Plan aims at assessing the socioeconomic expediency of the activities to be carried out. As no relevant statistics have been gathered in Estonia yet, it is difficult to carry out a socioeconomic analysis. Utilitarian and non-utilitarian values can be distinguished in the socioeconomic analysis. The utilitarian values are characterised by the following:

- the possibility of direct consumption of natural resources;
- as a rule, consumption yields a direct economic gain;
- prices are regulated by market rules;
- benefits are of a local nature;
- as a rule, gains drawn upon consumption can relatively easily be expressed in monetary terms.

Also values that are very difficult to measure in monetary terms are analysed in the course of assessment of the socioeconomic impact of the Environmental Action Plan. Implementation of the plan will entail non-market or non-utilitarian values for nature. The non-utilitarian values are characterised by the following:

- no direct physical consumption of resources is presumed;
- as a rule, consumption will not yield a direct economic gain;
- as a rule, prices are not regulated by market rules;
- benefits are of a global, rather than local nature;
- impact on the quality of life;
- it is difficult to express gains in monetary terms.

Non-utilitarian values created by nature can include the following:[1]

- recreational value – creation of recreational and tourism facilities;
- psychosocial value – creation of opportunities for cognition of existence;
- cultural-historical value – preservation of the historical structure of landscapes;
- educational and scientific value – creation of opportunities for educational and research work;
- aesthetic value – creation of opportunities for perceiving the beauty of landscapes and natural objects.

Working groups assessed the non-utilitarian values of the lines of action. Possible socioeconomic impacts were defined for each line of action, identifying the source of impact (e.g. increase in employment, improvement of competitive ability, decrease of occurrences of diseases, etc.) and determining the significance of impact on a scale of 5-1 as follows:

5 – Strongly positive impact (manifested instantly (0-5 years))
4 – Slightly positive impact (manifested after some time (>5 years))
3 – No impact
2 – Slightly negative impact (manifested after some time (>5 years))
1 – Strongly negative impact (manifested instantly (0-5 years))

A summary of the socioeconomic analysis is enclosed with this document.

[1] Report by Ü. Ehrlich

3. ASSESSMENT OF THE PRIORITY AND RATIONALITY OF ACTIVITIES

In calculating the cost of activities specified in the Environmental Action Plan the implementation of the activities in full was presumed. As the volume of the state budget sets limits to amounts that can be used in individual years, all activities were assessed in terms of their priority and (primarily economic) rationality so as to render it easier to prepare the organisation-based development plans of the next years. Activities with a high priority percent need to be financed in the first instance and in full to ensure good condition of the environment.

The following criteria served as the basis for assessing the priority of activities:

1) Activities without carrying out which several subsequent activities under the EAP cannot be started within an area of activity (e.g. the area of activity relating to waste in the working group for resources) (10%); activities without carrying out which several subsequent activities under the EAP cannot be started in other areas of activity (e.g. activities in the area of activity relating to waste serve as a precondition for carrying out certain activities in the area of activity relating to mineral resources) (20%);
2) Activities whose postponement will materially increase costs to be incurred in the future and/or impair the current situation (e.g. it is less expensive to mow meadows now than to clear brushwood or young forest from the meadows in the future; reconstruction turns out to be more expensive than constructing in accordance with new requirements in the first place) (20%);
3) International obligations assumed for the period of carrying out the EAP (20%) (obligations that have a major impact for Estonia, incl. penalties, or obligations in the case of which the activity of Estonia has a major international impact);
4) Extent and duration of impact (to what extent the implementation of the activity in question improves the current situation and whether the impact is one-time or long-term –, e.g. a new technology applied for removal of ash in power stations (20%);
5) Duration of process (e.g. in the case of designing or nursing forests – failure to start the process now will cause the impact to be felt in even remoter future (10%);
6) Country-wide impact (as opposed to local impact (10%).

For the purposes of the EAP, the assessment of rationality means evaluating the utility of activities. Three aspects of utility were studied – first, utility for the consumer (circle of people operating under the same budget, e.g. a family), secondly, the profitability for entrepreneurship, and thirdly, the capability of fulfilling society's needs for (social) welfare. As regards social welfare the entire society of Estonia was taken into account. As regards consumers and entrepreneurs only the consumers and entrepreneurs directly affected by the activity in question were taken into account. The following criteria were used for assessment of rationality:

1) Utility
   5 – most needed by consumers
   4 – needed by consumers
   3 – no difference for consumers
   2 – restricts the activities of consumers
   1 – remarkably restricts the activities of consumers
2) Profitability
   5 – materially supports entrepreneurship
   4 – supports entrepreneurship
   3 – no difference for entrepreneurship
   2 – restricts entrepreneurship
   1 – remarkably restricts entrepreneurship
3) Welfare
   5 – materially contributes to increasing (social) welfare
   4 – contributes to increasing (social) welfare
   3 – no difference for (social) welfare
   2 – restricts (social) welfare)
   1 – materially restricts (social) welfare)

4. SUMMARY FORECAST OF THE COST OF THE ENVIRONMENTAL ACTION PLAN 2007-2013

Tables 5 and 6 set out a forecast of the cost of the Environmental Action Plan on a year-by-year basis in 2007-2013.

Table 5. Cost of the Environmental Action Plan (based on prices prevailing in 2006)

Prices prevailing in 2006; EEK thousand	2007	2008	2009	2010	2011	2012	2013	TOTAL
Health and quality of life	111,656	855,691	1,265,667	789,935	801,396	801,906	799,806	5,426,057
Landscapes and biological diversity	355,786	405,423	478,255	532,558	481,572	412,967	413,020	3,079,580
Natural resources and waste	2,286,853	2,322,361	4,104,307	4,136,764	3,238,600	1,545,005	1,543,593	19,177,482
Climate change mitigation and quality of ambient air	4,175,775	6,626,930	9,592,700	7,670,600	9,526,250	4,165,600	6,935,400	48,693,255
Management activities supporting all areas of activity	8488	11,235	10,482	6685	4662	4,635	4685	50,872
TOTAL	**6,938,558**	**10,221,640**	**15,451,411**	**13,136,541**	**14,052,480**	**6,930,112**	**9,696,504**	**76,427,246**

Table 6. Cost of the Environmental Action Plan (adjusted with a coefficient)

Adjusted future prices, EEK thousand	2007 (adj.)	2008 (adj.)	2009 (adj.)	2010 (adj.)	2011 (adj.)	2012 (adj.)	2013 (adj.)	TOTAL
Health and quality of life	121,559	1,006,865	1,602,357	1,075,516	1,172,418	1,259,457	1,348,092	7,586,264
Landscapes and biological diversity	394,208	489,888	623,770	746,985	733,491	686,418	742,169	4,416,928
Natural resources and waste	2,509,239	2,770,340	5,253,740	5,698,643	4,817,456	2,529,987	2,730,038	26,309,444
Climate change mitigation and quality of ambient air	4,537,395	7,787,005	12,125,926	10,411,336	13,866,408	6,504,985	11,614,453	66,847,508
Management activities supporting all areas of activity	9398	13,638	13,797	9410	7233	7788	8529	69,793
TOTAL	**7,571,798**	**12,067,735**	**19,619,590**	**17,941,890**	**20,597,006**	**10,988,635**	**16,443,281**	**105,229,936**

Also the sources of financing were determined for carrying out activities within the scope of predetermined lines of action. A summary of the sources of financing is set out in Tables 7 and 8.

Table 7. Sources of financing the implementation of the Environmental Action Plan (all areas of activity)

Prices prevailing in 2006; EEK thousand	2007	2008	2009	2010	2011	2012	2013	TOTAL	Relative share
State budget, Ministry of the Environment	477,459	511,049	546,481	572,783	516,433	470,358	470,624	3,565,188	5%
State budget, other ministries	75,427	165,702	156,737	150,061	152,117	146,244	142,770	989,057	1%
Environmental Investment Centre	412,244	507,406	738,605	600,374	497,060	397,710	385,266	3,538,665	5%
EU resources	1,932,831	2,732,949	4,150,748	3,963,854	3,288,988	2,158,003	2,138,214	20,365,587	27%
Companies	3,640,907	5,788,968	8,986,203	6,941,363	8,641,162	3,390,854	6,205,165	43,594,622	57%
Local governments	337,559	426,347	491,649	479,211	410,159	328,159	326,121	2,799,204	4%
Other financers	63,915	89,875	372,815	430,490	548,220	40,445	30,445	1,576,205	2%
TOTAL	**6,938,558**	**10,221,640**	**15,451,411**	**13,136,541**	**14,052,480**	**6,930,112**	**9,696,504**	**76,427,246**	**100%**

Table 8. Sources of financing the implementation of the Environmental Action Plan (all areas of activity), adjusted with a coefficient

Adjusted future prices, EEK thousand	2007 (adj.)	2008 (adj.)	2009 (adj.)	2010 (adj.)	2011 (adj.)	2012 (adj.)	2013 (adj.)	TOTAL	Relative share
State budget, Ministry of the Environment	528,841	618,184	716,767	810,378	793,059	785,987	850,979	5,104,196	5%
State budget, other ministries	89,632	209,256	215,676	215,325	233,913	243,164	256,831	1,463,797	1%
Environmental Investment Centre	447,722	595,670	939,673	823,983	735,302	634,490	661,891	4,838,731	5%
EU resources	2,118,084	3,240,920	5,292,508	5,437,334	4,858,835	3,453,304	3,684,184	28,085,169	27%
Companies	3,958,597	6,807,576	11,337,824	9,425,690	12,583,957	5,298,969	10,389,824	59,802,439	57%
Local governments	365,896	500,343	621,255	650,610	598,416	514,214	548,610	3,799,345	4%
Other financers	67,884	104,335	469,011	581,895	796,828	62,047	49,897	2,131,897	2%
TOTAL	**7,571,798**	**12,067,735**	**19,619,590**	**17,941,890**	**20,597,006**	**10,988,635**	**16,443,281**	**105,229,936**	**100%**

R&D costs were calculated separately for each line of action. See Tables 9 and 10.

Table 9. Research and development costs

Prices prevailing in 2006; EEK thousand	2007	2008	2009	2010	2011	2012	2013	TOTAL
Health and quality of life	622	3146	1220	1220	1220	1220	1220	9868
Landscapes and biological diversity	23,950	40,100	47,150	39,550	36,650	34,250	33,400	255,050
Natural resources and waste	18,400	19,300	18,150	17,550	17,350	17,350	16,850	124,951
Climate change mitigation and quality of ambient air	11,500	15,500	6500	5000	3500	3500	3500	49,000
Management activities supporting all areas of activity	2530	2850	1370	1150	1050	1050	800	10,800
TOTAL	**59,009**	**82,904**	**76,399**	**66,480**	**61,781**	**59,382**	**57,783**	**449,669**

Table 10. Research and development costs (adjusted with a coefficient)

Adjusted future prices, EEK thousand	2007 (adj.)	2008 (adj.)	2009 (adj.)	2010 (adj.)	2011 (adj.)	2012 (adj.)	2013 (adj.)	TOTAL
Health and quality of life	696	3865	1634	1774	1927	2093	2273	14,261
Landscapes and biological diversity	26,619	48,777	62,315	56,810	57,392	58,318	61,691	371,921
Natural resources and waste	20,589	23,709	24,308	25,525	27,404	29,761	31,389	182,686
Climate change mitigation and quality of ambient air	12,803	18,987	8705	7272	5528	6004	6520	65,819
Management activities supporting all areas of activity	2823	3488	1816	1658	1640	1778	1462	14,664
TOTAL	**63,529**	**98,827**	**98,778**	**93,039**	**93,891**	**97,953**	**103,335**	**649,352**

5. ACTIVITIES TO BE CARRIED OUT UNDER THE ESTONIAN ENVIRONMENTAL ACTION PLAN 2007-2013

Sector-specific development plans propositions concerning the drafting of which have not yet been approved on the appropriate level are indicated in italics.

Note: For activities designated with * no financing plan exists yet; financing will be reviewed in the course of monitoring (i.e. in 3 years).

No.	Line of action in the Environmental Strategy and the name of the activity	Priority	Outcome pursued (indicators)	Connection with other strategic documents, international agreements, directives, etc.	Responsible entities	Duration of implementation (a)	Starting year	Cost of activity in 2007-2013 (adjusted) EEK thousand	Incl. investment (adjusted) EEK thousand
1	**SUSTAINABLE USE OF NATURAL RESOURCES AND REDUCTION OF WASTE GENERATION**							26,309,438	16,933,580
1.1	**LONG-TERM PLANNING OF WASTE MANAGEMENT MEASURES**							9,257,209	8,438,560
1.1.1	Long-term planning of waste management measures							2310	0
1.1.1.1	National waste management plan until 2013	70%	The waste management plan has been drawn up.		MOE, LG	1	2007	2310	0
1.1.2	Development of a monitoring and supervision system to improve control over waste flow and waste management							79,193	0
1.1.2.1	Control over waste flow (reduction of illegal discharge of waste)	60%	Decrease in the pollution of land (reporting by the Inspectorate)	Waste management plans	MOE, LG	Continuous process	2007	27,807	0
1.1.2.2	Improvement of control over waste management by both the Environmental Inspectorate and local governments with supervisory capacity	60%	Improvement of control will contribute to a reduction of offences against the law (a sharp increase in the number of offences detected should be followed by a decrease in offences)	Waste management plans	MOE, LG	Continuous process	2007	36,428	0
1.1.2.3	Evaluation and forecasting of the use of materials and waste flow, as well as links between them, by way of, e.g. analyses of material flow	20%	Helps to preclude wasting of resources and reduces the generation of waste. The activities are difficult to measure – the outcome is expressed in a decrease in the overall generation of waste and in the harmfulness of the waste generated. (Data from waste reports, Register of Products of Concern, Packaging Register, Environmental Inspectorate)	Directive on Waste, waste management plans	MOE, companies	Continuous process	2007	14,959	0
1.1.3	Development and implementation of a system of incentives, benefits and regulations for reduction of waste generation and for development of waste management (incl. for mitigation of environmental impact and risks caused by discharge of waste)							9,084,150	8,438,560
1.1.3.1	Formulation of economic measures to preclude the generation of waste and to ensure recovery of waste (environmental charges, security deposits, excise duties, manufacturer's liability, etc.)	70%	Helps to achieve control over waste flow and contributes to the development of waste management. Helps to preclude wasting of resources and reduces the generation of waste. The activities are difficult to measure – the outcome is expressed in a decrease in the overall generation of waste and in the harmfulness of the waste generated.		MOE, MOEAC, LG	Continuous process	2007	31,572	0
1.1.3.2	To ensure the sorting of waste at the places where it is generated, as well as collection and recycling of primary waste flow	70%	Quantities of primary waste recycled increase.		LG, MOE	7	2007	616,555	492,848
1.1.3.3	Promotion of giving preference to and introduction of optimal technologies that are environmentally sustainable and ensure the efficient use of materials in all sectors (incl. the energy sector)	40%	Helps to reduce the generation of waste and the harmfulness of the waste generated (the result is manifested in the reports of companies)	Directive on Waste, waste management plans, Environmental Strategy	MOE and LG (elaboration of incentives and obligations); companies	Continuous process	2007	6,624,793	6,318,334

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1.1.3.4	Closing (16 July 2009) and arranging (16 July 2013) old, non-conforming landfills of waste	60%	EU requirement to be complied with (6-8 landfills for non-hazardous waste which conform to current requirements)		LG, companies, MOE	7	2007	325,419	307,994
1.1.3.5	Setting up new landfills for waste and bringing old landfills into conformity to requirements for continuing use thereof	80%	Old landfills are closed; new landfills need to be set up for discharging waste		LG, MOE	7	2007	286,113	270,779
1.1.3.6	Removal of abandoned waste and remedying of contaminated soil – a continuing waste management problem	30%	Decrease in the pollution of land (reporting by the Inspectorate)		MOE, LG	Continuous process	2007	50,303	0
1.1.3.7	Promotion of the introduction of optimal technologies in waste management	60%	Helps to preclude wasting of resources and reduces the generation of waste. The activities are difficult to measure – the outcome is expressed in a decrease in the overall generation of waste and in the harmfulness of the waste generated.		MOE, Government of the Republic and LG (elaboration of incentives and obligations); companies	Continuous process		945,441	844,650
1.1.3.8	Development of the recovery of biodegradable waste	80%	Contribution to separate collection of waste. The outcome can be measured on the basis of the number of waste collection sites or the quantity of separately collected waste. In 2010, biodegradable waste accounts for no more than 45% of municipal waste delivered to landfills. (Data from waste management reports, data of the Environmental Inspectorate)	Directive on Waste, waste management plans, action plan concerning biodegradable waste, Environmental Strategy	LG, companies, MOE	7	2007	203,955	203,955
1.1.4	Organising campaigns and provision of information concerning waste management on the national level and the level of local governments to increase society's environmental awareness	60%	People's environmental awareness increases. Campaigns have been carried out; overall generation of waste and the harmfulness of waste generated have decreased. (Data from waste reports, Register of Products of Concern, Packaging Register, Environmental Inspectorate)	Waste management plans, Environmental Strategy	MOE, LG, companies	Continuous process	2007	91,556	0
1.2	**FORMULATION AND IMPLEMENTATION OF OPERATIONAL PROGRAMMES FOR IMPROVEMENT AND PRESERVATION OF THE STATUS OF SURFACE WATER AND GROUNDWATER**							9,214,018	8,317,292
1.2.1	Formulation and implementation of operational programmes for improvement and preservation of the status of surface water (incl. coastal water) and groundwater							148,711	2743
1.2.1.1	Formulation and revision of sub-basin water management plans	40%	Sub-basin water management plans are approved by the Ministry of the Environment in 2007 at the latest.	Water Policy Framework Directive 2000/60/EC	MOE	Continuous process	2001	20,598	0
1.2.1.2	Formulation of river basin water management plans by 2009 and revision of these plans every 6 years, incl. cross-border cooperation, assessment and modelling of environmental impact	50%	Individual river basin water management plans are approved by the Government of the Republic by 2009 at the latest; functioning cross-border cooperation; the environmental impact has been assessed against financial resources spent with a view to the improvement/ preservation of the status of water.	Water Policy Framework Directive 2000/60/EC	MOE	Continuous process	2007	30,896	0
1.2.1.3	Ensuring the preparation and implementation of programmes of measures relating to river basin and sub-basin water management plans	80%	Programmes of measures and sub-basin water management plans have been approved and are implemented since 2007; programmes of measures and river basin water management plans are approved in 2009 at the latest and are implemented since 2012 at the latest.	Water Policy Framework Directive 2000/60/EC	MOE	Continuous process	2007	10,299	0
1.2.1.4	Reduction of discharges of dangerous substances, incl. a programme concerning phenol discharges	70%	Obligations assumed with regard to discharges of dangerous substances have been complied with; discharges of phenol have been reduced to one ton per year by 2014.	Directive on dangerous substances 76/464/EEC	MOE	8	2007	30,634	0
1.2.1.5	Implementation of the action plan for nitrate-sensitive zone 2004-2008	60%	The action plan for nitrate-sensitive zone has been implemented.	Nitrates Directive 91/676/EC; Water Policy Framework Directive 2000/60/EC	MOE, MOA	2	2004	14,400	2743
1.2.1.6	Supplementation/updating of the action plan for nitrate-sensitive zone	50%	The action plan for nitrate-sensitive zone has been updated.	Nitrates Directive 91/676/EC; Water Policy Framework Directive 2000/60/EC	MOE, MOA	1-2	2008	1284	0
1.2.1.7	Implementation of the supplemented/updated action plan for nitrate-sensitive zone 2009-2014	60%	The action plan for nitrate-sensitive zone has been implemented by 2014.	Nitrates Directive 91/676/EC; Water Policy Framework Directive 2000/60/EC	MOE, MOA	5	2009	30,700	0
1.2.1.8	Formulation of a floods management plan	60%	The plan is approved by 2015 at the latest.	EU floods strategy, draft Floods Directive	MOE	4	2009	3600	0
1.2.1.9	Formulation of a regional marine protection strategy for the Baltic Sea	70%	The strategy has been adopted.	Water Policy Framework Directive 2000/60/EC, EU marine strategy, draft Marine Directive	MOE	3	2007	3050	0

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1.2.1.10	Formulation of a plan of measures relating to the regional marine protection strategy for the Baltic Sea	70%	The plan of measures has been adopted.	Water Policy Framework Directive 2000/60/EC, EU marine strategy, draft Marine Directive	MOE	10	2009	3250	0
1.2.2	Drafting and improvement of legislation concerning the protection of water due to the need to accord more consideration to the status of bodies of water							4923	0
1.2.2.1	Formulation of proposals for drafting the Water Act (subject to the approval of the Ministry of Justice for drafting the Act)	80%	The Water Act has been adopted.	Urban Wastewater Directive 91/271/EC; Drinking Water Directive 98/83/EC; Water Policy Framework Directive 2000/60/EC; Groundwater Directive 80/68/EEC; Dangerous Substances Directive 76/464/EEC, Sewage Sludge Directive 86/278/EEC, Nitrates Directive 91/676/EC, Bathing Water Directive 2006/7/EC; Surface Water Directives; Convention on the Protection of the Marine Environment of the Baltic Sea Area; Convention on the Protection and Use of Transboundary Watercourses and International Lakes; bilateral and multilateral international agreements on the arrangement of the protection and use of water of transboundary watercourses	MOE	1	2006	112	0
1.2.2.2	Drafting of implementing acts prescribed by the Water Act (formation of usage and pollution charges with a view to encouraging sustainable use of water; development and establishment of water status assessment systems; linking the authorisation of activities influencing the aquatic environment with the status of the given body of water, incl. restrictions on the use of land due to the need to protect water, etc.)	80%	Implementing acts concerning the formation of usage and pollution charges with a view to encouraging sustainable use of water; development and establishment of water status assessment systems, linking the authorisation of activities influencing the aquatic environment with the status of the given body of water, incl. restrictions on the use of land owing to the need to protect water, etc., have been adopted.	Water Act	MOE	Continuous process	2007	2575	0
1.2.2.3	Transposition of obligations arising from the draft Floods Directive in the legislation of Estonia	70%	The obligations have been transposed in the legislation of Estonia.	Draft Floods Directive	MOE	2	2007	1430	0
1.2.2.4	Transposition of obligations arising from the draft Marine Strategy Directive in the legislation of Estonia (term of transposition: 2009-2011)	70%	The obligations have been transposed in the legislation of Estonia.	Draft Marine Strategy Directive	MOE	3	2009	219	0
1.2.2.5	Transposition of obligations arising from the new Groundwater Directive in the legislation of Estonia	70%	The obligations have been transposed in the legislation of Estonia.	Draft Groundwater Directive	MOE	2	2007	587	0
1.2.3	Development and implementation of a system of incentives and benefits for reduction of human impact on bodies of water and for improvement of the status of surface water and groundwater							8,818,384	8,314,549
1.2.3.1	Ensuring the collection and treatment, according to requirements, of urban wastewater from collection areas with a population of more than 2000	80%	100% of wastewater collected and duly treated by the end of 2010	Urban Wastewater Directive 91/271/EC; Water Policy Framework Directive 2000/60/EC	MOE, LG	4	2007 (activities started in 2000)	4,248,908	4,009,990
1.2.3.2	Ensuring the treatment, according to requirements, of urban wastewater from collection areas with a population of less than 2000	70%	100% of wastewater duly treated by the end of 2013	Water Policy Framework Directive 2000/60/EC	MOE, LG	7	2007 (activities started in 2000)	3,104,945	2,929,077
1.2.3.3	Improvement and restoration of the ecological and chemical status of bodies of surface water, incl. rehabilitation of bodies of water	70%	A good status of surface water or a good ecological potential of surface water has been achieved by 2015 at the latest.	Water Policy Framework Directive 2000/60/EC, Urban Wastewater Directive 91/271/EC, Nitrates Directive 91/676/EC	MOE, LG, owners of bodies of water, persons influencing the status of bodies of water	Continuous process	2007	1,459,382	1,375,482

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1.2.3.4	Identification of bodies of water in need of protection; formation of water protection areas and ensuring the protection thereof (reservoirs, water catchment areas, karst areas, springs)	70%	Bodies of water in need of protection have been identified, the water protection areas have been formed and water protection plans have been prepared for these areas.	Water Policy Framework Directive 2000/60/EC	MOE	Continuous process	2007	5149	0
1.2.4	Improvement and further development of supervision and monitoring							242,000	0
1.2.4.1	Improvement of supervision over compliance with environmental requirements (incl. monitoring aimed at quick detection of marine pollution, conformity of manure storage facilities to requirements, supervision over the environmentally efficient use of resources received from Structural Funds, monitoring of wastewater, etc.)	80%	Functioning regular supervision of potential polluting objects and preventive activities; the effect of using resources received from Structural Funds is measurable in the environment.	Water Policy Framework Directive 2000/60/EC, Groundwater Directive 80/68/EEC, Dangerous Substances Directive 76/464/EEC, Urban Wastewater Directive 91/271/EC; Nitrates Directive 91/676/EC, Surface Water Directive, Environmental Liability Directive 2004/35/EC	MOE, EI	Continuous process	2007	90,694	0
1.2.4.2	Development and implementation of aquatic environment monitoring programmes to assess the status of the aquatic environment and factors affecting it (incl. point source discharges, water abstraction, hydromorphological changes in bodies of water), determine the efficiency of measures taken and plan further activities	60%	Monitoring programmes have been developed and are capable of being implemented; they provide updated information concerning the status of the aquatic environment and factors affecting it.	Water Policy Framework Directive 2000/60/EC, Groundwater Directive 80/68/EEC, Dangerous Substances Directive 76/464/EEC, Urban Wastewater Directive 91/271/EC, Nitrates Directive 91/676/EC, Drinking Water Directive 98/83/EC, Surface Water Directives	MOE, LG, users of water, persons influencing the status of water	Continuous process	2007	137,330	0
1.2.4.3	Arrangement for the protection and use of bodies of groundwater (water resources, wells without owners; annual accounting for groundwater areas artificially created in mining areas)	70%	Resources of water to be used as drinking water have been adequately investigated and identified; wells without owners do not endanger the quality of groundwater; annual accounting for groundwater areas artificially created in mining areas is ensured.	Water Policy Framework Directive 2000/60/EC, Groundwater Directive 80/68/EC, Dangerous Substances Directive 76/464/EC	MOE, LG, persons influencing the status of groundwater	Continuous process	2007	13,976	0
1.3	**MINERAL RESOURCES**							239,079	24,339
1.3.1	Drafting and implementation of national development plans for extraction and utilisation of mineral resources				MOE, MOEAC		2007	230,238	23,049
1.3.1.1	Updating of the database of mineral raw materials in the Environmental Register Geological mapping of Estonia and re-assessment (ranking) of mineral deposits on the basis of their impact on the environment, location and economic expediency (extraction status)	60%	50% of maps encompassing the entire Estonia are available with the scale of 1:50000; the extraction status of mineral resources (active, passive, spare) has been reassessed.		MOE, MOEAC, GSE, producers' associations: EMS, ACMPE, EPS	7	In progress	161,586	23,049
1.3.1.2	Determination of the optimal extraction capacity of oil shale, mineral resources used in construction industry (limestone, sand and clays), as well as peat in a time perspective (up to 20 years)	70%	Optimal volume of using Estonian mineral raw materials as determined by a Government of the Republic Regulation	This activity must be assigned the highest priority in the sphere of mineral resources. However, as there are no international directives, the relative share of priority is lower when compared to other spheres. Therefore, it is most important to appropriately regulate this sphere in Estonia.	MOE, MOEAC	7	2007	3521	0
1.3.1.3	Formulation of a national development plan for using oil shale in 2007-2015	50%	Development plan adopted		MOE, MOEAC, EMS, TUT	3	2007	469	0
1.3.1.4	Formulation of a national development plan for extraction and use of mineral resources used in construction industry	50%	Development plan		MOE, MOEAC, TUT, EMS, ACMPE	3	2007	5906	0
1.3.1.5	Formulation of a national development plan for extraction and use of peat	50%	Development plan		MOE, MOEAC, TUT, EMS, ACMPE, EPS	3	2007	7365	0
1.3.1.6	Implementation of the national development plan for extraction and use of oil shale	50%	Development plan implemented		MOE, MOEAC, EMS, TUT	4	2010	38,167	0
1.3.1.7	Implementation of the national development plan for extraction and use of mineral resources used in construction industry	50%	Development plan implemented		MOE, MOEAC, TUT, EMS, ACMPE	4	2010	6612	0

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1.3.1.8	Implementation of the national development plan for extraction and use of peat	50%	Development plan implemented		MOE, MOEAC, TUT, EMS, ACMPE, EPS	4	2010	6612	0
1.3.2	Encouraging companies that extract and use mineral resources to focus on environmental sustainability							8841	1290
1.3.2.1	Establishment of a lease system for developers of mineral deposits (mining claim areas), i.e. build the issuance of exploration and extraction permits upon a commercial basis	10%	The procedure for applying for permits of geological exploration and extraction of mineral resources has been changed.		MOE, MOEAC	7	2007	0	0
1.3.2.2	Formulation of a methodology for assessing the commercial (monetary) value of mineral deposits and the relevant plots of land, and establishment of a procedure for assessment	20%	The methodology and procedure have been established.		MOE, MOEAC	2	2008	2945	0
1.3.2.3	Differentiation of the fees for mining rights in dependence of the extraction status of mineral deposits (considering the value of land, infrastructure and environmental restrictions)	30%	The procedure for payment for geological exploration and extraction of mineral resources has been changed.		MOE, MOEAC	3	2007	2945	0
1.3.2.4	Setting up and implementation of a system of benefits and incentives with a view to introduction of environmentally sustainable technologies and restoration of mining areas	40%	The procedure for payment for geological exploration and extraction of mineral resources has been changed.		MOE, MOEAC	6	2008	2951	1290
1.4	**FOREST**							6,504,038	0
1.4.1	Long-term planning of the development of forestry with a view to balanced satisfaction of economic, social, ecological and cultural needs							96,822	0
1.4.1.1	Extension of the time horizon of the development plan of forestry until 2020 and drafting a new development plan	60%	Development plan adopted		MOE	2	2008	1998	0
1.4.1.2	Elaboration of plans and regulations aimed at the preservation of age type diversity and ensuring typological representativeness (also in commercial forests)	50%	Plans and regulations drafted		MOE	Continuous process		571	0
1.4.1.3	Supplementation of the action plan for versatile use of forests with a view to preserving and introducing heritage culture relating to forests	40%	Objects of heritage culture have been mapped and the action plan has been supplemented.		MOE, SFMC	Continuous process		28,864	0
1.4.1.4	Protection of genetic resources and supplementation of the archive of clones	40%	An archive of clones with the successors of all plus-trees exists.		MOE	Continuous process	2007	6178	0
1.4.1.5	Replenishment of the state's seed reserve	40%	A stable seed stock exists at all times.		MOE	Continuous process	2007	44,851	0
1.4.1.6	Supervision over the production and replenishment of forest cultivation materials	60%	High-quality forest cultivation materials can be supplied to consumers.		MOE	Continuous process	2007	5664	0
1.4.2	Development of a system of incentives, benefits and regulations with a view to encouraging the management and sustainable use of multifunctional forests							4,559,061	0
1.4.2.1	Preparation of implementing proposals for systematic use of economic mechanisms in order to support sustainable and economically efficient management of multifunctional forests	60%	Proposals submitted		MOE	1	2009	536	0
1.4.2.2	Development of a system of incentives and benefits with a view to ensuring versatile use of private forests	40%	The system of benefits is functioning		MOE, MOF, Private Forest Centre	Continuous process	Continuing	1,578,661	0
1.4.2.3	Supporting sustainable development of multifunctional forests	60%	The area of forests is preserved or increases.			Continuous process	Continuing	2,816,720	0
1.4.2.4	Development of a system for supporting the development of forestry technologies that aim at reducing environmental damage and valorising forestry products	30%	The system has been developed.		MOE, the University of Life Sciences	Continuous process	2007	162,675	0

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1.4.2.5	Supporting the elaboration of Estonian standards of internationally acknowledged certification systems by 2009 and encouraging the promotion of sustainable forestry	30%	The national standards have been elaborated.		MOE, Private Forest Centre	2	2007	469	0
1.4.3	Development of forestry-related information and monitoring systems to enable informed decisions to be made							1,173,396	0
1.4.3.1	Development of a forestry information system and carrying out forestry surveys to obtain objective and updated overviews of processes in the forestry sector (forest register, inventory of private forests, forestry information and statistics)	70%	The information system functions.		MOE, CFPS	Continuous process	2007	480,789	0
1.4.3.2	Organisation of monitoring to supervise the attainment of all four components of the objective to balance different needs in growing and using forests.	60%	Monitoring functions.		MOE, CFPS	Continuous process	2007	94,247	0
1.4.3.3	Development of a support system that ensures continuous monitoring and protection of key biotopes	60%	The protection of key biotopes is ensured.		MOE	Continuous process	2007	598,360	0
1.4.4	Improvement of the supervision system for reduction of unlawful use of forests				MOE			674,759	0
1.4.4.1	Improvement of control over supply chain, incl. origin of imported timber	30%	Measures improving the control have been implemented.		MOE, MOF, MOEAC	2	2008	514	0
1.4.4.2	Control over payment of taxes; development of a pertinent information system	50%	The information system functions.		MOE, MOF, MOEAC	3	2007	967	0
1.4.4.3	Employment of nature guards in intensely used and sensitive areas	30%	Nature guards have been employed.		MOE, NCC	Continuous process	2007	45,868	0
1.4.4.4	Improvement of post-felling supervision and implementation of obligatory reforestation (for the purposes of the Forest Act)	60%	Reforestation is ensured.		MOE, EI	Continuous process		9482	0
1.4.4.5	Development of integrated supervision over compliance with provisions of forestry law and hunting	60%	Decrease in violations of law		MOE, EI	Continuous process		617,928	0
1.5	**FISH**							428,811	68,505
1.5.1	Long-term planning of the development of fisheries, elaboration and implementation of regulations for sustainable management of fish resources							110,714	0
1.5.1.1	Implementation of the Fisheries Strategy	50%	The Strategy has been implemented.		MOA	7	2007	0	0
1.5.1.2	Identification and implementation of measures necessary for ensuring peaceful spawning of fish	50%	Measures necessary for ensuring peaceful spawning of fish have been implemented		MOE	7	2007	515	0
1.5.1.3	Matching fishing capacity with fishing opportunities and resources	80%	Fishing capacity matches fishing opportunities and resources	European Common Fisheries Policy (CFP)	MOE, MOA	Continuous process		106,903	0
1.5.1.4	Organising a system of leasing the management of fish stocks	40%	Lease mechanisms have been developed.		MOE	Continuous process		2754	0
1.5.1.5	Identification of bodies of water and coastal areas suitable for recreational fishing activities	10%	Bodies of water suitable for recreational fishing activities have been identified.		MOE	3	2007	542	0
1.5.2	Improvement of monitoring and supervision to ensure ecosystem-based management of fish stocks and minimising the effect of fishing							219,645	68,505
1.5.2.1	Improvement of supervision over fishing activities	60%	Improved supervision		EI	6	2007	121,718	68,505
1.5.2.2	Improvement of the assessment of the indirect effects of special use of water (damming, fish farming, dredging, dumping into bodies of water, transportation of water) on fish resources, and taking into account these effects (environmental impact assessments, etc.)		Improved quality and supervision of environmental impact assessments		MOE	6	2007	4868	0

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1.5.2.3	Zoning of coastal waters and mapping of spawning sites and habitats in coastal waters	50%	Spawning sites and habitats have been mapped.		MOE	3	2007	2815	0
1.5.2.4	Mapping of spawning sites and habitats in inland bodies of water, and concentration of information concerning the spawning sites and habitats	50%	Spawning sites and habitats have been mapped.		MOE	7	2007	7112	0
1.5.2.5	Preparing an overview of fish resources and reproductive capacity, improvement of monitoring of fish resources and of the accuracy of fishing statistics	50%	Better overview of fish resources and reproductive capacity; more accurate fishing statistics	EC Regulations No. 1543/2000, 1639/2001 and 1584/2004	UT MI, MOE, MOA	7	2007	83,132	0
1.5.3	Development of a system of incentives and benefits that promotes sustainable use of fish resources							98,452	0
1.5.3.1	Development and implementation of mechanisms for compensation of damage caused by competing species (incl. seals and cormorants)	10%	The mechanisms for compensation have been developed.		MOE, MOA	7	2007	24,099	0
1.5.3.2	Promotion of the introduction and use of environmentally sustainable fishing gear and methods	90%	Use of selective fishing methods		MOE	7	2007	59,388	0
1.5.3.3	Promotion of environmentally sustainable recreational fishing as tourism and recreation activities; promotion of relevant training	40%	Recreation fishing as a branch of recreation industry has developed; training courses have been carried out.		MOE, MOA	7	2007	14,965	0
1.6	**GAME**							317,528	84,884
1.6.1	Long-term planning of the development of hunting, being based on the agreement of different stakeholders on the ecological, social and economic aspects of hunting							103,909	0
1.6.1.1	Implementation of the Hunting Development Plan	60%	Activities specified in the Hunting Development Plan have been carried out.		MOE	7	2007	82,390	0
1.6.1.2	Preparation of management plans for hunting grounds	60%	Management plans for hunting grounds have been prepared.		MOE, CFPS	7	2007	20,598	0
1.6.1.3	Preparation of management plans for using and protection of wild game	70%	Management plans for use and protection have been prepared.	Directive 92/43/EEC	MOE	1	2007	921	0
1.6.2	Development of research and setting up a monitoring system for research-based exploitation of game populations							82,643	46,597
1.6.2.1	Conducting research for research-based exploitation of game populations	80%	Management of exploitation and protection is based on reliable information concerning the ecology of local populations	Management plan for control and protection of Estonian large predatory game (2002-2011)	CFPS	5	2008	20,598	0
1.6.2.2	Development and implementation of a complex monitoring plan and relevant methods	80%	Annual adequate assessments of the status of wild game populations are available.		CFPS	7	2007	10,299	0
1.6.2.3	Development of research activities and organisational structure in the hunting sector	70%	High potential of the hunting sector for carrying out research, and acting on the results of research		MOE	3	2007	51,746	46,597
1.6.3	Training of hunters and designing the reputation of hunting	60%	Increased awareness of hunters; positive image of hunting in society		MOE	7	2007	82,390	0
1.6.4	Diversification of rural life through hunting activities	40%	Increased importance of hunting in rural regions		MOE, MOA	7	2007	48,586	38,287
1.7	**SOIL**							12,427	0
1.7.1	Elaboration and implementation of an integrated soil policy for sustainable utilisation of soil							0	0
1.7.1.1*	Drafting of the Soil Act in conjunction with the Ministry of Justice, which regulates the protection and use of soil in an integrated manner	40%	The Soil Act has been adopted.		MOE, MOA, ARC	2	2010	0	0
1.7.1.2*	Elaboration of an action plan for sustainable utilisation of soil	40%	The action plan has been adopted.		MOE, MOA, ARC	7	2007	0	0
1.7.1.3*	Formulation of a soil policy	50%	The policy has been formulated.	European Soil Strategy COM(2006)231; SEC(2006)620; SEC(2006)1165; COM(2006)232 (2006/0086(COD)); Rural Development Plan 2007-2013	MOE, MOA, ARC	7	2007	0	0

No.	Line of action in the Environmental Strategy and the name of the activity	Priority	Outcome pursued (indicators)	Connection with other strategic documents, international agreements, directives, etc.	Responsible entities	Duration of implementation (a)	Starting year	Cost of activity in 2007-2013 (adjusted) EEK thousand	Incl. investment (adjusted) EEK thousand
1.7.1.4*	Establishment of an organisation for settlement of problems arising from the use of soil, which unites various stakeholders		Liability has been defined.		MOA, MOE	1	2007	0	0
1.7.2	Development of a monitoring and information system concerning the use of land and soil							9852	0
1.7.2.1	Development of monitoring of the use of land	60%	Adequate information concerning the use of soil and land is available for making further decisions	European Soil Strategy	MOE, ARC	7	2007	6762	0
1.7.2.2	Harmonisation of databases containing information about the use of land and about soil parameters; creation of opportunities for cross-usage of the databases	50%	The database has been set up.		MOE, ARC	7	2007	3090	0
1.7.3	Increasing the awareness of land-owners about the need to keep plots of land with high-class soil in agricultural usage as well as about the preservation and improvement of soil fertility							2575	0
1.7.3.1*	Dissemination of information, in a format understandable to everyone, about soil fertility (on the basis of soil maps)	40%	Loss of agricultural land to construction areas has decreased when compared to 2006.	European Soil Strategy	MOA, MOE	7	2007	0	0
1.7.3.2*	Introduction and promotion of technologies suitable for preservation of soil fertility	50%	Increased awareness about technologies that contribute to the preservation of soil fertility		MOA, MOE	7	2007	2575	0
1.7.4	Setting up and implementation of a system of incentives and benefits ensuring sustainable use of soil							0	0
1.7.4.1*	Setting up a system of support for development and introduction of technologies that contribute to the preservation and improvement of soil fertility		More technologies that contribute to the preservation of soil fertility are being used.		MOA (ARC), MOE			0	0
1.8	**USE OF LAND**							336,328	0
1.8.1	Formulation and implementation of a landscape policy, considering the principles of the European Landscape Convention; if necessary, drafting the relevant legislation, instructions and action plans							80,176	0
1.8.1.1	Ratification of the European Landscape Convention	70%	The Convention has been ratified.	European Landscape Convention	MOE, MOC	2	2007	352	0
1.8.1.2	Analysis of the general and special measures of protection, management and planning of landscapes, and drafting of a further action plan	40%	Analysis of the operation of measures; action plan	European Landscape Convention	MOE, MOC	2	2007	3282	0
1.8.1.3	Identification of quality indicators on the local level	40%	Quality indicators have been identified.	European Landscape Convention	MOE, MOIA	5	2009	11,044	0
1.8.1.4	Updating the plan for development of rural architecture and landscapes, and ensuring the implementation thereof		The development plan has been updated.		MOA	Continuous process		35,421	0
1.8.1.5	Ensuring the implementation of the thematic plan concerning valuable landscapes		Improved protection of valuable landscapes		MOA, LG	Continuous process		19,479	0
1.8.1.6	Drafting of an action plan for arranging spoilt and polluted landscapes	90%	The action plan has been drafted	National Rural Development Plan 2007-2013	MOE, MOA, MOIA	2	2007	4558	0
1.8.1.7	Elaboration of the principles of recultivation, restoration and arrangement, and elimination of objects littering landscapes, with a view to arrangement and multifunctional use of various types of spoilt landscapes	60%	Guidance documents concerning recultivation, restoration and arrangement have been drafted.	National Rural Development Plan	MOE, MOA	2	2008	3617	0
1.8.1.8	Drafting of guidance documents for integration of the improvement of ecological status in recultivation plans (i.e. recultivation of spoilt areas in a manner that suits the given location the best, ecology and landscape-wise, and considering also the social needs of the region in question, e.g. by way of creating new bodies of water, afforestation and/or restoration of wetland)	60%	Guidance documents have been drafted.		MOE	3	2009	2423	0

No.	Line of action in the Environmental Strategy and the name of the activity	Priority	Outcome pursued (indicators)	Connection with other strategic documents, international agreements, directives, etc.	Responsible entities	Duration of implementation (a)	Starting year	Cost of activity in 2007-2013 (adjusted) EEK thousand	Incl. investment (adjusted) EEK thousand
1.8.2	Development of landscapes-related information and monitoring systems to enable informed decisions to be made							27,421	0
1.8.2.1	Updating and harmonisation of the landscape monitoring system	50%	Updated landscape monitoring programme		MOE	2	2007	4519	0
1.8.2.2	Supplementation of the Estonian nature information system with landscape-related information	60%	Supplemented information system		MOE	7	2007	10,191	0
1.8.2.3	Inventory of spoilt and polluted areas as well as individual objects littering landscapes (mapping, overview) Subtopics: peat lands, quarries, agricultural production areas.	60%	Inventories taken by sub-sectors.	National Rural Development Plan	MOE, MOA, MOIA	3	2007	10,635	0
1.8.2.4	Elaboration of a methodology for assessment and monitoring of the arrangement and recultivation of spoilt areas and for the elimination of objects littering landscapes, and organisation of monitoring	50%	Functioning assessment and monitoring system		MOE, MOA	5	2009	2076	0
1.8.3	Setting up a system of incentives, benefits and regulations with a view to encouraging multifunctional and sustainable use of land							228,731	0
1.8.3.1	Setting up and implementation of the system of incentives, benefits and regulations	60%	Functioning system of benefits	European Landscape Convention	MOA, MOIA, MOE	7	2007	164,781	
1.8.3.2	Elaboration of the principles of financing the recultivation, restoration and arrangement of spoilt areas and elimination of littering objects	60%	Functioning financing of the arrangement of spoilt areas		MOE, MOA	2	2007	9006	0
1.8.3.3	Support for arrangement of spoilt and polluted areas (e.g. military areas, quarries, peat production areas, agricultural production areas, etc.)	50%	Arranged objects and territories (numbers and areas to be specified)	National Rural Development Plan	MOE, MOA	5	2009	47,308	0
1.8.3.4.	Support to private sector and the third sector for arrangement of spoilt landscapes	50%	Functioning cooperation		MOE, MOA, MOIA	7	2007	7636	0

2	**PRESERVATION OF THE DIVERSITY OF LANDSCAPES AND BIODIVERSITY**							4 425 976	945 724
2.1	**LANDSCAPES**							1,497,196	285,592
2.1.1	Long-term and integrated planning of nature conservation, being based on the need to preserve coherent and multifunctional landscapes and on the priorities of nature conservation development plan							223,341	56,481
2.1.1.1	Formulation, development and implementation of principles, organisational mechanisms and regulations necessary for valorisation, restoration and preservation of natural landscapes and semi-natural biotic communities	85%	Organisational mechanisms and regulations for preservation of natural landscapes and semi-natural biotic communities have been formulated	Convention on Biological Diversity, Nature Directive	MOE	Continuous process	2007	31,120	2038
2.1.1.3	Integration of industrial sectors with a view to preserving the diversity of landscapes and nature in a manner ensuring that the preservation of different values of the natural environment is supported by social and economic developments	75%	A balanced and sustainable system for management of nature has been developed where social equality, employment and protection of natural values are ensured; plans of economic sectors support the preservation of natural values; nature conservation has become an economically valid sphere; integrated inter-sector management is functioning and is based on ecological principles.	Convention on Biological Diversity, Sustainable Estonia 21, Landscape Convention	MOE, MOA, MOEAC, MOIA, MOSA	Continuous process	2007	21,925	2833
2.1.2	Setting up a system of balanced benefits and incentives to ensure the preservation of the diversity of landscapes and various types of habitats							524,911	1310
2.1.2.1	Development of support systems necessary for diversification of the functions of landscapes, incl. setting up a system of incentives and benefits for private land owners, keeping in mind the need to preserve/restore valuable habitat types and biotic communities	85%	The system of incentives and benefits has been developed and is being implemented	Convention on Biological Diversity, European Landscape Convention, National Rural Development Plan 2007-2013	MOE, MOA	Continuous process	2007	508,083	

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2.1.2.2	Elaboration and implementation of the financing principles and bases for recultivation/restoration of spoilt landscapes, being based on the relevant action plans (e.g. arrangement and restoration of the littered military areas created during the Soviet regime)	60%	Support systems, methodologies and action plans for restoration/arrangement of various spoilt, but valuable natural landscapes have been developed; the relative share of littered and spoilt landscapes has decreased	Convention on Biological Diversity	MOE, MOA	Continuous process	2007-2010	16,828	1310
2.1.3	Improvement and development of supervision and organisational systems for the purpose of managing the use of land beyond protected areas and thereby promoting the preservation of the diversity of landscapes and species							187,466	0
2.1.3.1	Elaboration of the principles of determining the elements of green networks, conditions of use and monitoring on the level of local governments; development and implementation of measures relating to planning and management of the use of the environment, being based on the tolerance of the environment	60%	Green networks are coherent and ecologically and recreationally functioning; the monitoring system has been implemented on the level of local governments	County thematic plan, Convention on Biological Diversity	LG, MOE	Continuous process	2007	151,992	
2.1.3.2	Formulation and further development of criteria, guidelines and regulations for managing the use of land with a view to ensuring the preservation of the diversity of landscapes and species	40%	Guidelines and regulations for managing the use of land have been developed and are implemented, and the preservation of the diversity of landscapes and species is thus ensured	Convention on Biological Diversity	MOE	6	2008	17,997	
2.1.3.3	Improvement of state supervision over the plans of local governments and alteration of the designated purpose of land so as to ensure the preservation of the diversity of landscapes and species	50%	Improved supervision over plans		County governments, environmental departments	7	2007	17,477	
2.1.4	Development of the system of nature education ensuring the provision of high-quality systematic nature education and continuing training of various target groups, which supports practical nature conservation							561,478	227,801
2.1.4.1	Establishment of a network of nature education support centres with a view to ensuring systematic nature education, tuition based on thematic programmes as well as support to the practical nature education provided in schools of general education	80%	A network of nature education support centres has been established for systematic and practical nature education	Concept of environmental education	MOE, MORE	Continuous process	2007	289,106	169,107
2.1.4.2	Improvement of the availability, diversity and quality of information concerning nature, increasing the coverage of such information in the media and integration of that information in nature education programmes in schools of different levels	80%	Information concerning nature is diverse and meets the expectations and needs of various target groups; information concerning nature and the environment is available through all media channels and in different formats	Concept of environmental education, Arhus Convention	MOE, MORE	Continuous process	2007	88,709	3702
2.1.4.3	Development of practical nature education and formulation, or adaptation to the circumstances of Estonia, of modern interactive nature education methods and programmes and implementation of the same	70%	Modern interactive nature education methods and programmes exist and are implemented in nature education.	Concept of environmental education	MOE, MORE	Continuous process	2007	100,748	22,644
2.1.4.4	Development of systematic further nature education programmes and organisation of training on the basis of the needs of various target groups	70%	Further training based on the needs of various target groups has been launched.	Concept of environmental education	MOE (MORE*)	Continuous process	2007	37,671	5230
2.1.4.5	Supplementation of national curricula with subjects relating to natural sciences and environmental education, and providing educational institutions with guidelines and resources necessary for implementation of the principles of the curriculum and for setting environment-related goals in the development plans of educational institutions	70%	High-quality and systematic nature education is provided in various educational institutions.	Concept of environmental education	MOE (MORE*)	Continuous process	2007	45,244	8176
2.2	**BIODIVERSITY**							2,928,780	660,132
2.2.1	Formulation of measures to oust alien species and avoid the spread of new potentially invading alien species							93,735	9109

No.	Line of action in the Environmental Strategy and the name of the activity	Priority	Outcome pursued (indicators)	Connection with other strategic documents, international agreements, directives, etc.	Responsible entities	Duration of implementation (a)	Starting year	Cost of activity in 2007-2013 (adjusted) EEK thousand	Incl. investment (adjusted) EEK thousand
2.2.1.1	Formulation and implementation of an action plan for ensuring biodiversity, incl. a conception concerning alien species	85%	The document has been approved and is being implemented.	Communication from the Commission Halting the Loss of Biodiversity by 2010 and Beyond. "Sustaining ecosystem services for human well-being"; EU Biodiversity Strategy 1998 and Action Plan 2001	MOE	Formulation – 1, implementation – continuous	2008	38,068	
2.2.2	Development and improvement of monitoring systems to enable informed decisions to be made							145,020	7184
2.2.2.1	Development of a biodiversity monitoring system and improvement of the capacity of producing information necessary for making informed decisions in the sphere of nature conservation	90%	Biodiversity is monitored in an integrated and consistent manner and the biodiversity monitoring system satisfies the needs of protected areas, needs of the state as well as international obligations.	Convention on Biological Diversity	MOE, NCC, EIC	Continuous process	2007	37,948	1851
2.2.2.2	Continuous production of information based on research and monitoring activities and utilisation of that information in nature education (increasing society's awareness of the environment) and in the development of nature conservation system (improving the capacity and qualification of officials and specialists). Formulation of applicable guidelines on the basis of the monitoring information, being based on the needs of different target groups (incl. for the purpose of organising the protection of habitats and biotic communities)	80%	Current information about data generated as a result of research and monitoring activities, as well as data needed for nature conservation purposes is available and it meets the needs of various target groups.	Convention on Biological Diversity	MOE, EIC	Continuous process	2007	107,073	5333
2.2.3	Preservation, supplementation and development of the existing network of protected areas							2,690,025	643,839
2.2.3.1	Promotion and organisation of the implementation of international programmes (incl. conventions) relating to nature conservation	75%	Requirements arising from conventions are being complied with.	Convention on Biological Diversity	MOE	Continuous process	2007	38,787	
2.2.3.2	Development and integration of protective measures and activities necessary for the protection of habitats and biotic communities so as to ensure the preservation of viable populations in a more effective manner	95%	Protective measures have been implemented.	Forestry Development Plan 2010, Convention on Biological Diversity	MOE, NCC, SFMC, CFPS	Continuous process	2007	2,521,976	605,104
2.2.3.3	Ensuring the continuous availability of overviews of the extent of threat to species in Estonia, which can be used for protection of different species and contributes to the preservation of endangered species and their habitats	95%	Maintaining a list of endangered species has been arranged in line with the principles of nature conservation; assessments of the extent of threat to species and the endangering factors are independent, objective and open to discussions.		MOE	Continuous process	2007	129,262	38,735
3	**CLIMATE CHANGE MITIGATION AND QUALITY OF AMBIENT AIR**								
3.1	**ENERGY PRODUCTION**							44,958,828	44,863,915
3.1.1	Assessment of the availability of existing energy resources and preparation of long-term plans for their utilisation							5389	0
3.1.1.1	Preparation of the Development Plan for Promotion of the Use of Biomass and Bio-Energy 2007-2013	60%	Input to energy-related development plans		MOA, MOE, MOEAC	1	2007	0	0
3.1.1.2	Updating of the plan of reducing greenhouse gas emissions (GGE)	70%	Input to energy-related development plans		MOE	1	2007	1349	0
3.1.1.3	Formulation and launching of the National Programme for Reduction of Summated Emissions from Stationary and Mobile Sources of Pollution in Estonia 2006-2015	70%	Input to energy-related development plans	NEC Directive	MOE	1	2007	1379	0
3.1.1.4	Formulation of a long-term national fuel and energy sector development plan	80%	Source document for developing the energy sector		MOEAC	1	2008	1341	0
3.1.1.5	Formulation of a development plan for the electricity sector	80%	Source document for developing the energy sector		MOEAC	1	2007	1320	0
3.1.1.6*	Formulation of the principles of energy import and export	60%	Source document for developing the energy sector		MOEAC	1			

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3.1.2	Drafting and supplementation of legislation concerning ambient air protection (subject to the approval of the Ministry of Justice for drafting legislation) and development of an ambient air monitoring system							42,411	0
3.1.2.1	Drafting and updating of the secondary legislation arising from the Ambient Air Protection Act (subject to the approval of the Ministry of Justice for drafting legislation)	50%	Draft legislation prepared or amended		MOE	Continuous process	2007	3507	0
3.1.2.2	Compliance with obligations arising from the protocols to the Geneva Convention on long-range transboundary air pollution, incl. developing a reporting system and upgrading the air monitoring system of the cooperative programme for monitoring and evaluation (EMEP)	50%	Obligations arising from the Convention are being complied with (reports have been submitted, monitoring is functioning, etc.).	Geneva Convention on long-range transboundary air pollution and Protocols thereto	MOE	Continuous process	2007	31,071	0
3.1.2.3	Introduction of the E-PRTR database in Estonia	60%	Transition from the current EPER database to the E-PRTR database	EC Regulation 166/2006, amendments to Directives 91/689/EEC and 96/61/EC dated 18 January 2006	MOE	Continuous process	2006	917	0
3.1.2.4	Inventory and monitoring of GGE	70%	Annual inventories are taken and companies covered by the National Distribution Plan 1 are monitored on a regular basis	UN IPCC, EU ETS Directive, EC decision 2004/156/EC	MOE, EIC	Continuous process	2007	3090	0
3.1.2.5	Updating the methodology for calculating GGE	50%	Calculation of GGE corresponds to international requirements	UN IPCC	MOE, EIC		2007	1659	0
3.1.2.6	IPCC reporting on GGE (climate reports)	70%	Regular climate reports are being prepared and they conform to set requirements.	UN IPCC	MOE, EIC	Continuous process	2008	737	0
3.1.2.7	Development and introduction of a domestic trading system for SO2 and NOX based on pollution ceilings	50%	The trading system functions.		MOE, EIC		2007	1430	0
3.1.3	Support to research and development activities and pilot projects relating to new energy production methods							38,287	38,287
3.1.3.1	Investment aid to the introduction of technologies for building innovative energy production facilities as well as technologies that offer solutions to local needs	70%	Functioning research projects as a result of which the feasibility of the suggested solutions will be assessed		TUT, UT, EEC companies, MOEAC	Continuous process	2007	38,287	38,287
3.1.4	Modernisation of existing production basis to bring it into conformity to environmental requirements							25,815,214	25,777,716
3.1.4.1	Construction of two new units of Narva Power Plants	80%	The units have been completed and they generate base-load electricity in Estonia while complying with all EU environmental requirements.	LCP Directive, NEC Directive, national energy-related strategies	EE	6	2006	8,253,297	8,252,178
3.1.4.2	Bringing Iru thermal power station into conformity to environmental requirements	70%	The combined heat and power plant complies with the environmental requirements of the EU	LCP Directive, national energy-related strategies	EE	5	2007	259,566	234,983
3.1.4.3	Renovation of Ahtme thermal power station and transition of the power station to more environmentally-friendly fuel	70%	The combined heat and power plant complies with the environmental requirements of the EU and uses more environmentally-friendly fuel instead of oil shale	LCP Directive, national energy-related strategies, Treaty of Estonia's accession to the EU	Kohtla-Järve Soojus	5	2007	1,234,020	1,228,096
3.1.4.4	Upgrading and improvement of the efficiency of waste gas purification facilities of the current energy units of Narva Power Plants	80%	Existing production facilities comply with environmental requirements of the EU	LCP Directive, NEC Directive, national energy-related strategies	EE	8	2007	4,369,965	4,369,965
3.1.4.5	Conversion of district heating power stations into combined heat and power plants	60%	Better utilisation of combined production potential	EU and national legislation concerning energy efficiency	MOEAC, LG, companies	5	2007	280,236	278,325
3.1.4.6	Renovation of the units of Narva Power Plants	80%	The units have been completed and they generate base-load electricity in Estonia while complying with all EU environmental requirements.	LCP Directive, NEC Directive, national energy-related strategies	EE	2	2012	5,024,219	5,022,444
3.1.4.7	Bringing other large combustion plants into conformity to the environmental requirements of the EU	70%	Large combustion plants located in Estonia comply with environmental requirements of the EU		Companies	5	2009	973,442	971,256
3.1.4.8	Establishment of new combined production facilities in locations that are suitable for that purpose both economically and in terms of environmental protection	70%	Maximum utilisation of the potential of combined production in Estonia		Companies	2	2007	1,879,680	1,879,680

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3.1.4.9	Renovation of district heating power stations and boilers in the locations where combined production is not expedient	60%	Current power stations and facilities characterised by lower efficiency are renovated to achieve a decrease in emissions and better efficiency		Producers of thermal energy	7	2007	3,540,789	3,540,789
3.1.5	Introduction of renewable and other alternative energy sources							19,057,527	19,047,912
3.1.5.1	Utilisation of waste for production of energy	40%	Existence of combined heat and power production plants that use waste or fuel based on waste		Companies, LG, MOE, MOEAC	8	2007	2,237,585	2,230,251
3.1.5.2	Partial use of biofuels in the oil shale units of Narva Power Plants	60%	Up to 10% of fuels used for production of energy comprise biofuels.		EE, NPP	2	2007	90,949	90,143
3.1.5.3	Replacement of fossil fuels with local renewable fuels	40%	Current production units have replaced fossil fuels with local renewable fuels	National energy-related development plans	MOEAC, LG, companies	7	2007	852,363	852,363
3.1.5.4	Construction of compensating facilities for increasing the possibility of using wind energy	60%	To compensate for the fluctuations of wind energy, back-up capacities that can readily be activated have been created in Estonia.		MOEAC, EE	2	2008	1,828,790	1,828,790
3.1.5.5	Creation of additional connections with Scandinavian countries for acquisition of compensating energy	70%	Estonia has adequate interconnection capacities with Scandinavian countries (1000 MW) to cover the compensation needs caused by the use of renewable energy sources		MOEAC, EE	3	2009	5,893,620	5,893,620
3.1.5.6	Establishment of windmill parks	70%	Establishment of additional windmill parks to achieve the renewable energy goal of Estonia	GGE National Distribution Plan 2, achievement of the renewable energy goals set by the EU	MOEAC, EE	7	2007	8,056,029	8,056,029
3.1.5.7	Development of combined heat and power production on the basis of landfill gases in all new and large-scale closed landfills	50%	Reduction of the emission of gases from landfills which contribute to climate changes, and more optimal use of energy resources		Companies, LG	4	2007	98,191	96,716
3.2	**ENERGY CONSUMPTION**							17,025,706	16,928,404
3.2.1	Formulation and implementation of regulations and support systems to enhance energy conservation and manage the consumption of energy							4308	0
3.2.1.1	Formulation of economic measures that regulate the promotion of the activities of apartment associations which render an energy conservation effect	70%	Apartment associations are actively carrying out energy conservation-related activities and are supported with special loans, support systems and simplified conditions.		MOEAC, MOF	2	2007	939	0
3.2.1.2*	Formulation and implementation of benefits for individuals aiming at the introduction of energy conservation technologies	70%	Individuals receive certain benefits or grants for investments made for the purpose of energy conservation.		MOEAC, MOF	2			
3.2.1.3	Formulation and implementation of the principles of energy charges in dependence of environmental impact	70%	The principles of charging for energy have been implemented which cause consumers to choose energy products that have a smaller impact on the environment.		MOEAC, MOF	3	2007	1341	0
3.2.1.4*	Development of economic mechanisms or support systems that increase the competitiveness of ecologically compatible ("green") energy products	70%	People can choose between various green products that can be acquired at competitive prices.		MOEAC, MOE, companies	3		0	0
3.2.1.5	Revision of existing regulations and drafting new regulations concerning energy conservation	80%	An appropriate legislative basis concerning energy audits exists in Estonia.		MOEAC	3	2007	1381	0
3.2.1.6	Formulation and implementation of more stringent environmental requirements for small boiler plants	60%	Prevention of excessive spread of small boiler plants in cities which deteriorate the quality of ambient air.		MOE	2	2007	647	0
3.2.2	Support to research and development activities and pilot projects relating to the optimisation of energy systems							3,009,761	2,926,870
3.2.2.1	Research and development activities relating to the optimisation of energy systems	70%	Partial and gradual decentralisation of networks can be started on the basis of the results of research activities		MOEAC, universities, companies	Continuous process		2,905,108	2,871,505
3.2.2.2	Research relating to the introduction of "smart" household appliances and conduct of first pilot projects	70%	Household appliances enter the market which consume energy only in low-load periods to reduce maximum consumption		MOEAC, universities, companies	Continuous process		65,983	24,407
3.2.2.3	Investigation of the possibilities of two-direction movement of information in the network and carrying out the necessary tests	80%	The possibility of obtaining information about low and high consumption loads is created with the help of IT which contributes to the optimisation of consumption.		MOEAC, universities, companies	4	2007	38,670	30,958

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3.2.3.	Upgrading of energy systems to reduce power and heat losses							14,001,534	14,001,534
3.2.3.1	Reduction of network losses upon transmission and distribution of electric energy	70%	Losses occurring in the transmission of electric energy are reduced pursuant to the strategic objectives of Estonia.		MOEAC, universities, companies	Continuous process		11,486,021	11,486,021
3.2.3.2	Renovation and interconnection of district heating systems	60%	The efficiency of existing district heating systems is increased and separate heat networks are interconnected.		Companies	Continuous process		2,515,513	2,515,513
3.2.4.	Increasing the awareness about energy conservation							10,103	0
3.2.4.1	Promotion of energy conservation; introduction of energy conservation principles and concepts	80%	Various printed materials and information concerning energy conservation in media channels		EE, MOE, MOEAC	Continuous process	2007	6071	0
3.2.4.2	Preparation of study materials concerning energy conservation for primary and secondary schools which are appropriate to the age of children	70%	Study materials are available that can be used in primary and secondary schools.		MOEAC, MORE, MOE	5	2007	2523	0
3.2.4.3	Development of knowledge concerning the conduct of energy audits and preparation of necessary guidance documents	60%	Knowledge necessary for the conduct of energy audits has increased and the relevant guidance documents have been prepared.		MOEAC	2	2007	1509	0
3.2.5	Integration of energy conservation in other sectors							0	0
3.2.5.1*	Introduction of energy audits and energy certificates in real estate development and public buildings	60%	Energy audits and energy certificates have become an inseparable part of real estate development, especially in the case of large public buildings.		MOEAC, MOE LG		0	0	0
3.2.5.2*	Integration of the principles of energy conservation in the principles of "green" public procurements	80%	"Green" public procurements contain requirements relating to energy conservation as an essential part subject to valuation.		MOEAC, MOE	2		0	0
3.3	**PROTECTION OF THE OZONE LAYER**							16,082	976
3.3.1	Collection, storage and reclamation, in an ecologically compatible manner, of ozone-depleting substances	40%	The use of substances that damage the ozone layer the most is terminated.	Compliance with EU Regulation No. 2037/2000	MOE, ERC	4	2007	13,829	976
3.3.2	Improvement of the qualification of personnel dealing with ozone-depleting substances	40%	Employees dealing with ozone-depleting substances have been trained in accordance with the EU requirements		MOE, ERC	4	2007	889	0
3.3.3	Supervision over systems and equipment that contain ozone-depleting substances	40%	Equipment containing ozone-depleting substances are controlled pursuant to predetermined principles		MOE, ERC	4	2007	1028	0
3.3.4	Revision of the plan for gradual removal from circulation of ozone-depleting substances	60%	Estonia has a plan for disposal of ozone-depleting substances which conforms to the actual situation in the country.		MOE, ERC	1	2007	336	0
3.4	**TRANSPORT**							4,844,671	4,709,108
3.4.1	Long-term planning of the development of sustainable transport							10,712	0
3.4.1.1	Updating and implementation of the public transport development plan 2006-2010	70%	Estonia has a public transport development plan that conforms to the actual situation in the country.		MOEAC	1	2007	392	0
3.4.1.2	Preparation, updating and implementation of long-term development plans that promote public transport in cities and densely populated areas	70%	Updated transport development plans exist for densely populated areas.		LG	6	2007	9829	0
3.4.1.3.	Updating and implementation of the Estonian Transport Development Plan 2007-2013	70%	Estonia has a transport development plan that conforms to the actual situation in the country.		MOEAC	1	2008	491	0
3.4.2	Elaboration and implementation of a system of regulations and benefits for development of public transport and soft traffic							4,397,402	4,396,938
3.4.2.1	Introduction of integrated transport systems in cities, incl. according priority to public transport vehicles	60%	Interconnected transport systems exist in larger cities where priority is accorded to public transport vehicles.		MOEAC, LG	7	2007	2,928,776	2,928,776
3.4.2.2	Construction of cycle lane networks in settlements and cities	50%	Adequate and safe soft traffic networks exist in cities and settlements		LG	7	2007	191,434	191,434
3.4.2.3	Extension of parking restrictions in city centres and creation of new, safe park-and-ride facilities	50%	Parking in city centre has been restricted in larger cities and thereby the use of public transport has increased		LG	7	2007	148,446	148,446

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3.4.2.4	Establishment of bike stands and "bike stations" in cities	40%	Bike stands and "bike stations" have been established in larger cities to promote soft traffic		LG	7	2007	26,454	26,454
3.4.2.5	Development of the infrastructure of passenger train traffic on all routes	70%	Passenger train traffic exists on all former routes		MOEAC	7	2007	1,101,828	1,101,828
3.4.2.6	Incorporation of the requirement to accord priority to environmentally sustainable public transport in the legislation that regulates the transport sector	70%	Legislation pertaining to planning and transport prefers public transport to private transport.		MOEAC	2	2007	464	0
3.4.3	Increasing society's' awareness and designing its attitude towards sustainable transport and city planning							172,927	71,788
3.4.3.1	Organisation of informative campaigns promoting public transport and soft traffic in various media channels	70%	People's awareness of the environmental benefits of public transport and soft traffic has increased.		MOE, MOEAC, LG	Continuous process		51,494	0
3.4.3.2	Educating the personnel of local governments and officials involved in planning about the possibilities of using environmentally sustainable public transport	70%	The knowledge of officials involved in planning and of specialists working in local governments about the exploitation of public transport has increased.		MOEAC, MOIA, MOE	Continuous process		3301	0
3.4.3.3	Organisation of campaigns for the safety of soft traffic and increasing safety	80%	Drivers' increased understanding of the safety of soft traffic, which contributes to its development		MOIA	Continuous process		118,132	71,788
3.4.4	Elaboration of regulations for reduction of energy consumption in transport and for reduced use of fossil fuels							263,630	240,382
3.4.4.1	Establishment of the requirement of at least 5% biodiesel content in diesel fuel sold in filling stations	70%	Diesel fuel sold in filling stations contains biodiesel at least to the extent of 5%.		MOEAC	3	2007	22,498	21,945
3.4.4.2	Establishment of the requirement of at least 5% ethanol content in petrol sold in filling stations	70%	Petrol sold in filling stations contains ethanol at least to the extent of 5%.		MOEAC	3	2007	29,814	29,261
3.4.4.3	Setting up and implementation of a system for managing the quality of fuels	80%	The management system has been created and is operational.		MOEAC	Continuous process		135,458	114,860
3.4.4.4	Collection and analysis of volatile organic compounds	50%	Minimised content of volatile organic compounds in the ambient air		MOEAC	Continuous process	2007	75,860	74,316
4	**THE ENVIRONMENT, HEALTH AND QUALITY OF LIFE**							7,418,776	7,105,335
4.1	**OUTDOOR ENVIRONMENT**							97,180	632
4.1.1	Development of a monitoring and information system for outdoor environment factors that affect health, and publication of data							76,476	0
4.1.1.1	Analysis and improvement of the existing monitoring system and national monitoring plans concerning the physical, chemical and biological factors of the environment, being based on assessed health hazards, and connecting the results of monitoring with health indicators/illnesses	90%	The physical, chemical and biological factors of the environment that affect health have been included in the monitoring system.	Directive of the European Parliament and of the Council on ambient air quality and cleaner air for Europe (COM(2005) 447); Budapest Declaration	MOE, MOSA	1	2008	2602	0
4.1.1.2	Connecting the results of monitoring with health indicators/illnesses	90%	Connections identified		MOSA, NIHD, UT, TUT	Continuous process every 4 years	2010	433	0
4.1.1.3	Identification of the needs for, and carrying out biomonitoring for the purpose of observing the trends of health effects and plan preventive actions	60%	Biomonitoring has been launched and is used for mitigating health risks.	Budapest Declaration (CEHAPE)	MOSA, NIHD, UT, TUT	2	2010	349	0
4.1.2.4	Development of a Web-based database on the basis of the database of monitoring results, and ensuring the availability of data in accordance with the needs of different stakeholders	70%	Stakeholders and their needs have been identified and the relevant information is available on the Internet.	Budapest Declaration (CEHAPE)	MOE	Continuous process	2008	1000	0

No.	Line of action in the Environmental Strategy and the name of the activity	Priority	Outcome pursued (indicators)	Connection with other strategic documents, international agreements, directives, etc.	Responsible entities	Duration of implementation (a)	Starting year	Cost of activity in 2007-2013 (adjusted) EEK thousand	Incl. investment (adjusted) EEK thousand
4.1.2.5	Formulation of a programme for assessment of the components of ambient air (PM2.5; noise, danger zones of electromagnetic fields and mapping of establishments exposed to the sources thereof)	90%	The programme for assessment of the components of ambient air has been formulated.	Budapest Declaration (CEHAPE)	MOE	7	2007	72,092	0
4.1.2	Development of a system for assessment and control of health hazards for reduction and mitigation of long-term environment-related health risks							16,587	632
4.1.2.1	Development of structures necessary for assessment of environment-related health risks (incl. a consultation system) on the basis of existing institutions	80%	The risk assessment and consultation system has been created.	Directives on environmental impact assessment and strategic environmental assessment	MOSA	Continuous process	2009	16,587	632
4.1.3	Formulation of regulations, instructions and action plans for mitigation of health risks in the urban environment							1029	0
4.1.3.1*	Mapping and assessment of environment-related health hazards and risks, and formulation of measures for mitigation and control of the risks on the basis of the results of assessment	90%	The measures for mitigation and control of risks have been formulated.	Budapest Declaration (CEHAPE)	MOSA, HPI, NIHD, universities	1	2008	0	0
4.1.3.2	Formulation and implementation of an action plan for reduction of the impact of existing structures that increase air pollution, noise, radiation and vibration levels and the hazard of disasters in densely populated areas	80%	The action plan has been formulated and its implementation has been started.	Directive on ambient air	LG		2012	1029	0
4.1.4	Increasing the knowledge of specialists and people about the health risks posed by the outdoor environment							3088	0
4.1.4.1	Increasing the knowledge of specialists and people about the health effects of the outdoor environment (media, guidance and informative materials, curricula, etc.)	60%	The media, guidance and informative materials, curricula, etc., have been prepared and training courses have been conducted.		MOSA, HPI, NIHD, universities	Continuous process	2008	3088	0
4.1.4.2*	Development of the speciality of environmental health from basic education (basic education concerning environmental health) to professional education (risk analysis) along with in-service training possibilities	60%	The curricula have been prepared.		MORE, MOSA			0	0
4.2	**INTERIOR SPACE**							5657	0
4.2.1	Formulation of regulations and development of a monitoring system for observing the status and health effects of interior space (incl. construction concepts)							2789	0
4.2.1.1	Specification of responsibilities and development of a system for integrated assessment of interior space along with the identification of the needs for monitoring	90%	The monitoring needs have been identified and the responsibilities of authorities have been determined.		MOSA, MOEAC	2	2008	156	0
4.2.1.2*	Development and improvement of a national programme for monitoring radon levels in residential and work space	60%	The monitoring programme has been developed.	Radiation Plan	MOE, Radiation Protection Centre				
4.2.1.3	Formulation of requirements for construction in danger zones (radon hazard, old landfills, etc.)	50%	Requirements for construction in danger zones (radon hazard, old landfills, etc.) have been formulated.		MOE, Radiation Protection Centre	7	2007	2633	0
4.2.2*	Development of support systems for use of environmentally sustainable and healthy materials and technologies	70%	The support systems have been developed.		MOE, MOSA				

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4.2.3	Increasing the knowledge of specialists and people about the health risks posed by the indoor environment							2868	0
4.2.3.1*	In-service training for specialists (incl. local governments)	60%	Training programmes have been elaborated and training courses have been carried out.		MOSA, UT, HI	7	2007	0	0
4.2.3.2	Dissemination of information about the status and health effects of living and working environment (incl. construction concepts) with a view to reducing hazards (penetration of noise, radon and other pollution of ambient air)	60%	Informative materials have been prepared and the availability of information is ensured.		MOSA, LI, HPI, Radiation Protection Centre	Continuous process	2007	2868	0
4.3	**FOOD**							155,465	15,325
4.3.1	Improvement of supervision over food							78,232	14,621
4.3.1.1	Extension and improvement of monitoring	80%	Sufficient data for assessment of the situation are available.	EC 882/2004 (29.04.2004)	VFB	Continuous process	2009	47,708	0
4.3.1.2	Extension of analysis opportunities	80%	The opportunities of carrying out analyses have been extended. Laboratories can use a technical base, means, methods and trained personnel for carrying out certain analyses. Resources for having certain analyses carried out abroad are available.		VFL, MOA, VFB, ARC	Continuous process	2009	30,524	14,621
4.3.2	Improvement of the information system of food contaminants							35,746	0
4.3.2.1	Improvement of the information system	70%	The interdepartmental information system has been improved, incl. databases have been created and updated; first of all, interoperable databases have been created.		VFB, MOA, NIHD, HPI, MOE, ERC, MOSA	3	2011	25,788	0
4.3.2.2	Formulation and publication of dietary guidelines for people	40%	Dietary guidelines have been formulated for people, incl. separately for risk groups		NIHD, MOSA, MOA, HPI	Continuous process	2010	1091	0
4.3.2.3	Ensuring the availability of data and information concerning the pollution load of food	40%	Increased awareness of certain contaminants (people, producers, etc.)	Regulation (EC) No. 882/2004 (29.04.2004)	VFB, MOA, NIHD	Continuous process	2009	7951	0
4.3.2.4	Surveys of awareness of target groups	40%	The awareness of target groups has been assessed and a basis exists for planning further actions		VFB, NIHD	Continuous process	2009	916	0
4.3.3	Development of a system for analysing risks arising from food contaminants							41,487	704
4.3.3.1	Development of a system for assessment of the health risks and effects arising from food contaminants	90%	The outline of the system has been developed, which serves as the basis for completion of the system.	Regulation (EC) No. 178/2002 (28.01.2002); Regulation (EC) No. 882/2004 (29.04.2004)	MOA, MOSA, MOE, VFB, NIHD, HPI	2	2009	559	0
4.3.3.2	Development of a system for assessment of the health risks and effects arising from food contaminants, incl. the necessary structure and data	90%	The system and structure have been developed and enable risk-based supervision to be carried out for the purpose of ensuring the safety of food.	Regulation (EC) No. 178/2002 (28.01.2002); Regulation (EC) No. 882/2004 (29.04.2004)	VFB, MOSA, MOA, MOE, NIHD, HPI	3	2011	12,425	704
4.3.3.2.1	Mapping and analysis of data and conduct of surveys necessary for assessment of risks	90%	Resources (data, assessments, surveys) necessary for assessment of risks are available.	Regulation (EC) No. 178/2002 (28.01.2002); Regulation (EC) No. 882/2004 (29.04.2004)	VFB, MOSA, MOA, MOE, VFB, NIHD, HPI	Continuous process	2011	18,768	0
4.3.3.3	Identification and mapping of contaminants and sources of contamination; analyses and measures	90%	Information concerning possible links between substances and sources is available, which enables measures for ensuring safety to be taken. The measures taken are justified and aim at reducing the amount of contaminants originating from the environment.		VFB	Continuous process	2009	6834	0
4.3.3.4	Formulation and application of criteria for assessing the load of contamination on food	90%	The load of contamination on food can be assessed – assessment models, indicators and trends have been formulated.	Regulation (EC) No. 178/2002 (28.01.2002); Regulation (EC) No. 882/2004 (29.04.2004)	MOA, VFB	5	2009	2901	0

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4.4	**DRINKING AND BATHING WATER**							3,225,506	3,198,731
4.4.1	Development and implementation of a system of regulations and benefits for reduction of contaminants originating from the environment in drinking and bathing water							3,208,980	3,194,767
4.4.1.1*	Cleaning and arranging of bathing places	50%	Bathing places conform to requirements.	Bathing Water Directive 2006/7/EC	LG				
4.4.1.2	Construction, reconstruction and rehabilitation of public water supply networks	90%	In 2013, 90% of people use public water supply services (77% in 2004).	Operational Programme for the Development of the Living Environment 2013	MOE, LG	9	2005	3,194,767	3,194,767
4.4.1.3	Establishment of structures, on the basis of existing institutions, necessary for assessment of environmental health risks arising from drinking and bathing water	70%	Structures necessary for assessment of health risks arising from water have been established; health risks arising from drinking water have been identified in a timely manner, assessed and removed or reduced.		MOSA, HPI	6	2008	14,213	0
4.4.1.4*	Specification of requirements established with regard to bathing places, as well as the terms and conditions of relevant responsibilities, supervision and monitoring	80%	Requirements established with regard to bathing places conform to the Directive, responsibilities are clear and monitoring is operational.	Bathing Water Directive 2006/7/EC	MOSA, HPI, MOE, LG				
4.4.1.5*	Specification of requirements relating to the quality of drinking water established in the permit for the special use of water, as well as the rules of procedure	90%	The amended permit for special use of water ensures that no water that fails to conform to quality requirements is used as drinking water		MOE, HPI, MOSA, CES				
4.4.1.6*	Specification of the criteria and extent of sanitary protection zones (for reservoirs of drinking and bathing water) in relevant legislation, and application of the criteria	50%	Legislation regulating the extent of sanitary protection zones has been adopted.		MOE, MOSA				
4.4.2	Development of a system for monitoring and publication of contaminants originating from the environment							13,813	3964
4.4.2.1	Identification of the sources of pollution that contaminate surface water and groundwater	90%	An overview of the sources of pollution is available.		MOE, CES, HPI				
4.4.2.2	Development of a public Web-based water information system (incl. bathing water)	50%	The Web-based water information system has been created and is operational.		MOSA, HPI	7	2007	1377	0
4.4.2.3	Development and introduction of new analysis methods and improving the technical basis of laboratories	70%	High-quality analyses of water can be carried out quickly.		MOSA, HPI	6	2008	8316	3964
4.4.2.4	Finding alternatives for consumption of drinking water characterised by excessive radioactivity	60%	Alternatives for consumption of drinking water characterised by excessive radioactivity have been found.		MOE, Radiation Protection Centre, universities	7	2007	4120	0
4.4.3	Preparation of action plans for prevention and prompt elimination of emergencies arising in the environment							0	0
4.4.3.1*	Formulation of instructions for preparation of the emergency plans of entities engaged in treatment of water	70%	The instructions for preparation of the emergency plans have been formulated.		MOE, MOSA, HPI				
4.4.3.2*	Preparation of the emergency plans of entities engaged in treatment of drinking water	70%	The emergency plans have been prepared.		LG, entities engaged in treatment of drinking water				
4.4.3.3*	Preparation of the emergency plans necessary for detection and elimination of pollution of bathing water	70%	The emergency plans have been prepared.		LG, MOE, MOIA				
4.4.4	Increasing the knowledge of specialists and people regarding the safety of drinking and bathing water							2713	0

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4.4.4.1	Preparation and dissemination of media, guidance and informative materials; organisation of informative events for the public at large	50%	Media, guidance and informative materials have been prepared and information is being disseminated.		MOSA, HPI, NIHD	5	2009	2713	0
4.4.4.2*	Formulation and development of a programme of basic and further education of environmental health specialists and teachers	50%	The education programmes have been formulated.		MORE, MOSA, MOE				
4.5	**DISUSED HAZARDOUS SITES**							2,934,220	2,924,864
4.5.1	Development of the legal regulation of the sphere of disused hazardous sites (in conjunction with and subject to the approval of the Ministry of Justice for drafting legislation)							307	0
4.5.1.1	Formulation of proposals for establishment of a legal framework, incl. clearly determined responsibility, for prevention of new disused hazardous sites from occurring and for arrangement and follow-up monitoring of disused hazardous sites	90%	Legislation provides for the terms and conditions of prevention, elimination and follow-up monitoring of disused hazardous sites, as well as restrictions on operating in areas with disused hazardous sites.	COM(2002) 179	MOE	1	2008	307	0
4.5.2	Development of a monitoring and information system for disused hazardous sites and risks accompanying the use of such sites							4590	0
4.5.2.1	Incorporation of a database of inventorying and monitoring disused hazardous sites in the environmental register and publication of the relevant information on the website of the Land Board (free access)	60%	Public information concerning disused hazardous sites is available in the environmental register and on the website of the Land Board.		MOE, EIC, Land Board	Continuous process	2008	4590	0
4.5.3	Formulation and implementation of plans for arrangement of known disused hazardous sites							2,929,323	2,924,864
4.5.3.1	Formulation of plans for elimination and monitoring of disused hazardous sites	70%	The plans have been formulated, incl. the cost of elimination and follow-up management is known.	COM(2002) 179	MOE	Continuous process	2007	4459	0
4.5.3.2	Elimination and follow-up monitoring of disused hazardous sites	70%	Number of disused hazardous sites eliminated: 35 primary disused hazardous sites and 25 other disused hazardous sites by 2013		MOE	Continuous process	2009	2,924,864	2,924,864
4.6	**SAFETY AND PROTECTION OF THE POPULATION**							1,000,748	965,783
4.6.1	Arrangement of the legal framework of prevention of possible emergencies relating to the natural environment, planning of the preparedness for emergencies and elimination of emergencies							18,151	0
4.6.1.1	Specification of the concepts and principles that relate to preparedness for emergencies and arrangement of the relevant legal framework, incl. specification of the responsibilities of different institutions	90%	The concepts and principles have been specified and the responsibilities have been clearly defined.		MOIA, MOE, MOSA	7	2007	4299	0
4.6.1.2	Further development of the emergency risk analysis model for the purpose of efficient ascertainment of emergencies and accidents and assessment of their probability and consequences	70%	Necessary specifications have been included in the methodologies of emergency risk analysis.		MOIA, MOE, MOSA	7	2007	4299	0
4.6.1.3	Formulation of a procedure for preparation of national risk mitigation plans for the purpose of improving the efficiency of actions aimed at the prevention of emergencies	80%	Bases for preparation of risk mitigation plans are available (who prepares the plans, what the plans should contain, etc.).		MOIA	2	2008	882	0
4.6.1.4	Further development of the methodology of territorial risk analyses and linking the methodology with spatial planning	70%	Territorial risk analyses and results thereof are more closely related to the preparation of plans (consideration of danger zones, operating in danger zones, etc.).		MOIA	7	2007	3896	0

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4.6.1.5	Specification of the general principles of notification of the public at large and of the system of early warning; development of that system	80%	The general principles of notification and early warning of the public at large have been specified.		MOIA, MOE	7	2007	3896	0
4.6.1.6	Formulation of the procedure for involving volunteers in the elimination of accidents and consequences of emergencies	50%	The training, safety, insurance cover, etc., of volunteers have been regulated.		MOIA, MOE	2	2008	879	0
4.6.2	Planning of scientific and applied research, and development of a training system in the spheres of preparedness for emergencies, crisis management and protection of the population							0	0
4.6.2.1 *	Identification of the needs for scientific and applied research in the spheres of preparedness for emergencies, crisis management and protection of the population, and conduct of the necessary surveys in cooperation with higher education institutions (e.g. Tallinn University of Technology, Estonian University of Life Sciences, etc.)	70%	The needs for scientific and applied research have been ascertained and the necessary surveys have been carried out in cooperation with higher education institutions (e.g. Tallinn University of Technology, Estonian University of Life Sciences, etc.).		MORE, MOIA, universities and research institutions	6	2008	0	0
4.6.2.2 *	Development of a system for in-service training and basic training in the spheres of preparedness for emergencies, crisis management and protection of the population in schools of general education and in institutions of higher education	70%	The programmes of training in the spheres of preparedness for emergencies, crisis management and protection of the population in schools of general education and in institutions of higher education have been developed and implemented.		MORE, MOIA	5	2009	0	0
4.6.3	Improvement of preparedness for environmental emergencies							982,597	965,783
4.6.3.1	Improvement of the capacity of elimination of marine pollution	80%	The capacity of elimination of marine pollution has been improved (incl. the capacity of elimination of pollution in coastal areas, capacity of sweeping of marine pollution to cover sea area). The objectives, indicators and sub-actions are set out in the Operational Programme for the Development of the Living Environment (clauses 4.2.7.1-4.2.7.2).	Operational Programme for the Development of the Living Environment, HELCOM	MOIA	7	2007	746,591	746,591
4.6.3.2	Improving preparedness for large accidents occurring on land	80%	Preparedness for large accidents occurring on land has been improved (incl. the capacity of elimination of the consequences of natural disasters; capacity of elimination of fires in forests and on landscapes; capacity of responding to industrial and transport fires, and chemical and radiation accidents, etc.). The objectives, indicators and sub-actions are set out in the Operational Programme for the Development of the Living Environment (clauses 4.2.7.1-4.2.7.2).	Operational Programme for the Development of the Living Environment	MOIA	7	2007	219,192	219,192
4.6.3.3	Carrying out various exercises to improve preparedness for environmental emergencies	80%	Exercises have been carried out.		MOIA, MOE	6	2008	8749	0
4.6.3.4	Participation in EU, NATO, UN and other international actions relating to crisis management and protection of the population	50%			MOIA	7	2007	8065	0

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5	**ENVIRONMENTAL MANAGEMENT (MANAGEMENT ACTIVITIES SUPPORTING ALL SPHERES)**							69,793	19,813
5.1	**DEVELOPMENT OF ENVIRONMENTAL MANAGEMENT SYSTEMS**							4237	0
5.1.1	Formulation of the strategy for promotion of environmental management systems 2007-2013	60%	The strategy has been approved.	Regulation (EC) No. 761/2001	MOE	1	2007	587	0
5.1.2	Promotion of the use of environmental management systems, incl. EMAS, adjustment of the systems to various types of organisations, assessment of after-effect, dissemination of results	60%	190 organisations use an environmental management system by the end of 2007, 290 by the end of 2013 (incl. 10 EMAS systems)	Regulation (EC) No. 761/2001	MOE	Continuous process	2007-2013	2060	0
5.1.3	Competition for the title "Environment-friendly Company" (once in 2 years)	40%	Competitions carried out.		MOE	Continuous process		200	0
5.1.4	Development of the EC eco-label system and introduction of eco-labels	70%	Companies apply for the EC eco-label. Consumers' and companies' increased awareness of eco-labels.	Regulation (EC) No. 1980/2000	MOE	Continuous process	2007 (activities started in 2004)	1390	0
5.2	**IMPROVEMENT AND SUSTAINABILITY OF THE SYSTEM OF ENVIRONMENTAL IMPACT ASSESSMENTS AND STRATEGIC ENVIRONMENTAL ASSESSMENTS**							19,547	0
5.2.1	Development, introduction and continuous updating of the environmental impact assessment (EIA) and strategic environmental assessment (SEA) register system	50%	Easy access to information and materials relating to environmental impact assessments and strategic environmental assessments is ensured for the public at large.	Arhus Convention, EIA Directive, SEA Directive	MOE	Continuous process	2010	1969	0
5.2.2	Improvement of the organisation and efficiency of operation of the system of environmental impact assessments and strategic environmental assessments (financing of the work of experts, supervision, analysis of practice, etc.)	60%	Supervision of, and methodological materials for, high-quality and economically unbiased environmental impact assessments and strategic environmental assessments are ensured.	EIA Directive, SEA Directive	MOE	Continuous process	2007	9854	0
5.2.3	Training of persons conducting and commissioning environmental impact assessments and strategic environmental assessments	60%	Persons conducting and commissioning environmental impact assessments and strategic environmental assessment are knowledgeable.	EIA Directive, SEA Directive	MOE	Continuous process	2005	3090	0
5.2.4	Conduct of environmental impact assessments and strategic environmental assessments	70%	Environmental impact is taken into account before any decisions affecting the environment are taken.	EIA Directive, SEA Directive	Ministries, county governments, other local governments	Continuous process		4634	
5.3	**DEVELOPMENT OF INNOVATION IN THE SPHERE OF ENVIRONMENTAL TECHNOLOGIES**							35,113	19,813
5.3.1	Environmental Engineering Innovation Policy (EEI) 2007-2013; formulation of the strategy and tactics; surveys of impact on the environment and social sphere	60%	Surveys carried out.	Decisions leading to the Lisbon process, SE 21, Environmental Strategy, Knowledge-based Estonia, 96/61/EC, 2002/1600/EC and 38/2004/COM	MOE	3	2008 (preliminary work started in 2006)	122	0
5.3.2	Assessment (surveys) of the feasibility of the perspective priorities and concepts of the EEI	70%	Surveys carried out.	2002/1600/EC and 38/2004/COM	MOE	2	2007	581	0
5.3.3	Marketing analysis of the feasible concepts of the EEI and legal analysis of environmentally sustainable public procurements	30%	Surveys carried out.	2002/1600/EC and 38/2004/COM	MOE	2	2007	603	0
5.3.4	Analysis of the results of surveys, assessment of the feasibility of proposals, dissemination of information	50%	Inputs to the roadmap of the Environmental Technologies Action Plan (ETAP) exist and have been made public.	2002/1600/EC and 38/2004/COM	MOE	1; continuous dissemination of information	2008	605	0

No.	Line of action in the Environmental Strategy and the name of the activity	Priority	Outcome pursued (indicators)	Connection with other strategic documents, international agreements, directives, etc.	Responsible entities	Duration of implementation (a)	Starting year	Cost of activity in 2007-2013 (adjusted) EEK thousand	Incl. investment (adjusted) EEK thousand
5.3.5	Preparation and continuous updating of the environmental engineering roadmap (ETAP roadmap)	70%	The ETAP roadmap has been prepared and is updated on an annual basis.	2002/1600/EC and 38/2004/COM	MOE, MOEAC, MORE, other ministries, universities, companies, consultants, developers	Roadmap – 2 years; updating – annually	2007 (started in 2006)	515	0
5.3.6	Carrying out pilot projects, if necessary – establishment of a separate institution and network, supervision and reporting	50%	Number of feasible technologies. Annual reports prepared and submitted to the European Commission.	2002/1600/EC and 38/2004/COM	MOE, companies	Continuous process	2006-2013	24,484	19,334
5.3.7	Achieving sustainable use of resources and reduction of polluting emissions in large-scale production by way of introducing the best available techniques, incl. in the form of soft measures, analysis of results, dissemination of best practices, reporting every three years	80%	An absolute decrease of pollution loads created by companies (indicators of environmental statistics)	Directives 96/61/EC, 2003/87/EC, 2003/35/EC, 2002/1600/EC	MOE, companies	Continuous process	2001	8203	479
5.4	**DEVELOPMENT OF MONITORING MECHANISMS**							5551	0
5.4.1	Development of the system of environmental indicators, elaboration of new indicators	50%	The availability of comprehensive information necessary for improvement of knowledge-based decision processes		MOE	4	2008	5551	0
5.5	**SETTING UP THE SYSTEM OF ENVIRONMENTALLY SUSTAINABLE PUBLIC PROCUREMENTS AND IMPLEMENTATION OF THE SYSTEM IN THE PUBLIC SECTOR**							4422	0
5.5.1	Improvement of management in the implementation of the principles of sustainable consumption in the public sector and environmentally sustainable public procurements, incl. introduction to stakeholders and public at large, identification of top-priority product groups, establishment of guidelines for taking into account environmental and social requirements	60%	Environmental and social requirements, measurable assessment criteria, product catalogues and other tools of environmentally sustainable public procurements are applied to public procurements.	EU Directives 2004/17/EC and 2004/18/EC	MOE, MOF, MOEAC, MOSA, MOIA	3	2006	258	0
5.5.2	Harmonisation of the administrative and analytic capacity used in environmentally sustainable public procurements with the needs of sustainable development	50%	Public sector entities have sufficient administrative capacity for using the tools of public procurements.	EU Directives 2004/17/EC and 2004/18/EC	MOE, MOF, MOEAC, MOSA, MOIA	3	2007	2935	0
5.5.3	Ensuring the availability of environmental and social information concerning sustainable purchasing and consumption in to society of Estonia	60%	The public at large and stakeholders are aware of the principles of sustainable purchasing and consumption, and environmental associations are able to use the opportunities offered by the portal of public procurements.	EU Directives 2004/17/EC and 2004/18/EC	MOE, MOF, OEAC, MOIA	3	2007	88	0
5.5.4	Expansion of the market of environmentally sustainable products by promoting environmental engineering innovation and sustainable product development which contribute to the competitiveness of companies	70%	The entrepreneurial sector has been made aware of the need to promote environmentally sustainable product development, top-priority product groups are represented by a sufficient amount of suppliers.	EU Directives 2004/17/EC and 2004/18/EC	MOE, MOF, MOEAC, MOIA, MOA	3	2007	989	0
5.5.5	Improvement of the organisation of reporting on, collection of statistics (incl. environmental and social information) of, and supervision over, consumption and public procurements arranged in the public sector, incl. updating the register of public procurements	50%	The system of reporting and statistics complies with the terms and conditions established by the European Commission.	EU Directives 2004/17/EC and 2004/18/EC	MOE, MOF, MOEAC, MOSA, MOA	3	2007	152	0

6. INDICATORS FOR THE OBJECTIVES OF THE ENVIRONMENTAL STRATEGY FOR THE IMPLEMENTATION PERIOD OF THE ENVIRONMENTAL ACTION PLAN 2007-2013[2]

6.1. Sustainable use of natural resources and reduction of waste generation

6.1.1 Waste

Objective: By 2030 waste sent to landfills will have decreased by 30% and the harmfulness of waste generated will have been reduced significantly.

Indicators:

Indicators produced for the time being:

- The relative share of separately collected municipal waste in collected municipal waste ↑. Base level: 11%; target level: 30%.
- Generation of hazardous waste ↓. Base level: 7029 thousand tons per year; target level: 6300 thousand tons per year.
- The relative share of recovered waste among all the generated waste, for the following materials: glass, plastics, paper ↑. Base level: 53%, 36%, 45%; target level: 60%, 40%, 50%.
- The ratio of produced energy to waste generated in the energy industry ↑. Base level: 599.1 Toe/kg; target level: 540 Toe/kg.
- Landfilled municipal waste per inhabitant ↓. Base level: 283 kg per inhabitant per year; target level: 230 kg/ per inhabitant per year.

6.1.2 Water

Objective: To achieve good condition of surface water (incl. coastal water) and groundwater, and to maintain the bodies of water whose condition is good or very good.

Indicators:

Indicators produced for the time being:

- The number of wells and springs in which the levels of detected pesticides, nitrates and other hazardous substances exceeds the effective norms (per individual substance) ↓. Base level data are available starting from 2007.
- The content of organic pollutants in effluent ↔↓. Base level: 1399 BOD tons per year; target level: 1399 BOD tons per year.

(As the sewerage infrastructure has not been sufficiently developed yet, the pollution collected in the course of construction of new pipes will actually increase. Therefore, the target is to maintain the current pollution load.)

6.1.3 Mineral resources

Objective: Environmentally sustainable extraction of mineral resources which is sustainable in terms of water, landscapes and air, and efficient exploitation of mineral resources with minimum losses and waste.

Indicators:

Indicators produced for the time being (the target levels will be specified after the formulation of the National Development Plan for Extraction and Utilisation of Oil Shale and the National Development Plan for Extraction and Utilisation of Mineral Resources Used in Construction Industry):

- Mineral resources extraction volume ↔↓:
  Oil shale, base level: 11,310 thousand tons
  Limestone and dolomite, base level: 5760 thousand m^3
  Gravel and sand, base level: 3281 thousand m^3
  Clay, base level: 189 thousand m^3
  Peat, base level: 1074 thousand tons

[2] Explanations of the signs indicating the direction of indicators: ↑ – a greater amount, relative share, etc., compared to now; ↓ – a smaller amount, relative share, etc., compared to now; ↔ – preservation of the current level; ↑↔ or ↓↔ – at first a greater or smaller amount, relative share, etc., compared to now, and preservation of the achieved level later. The names, definitions and units of measurement are available on the website of the Ministry of the Environment at www.envir.ee. Data for 2005 are used as the base level.

6.1.4 Forest

Objective: Balanced satisfaction of ecological, social, cultural and economic needs in the course of utilisation of forests in a very long perspective (longer than the period of 25 years discussed in the Strategy).

Indicators[3]:

To measure the attainment of the objective, a system of balanced indicators could be used which is based on the Improved Pan-European Indicators for Sustainable Forest Management, 2002, and which covers both quantitative and qualitative indicators (the main indicators comprise the amount of forest resources, the viability of forest ecosystems, forest products, biodiversity in forests, management of forests, socioeconomic functions of forests, forest policy, and forest institutions and measures).

Main indicators:

- Forest area, ha ↔. Base level: 2,264,000; target level: 2,300,000
- Growing stock, m^3 ↑↔. Base level: 454,461,000; target level: 460,000,000
- Felling volume, m^3 ↑↔. Base level: 7,012,000; target level: 10,500,000
- Relative share of felling in annual increment of timber (%) ↑↔. Base level: 60; target level: 87
- Growing stock, m^3/ha ↔. Base level: 213; target level: 215
- Area of forests protected as key biotopes, ha ↑. Base level: 11,400; target level: 14,000
- Area of protected forests and protection forests, ha ↑↔. Base level: 694,000; target level: 720,000
- Area of primeval forests, ha ↔. Base level: 575; target level: 750
- Costs incurred for recreation purposes in state forests, EEK ↑. Base level: EEK 25.8 million; target level: EEK 38 million

6.1.5 Fish

Objective: To ensure good condition of fish populations and diversity of fish species and avoid the indirect negative impact of fishing on the ecosystem.

Indicators:

Indicators produced for the time being:

- Fishing (the quantity of fish caught, in tons) ↓. Base level: 98,700 tons of fresh fish; target level: 98,000 tons of fresh fish

6.1.6 Game

Objective: To ensure the diversity of wild game and other game and the viability of populations.

Indicators:

Indicators produced for the time being:

- The ratio of counted and hunted wild game by species ↑
  Wolf – base level: 4.7; target level: 1.5
  Lynx – base level: 8.1; target level: 4.0
  Beaver – base level: 3.0; target level: 2.3
  Roe deer – base level: 5.4; target level: 2.3
  Wild boar – base level: 1.5; target level: 0.5
  Red deer – base level: 13.1; target level: 2.3
  Elk – base level: 2.0; target level: 2.3

6.1.7 Soil and utilisation of land

Objective: Environmentally sustainable utilisation of soil.

There are no measurable indicators at the time.

Objective: Functionality and sustainable utilisation of natural and cultivated landscapes.

Indicators:

Current indicators:

- The relative share of cultivated heritage landscapes among all cultivated land ↑, data available from 2007
- The relative share of land used for organic farming among all agricultural land ↑, base level: 7.1%
- The area and relative share of quarries (sand pits, oil shale quarries, clay quarries, stone pits, etc.) ↓, data available from 2007

[3] The Ministry of the Environment will develop the system of indicators for Estonia in 2006, being based on the pan-European indicators and specifying the criteria appropriate to Estonia. All indicators will have to be complied with.

6.2. Preservation of the diversity of landscapes and biodiversity

6.2.1 Landscapes

Objective: Preservation of multifunctional and coherent landscapes.

Indicators:

Indicators produced for the time being:

- The area and relative share of semi-natural biotic communities in the aggregate territory of Estonia (%) ↑; base level: 20,000 ha; target level: 30,000 ha
- The area of conservation areas (ha) ↔↑, base level: 1,389,677, target level: 1,500,000 ha
- Built-up areas and their relative share in the aggregate mainland area (%) ↓, base level: 1.1% (data of 1993 originating from the last yearbook of the Land Cadastre, need to be reviewed); target level: maximum 1.5%
- The area of swamps and other peat lands and their relative share in the aggregate mainland area (%) ↔, base level: 22.0%; target level: 22% (to preserve the current level)
- The relative share of land not used for agricultural purposes in the aggregate mainland area (%) ↓, base level: 5.5%, target level: 4.5% (recovery of abandoned areas by promotion of extensive agriculture).

6.2.2 Biodiversity

Objective: To ensure the existence of habitats and biotic communities necessary for the preservation of viable populations of species.

Indicators:

Indicators produced for the time being:

- The relative share of the area of threatened habitat types (Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora, Annex I) in the territory of Estonia (%) ↑
- Trends (changes in number) of populations of protected species of the first category ↔.

  Base level: slight increase; target level: preservation of the stability of the current trend
- The relative share of areas regarding which protective restrictions have been established in the territory of Estonia[4] (%) ↔↑. Base level: 18%; target level: 18%
- State resources allocated to nature conservation (% of GDP) ↑. Base level: EEK 2.8 billion; target level: EEK 4.5 billion.

6.3. Climate change mitigation and quality of ambient air

6.3.1 Energy production

Objective: To produce energy in an amount that meets the consumption needs in Estonia and to develop diverse and sustainable production technologies based on different sources of energy, which do not impose a significant burden on the environment and which enable electricity to be produced for export.

Indicators[5]:

Indicators produced for the time being:

- The amount of greenhouse gases emitted in the course of energy production (absolute value) ↔ – the absolute value of greenhouse gas emissions remains on the level of the year 2005.[6]
  CO_2 Base level: 18,532 thousand tons
  CH_4 Base level: 35 thousand tons
  N_2O Base level: 0.14 thousand tons
- Emissions of air pollutants (SO_2, NO_x, PM_x, VOC, heavy metals) in the course of energy production – the amounts of emissions are reduced at least to a level that conforms to EU requirements (tons per year) ↓
  SO2 Base level: 75,696; target level: 47,775 by 2015
  NOx Base level: 43,383; target level: 28,693 by 2015
  VOC Base level: 35,484; target level: 24,008 by 2015

[4] EELIS (Estonian Nature Information System – Environmental Register): Estonian Environment Information Centre

[5] The selection of indicators is based on the internationally acknowledged indicators of sustainable development of energy which have been formulated and accepted both in the EU and on the international level.

[6] In principle, emissions of other pollutants can also be expressed through the same value.

- The relative share of various fuel types in energy (incl. electricity) production (%):
  by 2015 the relative share of oil shale in the production of electricity amounts to less than 90%
  by 2015 the relative share of electricity produced on the basis of renewable energy sources and consumed in Estonia will increase to at least 8%
  by 2020 the relative share of electricity produced in combined heat and power plants and consumed in Estonia will increase to at least 20%

  Base levels in energy production:
  Oil shale 80.1
  Peat 2.2
  Firewood 7.3
  Wood waste, wood bricks and pellets 10.1
  Biogas 0.1
  Hydro and wind power 0.2
  Base levels in the production of electricity:
  Oil shale 91.1
  Peat 0.1
  Oil shale 0.3
  Natural gas 5.4
  Oil shale gas 2.1
  Renewable sources 0.2
  Hydro power 0.3
  Wind power 0.5

6.3.2 Energy consumption

Objective: To slow down and stabilise the consumption of energy, while ensuring that the needs of people are met, i.e. to ensure the preservation of the volume of primary energy while consumption grows.

Indicators[7]:

Indicators produced for the time being:

- Intensity of energy consumption (thousand toe/EEK million) ↓, base level: 0.03 thousand toe/EEK million
- Fuel prices (EEK/ton or EEK/m^3) ↔
  Base levels:
  Coal EEK 939/ton
  Oil shale EEK 127/ton
  Sod peat EEK 365/ton
  Peat bricks EEK 1350/ton
  Oil shale EEK 2761/ton
  Heavy fuel oil EEK 3384/ton
  Light fuel oil EEK 6345/ton
  Diesel fuel EEK 10,017/ton
  Motor spirit EEK 12,337/ton
  Firewood EEK 258/ton
  Wood chips and wood waste EEK 145/ton
- Prices of electricity (EEK/MWh) ↔, base level: EEK 765/MWh
- Energy consumption per unit of GDP (considering the purchasing power parity) – primary energy consumption volume will remain at the level of the year 2003 until 2010. Base level of 2003 and target level: 20.0 TJ per PPP[8].

6.3.3 Protection of the ozone layer

Objective: Phase out of artificial substances used in industry and households which deplete the ozone layer.

Indicators:

- Estonia complies with all obligations assumed with regard to the use, import and export of fluorinated substances which deplete the ozone layer by the designated deadline.

[7] The selection of indicators is based on the internationally acknowledged indicators of sustainable development of energy which have been formulated and accepted both in the EU and on the international level.

[8] PPP – purchasing power parity.

6.3.4 Transport

Objective: To develop an efficient, environmentally sustainable and comfortable public transport system, ensure safe soft traffic (render alternatives of using motor vehicles more comfortable) and develop a settlement and production structure that reduces inevitable commuting traffic and road transport (i.e. to reduce the need for transportation).

Indicators[9]:

Indicators produced for the time being:

- Emissions of CO, NOx, PM10, SOx from transport vehicles ↓ (in thousands of tons); target levels by 2015:
  CO Base level: 48.6; no target level
  NOx Base level: 18.13; target level: 18.5
  PM10 Base level: 1.46; target level: 1.37
  SOx Base level: 1.41; target level 0.42
- Emissions of greenhouse gases (thousands of CO_2 equivalent tons)↓. Base level: 2157; target level: 2000
- Relative share of empty journeys of vehicles in overall transportation (%) ↓. Base level: 21%, target level: 19%
- Passenger turnover of public transport (million passenger kilometres) ↑.
  Base levels:
  Buses (incl. urban transport): 2716 passenger kilometres, target level: 3000
  Airplanes: 1106 passenger kilometres, target level: 1250
  Trains 248 passenger kilometres, target level: 260
  Sea-going vessels: 541 passenger kilometres, target level: 560
- Freight traffic turnover ↓
  Base levels:
  Road transport: 7641 million ton-kilometres, target level: 7500
  Rail transport: 10,639 million ton-kilometres, target level: 10,500
  Sea transport: 1218 million ton-kilometres, target level: 1200
  Air transport: 4 million ton-kilometres, target level: 3.9
- Use of fossil fuels in transport (kg of oil equivalent per inhabitant) ↓. Base level: 387.7, target level: 380
- The relative share of cars older than ten years in the aggregate number of registered passenger cars (%) ↓. Base level: 68.7, target level: 62
- The relative share of population whose nearest public transport stop is farther away than 0.5-1 km (%) ↓. Base level: 10%, target level: 15%
- The relative share of the employed who go to work by foot or use a bicycle to go to work (%) ↑. Base level: 27.2, target level: 32
- The relative share of the employed who use public transport to go to work (%) ↑. Base level: 29.9, target level: 35
- The relative share of the employed who use a personal car or a business car to go to work (%) ↑. Base level: 39.5, target level: 35

6.4. The environment, health and quality of life

6.4.1 Outdoor environment

Objective: Outdoor environment that spares and supports health.

Indicators:

Indicators used for the time being:

- Investments placed in the reduction of noise levels (EEK or % of GDP or per inhabitant) ↑. Base level: EEK 2192 thousand, target level: 2500 (according to prices prevailing in 2006)
- Air pollution (the average number of days in urban regions on which the concentrations of ozone, particulate matter, sulphur dioxide and nitric oxide exceed the permitted level) ↓.
  Base levels (average of four measuring points):
  PM_{10} Base level: 16, target level: 14
  O_3 Base level: 1.8; target level: 1.5
  NOx Base level: 0; target level: 0
  SO_2 Base level: 0; target level: 0
- Rate of deaths caused by respiratory diseases (deaths per 100,000 inhabitants) ↓. Base level: 35.1
- Rate of deaths caused by cardiovascular diseases (deaths per 100,000 inhabitants) ↓. Base level: 685.7
- Number of motorcars per thousand inhabitants (by counties) 365 ↓.

[9] The selection of indicators is based, first of all, on the relevant EEA TERM indicators towards which Estonia needs to develop its transport-related and environmental reporting.

6.4.2 Interior space

Objective: Safe interior space that advances the preservation of health.

Indicators

Indicators to be developed:

- Excess of the limit values established in the standard of indoor radon levels in areas exposed to radon (%) ↓
- Concentrations of radon in interior space do not exceed the recommended values established in various guidelines.
- Indoor climate conforms to indoor climate standards or norms established by legislation: the number of apartments or institutions that fail to conform to standards in relation to the general number of investigated apartments or institutions.

6.4.3 Food

Objective: The content of pollutants in the food chain which originate from the environment does not harm human health.

Indicators[10]:

Indicators used for the time being:

- Non-conformity of food samples to norms (%) ↓, data available from 2007
- Content of certain pollutants in food (%) ↓, data available from 2007

6.4.4 Drinking and bathing water

Objective: Drinking and bathing water does not harm human health.

Indicators:

Indicators used for the time being:

- The percentage of the population covered by water supply network (%) ↑. Base level: 72; target level in cities: 82, in rural areas: 65
- The percentage of factors that negatively influence the quality of bathing water in all samples taken (the percentage of samples in which chemicals, microbiological and other indicators exceed the relevant limit values in all samples taken) (%) ↓, base level: 2.8, target level: 2
- The number of outbreaks of illnesses due to the contamination of water ↔. Base level: 0; target level: 0
- The relative share of population provided with drinking water that conforms to requirements (% of population) ↑.
  Base level 2005:
  Non-conformity as to microbiological indicators (%) – base level: 0.01; target level: 0.001
  Non-conformity as to chemical indicators (%) – base level: 2; target level: 0.2
  Non-conformity as to other indicators (%) – base level: 29; target level: 10

6.4.5 Disused hazardous sites

Objective: All currently known disused hazardous sites will be eliminated by 2030.

Indicators:

- The number of eliminated disused hazardous sites ↑, base level: 75 sites; target level: 43 sites.

6.4.6 Safety and protection of the population

Objective: To ensure the safety and protection of people against risks jeopardising their security.

Marine pollution:

- Sufficient frequency of distant sensory monitoring for detection of pollution in areas characterised by intensive shipping traffic (temporary coverage of marine areas, % of year). Sufficient capacity of pollution sweeping in a marine area of 4.5 m^2 within 24 hours (% of the minimum recommendations of HELCOM).

Disasters on land:

- Sufficient capacity of elimination of floods and storm damage (the capacity of responding simultaneously, % of counties). Sufficient capacity of localisation and elimination of large fires (% of immediate readiness to eliminate fire in the area of up to 50 ha). Sufficient capacity of reacting to industrial and transport fires, chemical and radiation accidents on the level of regions (% of the provision with equipment of Rescue Board units).

Development of a logistic supply necessary for elimination of disasters on the level of regions (% of necessary structures).

Indicators:

Current indicators:

Average wait-time upon receipt of emergency notices at 112 (seconds) ↔↓ Base level: 10

[10] Systemic base data are missing at the moment.

7. MONITORING AND UPDATING OF THE ENVIRONMENTAL ACTION PLAN AND TAKING MONITORING RESULTS INTO ACCOUNT IN UPDATING THE ENVIRONMENTAL STRATEGY

7.1. Monitoring period

The Environmental Action Plan (hereinafter "EAP") has been prepared for the years 2007-2013. During that period, thorough monitoring must be carried out twice – in 2010 (the monitoring period 2007-2009) and in 2013 (the monitoring period 2010-2012), i.e. every 3 years. The second monitoring report must be prepared by 1 March 2013 at the latest, as the data contained in that report need to be used in the process of updating the EAP. The period of monitoring the implementation of the EAP is related to the period of updating the Environmental Strategy (hereinafter "ES"), which is 7 years (to use the data, the monitoring must have been carried out with regard to the previous six years). Reports on carrying out the activities specified in the EAP will be submitted annually for each year.

7.2. Persons carrying out monitoring

Monitoring will be carried out by ministries specified as entities responsible for the implementation of the activities set out in the EAP. The ministries will submit monitoring reports to the Ministry of the Environment by 1 March of the year of monitoring. Being based on the reports submitted by the ministries, the Ministry of the Environment will compile a summary report which will be submitted to the Government of the Republic by 1 June of the year of the monitoring at the latest. The responsible ministries will submit annual reports on activities carried out to the Ministry of the Environment by 1 March of the year that follows the reporting year. Being based on these reports, the Ministry of the Environment will compile a summary report and submit it to the Government of the Republic by 15 June. A separate report on activities need not be submitted in the year that thorough monitoring is carried out.

7.3. Content of monitoring

Three aspects need to be kept in mind when carrying out monitoring:

- The efficiency of the activities specified in the Environmental Action Plan
- The social, economic and environmental effects of the activities
- Progress made in accomplishing the objectives of the Environmental Strategy

The following questions must be answered in the course of monitoring:

1) Are the circumstances and trends in consideration of which the objectives and lines of action of the ES and the activities of the EAP were planned still an issue?
    - The assessment is based on a comparison of the main problems and trends specified in the ES with the essential problems and trends prevailing at the time of monitoring (also taking into account the most important trends and key elements of the currently prevailing scenario).
2) Has progress been made in attaining the objectives established in the ES? Are there any objectives that could not be pursued? If yes, what have been the hindrances?
    - The assessment is based on the objectives established in the ES and the corresponding indicators (targeted development trends).
3) Have the results envisaged for the activities set out in the EAP been achieved or has progress been made in achieving these results? (The assessment will be made annually as a separate report, and once every three years as a component of integrated monitoring.)

- The assessment is based on the *pursued outcome* specified in the tables of the EAP.

4) How have activities specified in the EAP influenced the social, economic and natural environment? Have the activities entailed any sudden and unwelcome consequences (side effects)? What were the activities that have had a significant impact?
   - The assessment is based on the *pursued outcome* specified in the tables of the EAP.
5) What are the socio-economic and environmental effects of lines of action (i.e. sets of activities)? Were these effects rightly predicted?
   - To make the assessment, the actual overall effect of the activities specified under a line of action in the EAP should be compared with the presumed impact of the line of action as set out in the additional table of the EAP titled "Socio-economic impact."
6) Have the selected activities been appropriate to the accomplishment of the objectives of the ES?
   - An overall assessment of the compatibility of the activities is made on the basis of the analysis of answers given under items 1-4 above.
7) Considering the changed situation, the new trends, the compatibility, relevance and impact of activities, should the activities specified in the EAP and/or the objectives established in the ES (or indicators) be altered?
   - In consideration of all of the foregoing analysis, proposals should be made regarding the alteration of activities, removal of activities from the EAP or adding new activities.

7.4. Adjustment of the Environmental Action Plan and the Environmental Strategy on the basis of monitoring results

The EAP will be adjusted in 2013 on the basis of monitoring results. In dependence of the extent of the amendments to be introduced to the EAP, two courses of action can be pursued at the end of the first monitoring period (in 2010):

1) If less than one-third of the activities specified in the EAP need to be altered, the Ministry of the Environment will introduce the amendments to the EAP on the proposals of the ministries responsible for carrying out the activities.
2) If more than one-third of the activities specified in the EAP need to be altered, working groups will be formed on the initiative of the Ministry of the Environment which consist of specialists of the areas of activity that need to be adjusted. The working groups will elaborate proposals of amendments and introduce the amendments to the EAP. In such a case, the Government of the Republic will approve the amended EAP.

Through the monitoring of the EAP, accomplishment of the objectives established in the ES will be monitored, as well. In the case that the monitoring results reveal a need to alter any lines of action or objectives of the ES, working groups will be formed on the initiative of the Ministry of the Environment which consist of specialists of the areas of activity that need to be adjusted. The working groups will elaborate proposals of amendments and introduce the amendments to the ES. The Parliament will approve the amendments of the ES.

8. ABBREVIATIONS USED

EE	Eesti Energia
ACMP	Association of Construction Material Producers of Estonia
GSE	Geological Survey of Estonia
EMS	Estonian Mining Society
EPS	Estonian Peat Society
MORE	Ministry of Research and Education
EIC	Environment Information Centre (of the Ministry of the Environment)
EI	Environmental Inspectorate
MOE	Ministry of the Environment
CET	County Environmental Department
LG	Local government(s)
ERC	Environmental Research Centre
MOC	Ministry of Culture
NCC	(State) Nature Conservation Centre
MOEAC	Ministry of Economic Affairs and Communications
CFPS	Centre of Forest Protection and Silviculture
CG	County Government
NPP	Narva Power Plants
MOA	Ministry of Agriculture
ARC	Agricultural Research Centre
MOF	Ministry of Finance
SFMC	State Forest Management Centre
MOIA	Ministry of Internal Affairs
MOSA	Ministry of Social Affairs
NIHD	National Institute for Health Development
LI	Labour Inspectorate
HI	Health Institute
HPI	Health Protection Inspectorate
TUT	Tallinn University of Technology
UT	University of Tartu
UT MI	Marine Institute of the University of Tartu
VFB	Veterinary and Food Board
VFL	Veterinary and Food Laboratory

9. List of members of working groups for EAP 2007-2013

Working group 1: The environment, health and quality of life	
Juhan Ruut	State Agency of Medicines
Triin Rand	Saue Rural Municipality
Annika Soa	Ministry of Social Affairs
Merle Looring	Häädemeeste Rural Municipality Government
Ants Tammepuu	Sole proprietor
Tuuli Tang	Ministry of Internal Affairs
Siret Tappo	Ministry of Agriculture
Ööle Janson	Ministry of Social Affairs
Jaak Järvekülg	Hendrikson & Ko
Marit Seepõld	Tallinn University of Technology
Kadri Auväärt	AS Kobras
Ilmar Peeter Part	Estonian Green Movement
Tõnu Paasoja	Tartu County Rescue Service
Urmas Uri	AS Kobras
Working group 2: Preservation of the diversity of landscapes and biodiversity	
Henn Pärnamets	Ministry of the Environment
Jaak Tambets	Nature Conservation Centre, non-profit association
Toomas Kokovkin	Research Centre Archipelago, non-profit association
Tõnu Oja	Institute of Geography of the University of Tartu
Marek Sammul	Institute of Zoology and Botany of the University of Tartu
Kalev Sepp	Institute of Agricultural and Environmental Sciences
Working group 3: Sustainable use of natural resources and reduction of waste generation	
Evelin Urbel-Piirsalu	SEI Tallinn Centre
Andres Onemar	State Forest Management Centre (SFMC)
Endla Reintam	Estonian University of Life Sciences
Enno Reinsalu	Tallinn University of Technology
Karin Kroon	Ministry of the Environment
Taavi Nuum	Estonian Green Movement
Ene Kadastik	Ministry of Research and Education
Indrek Tamm	AS Maves
Robert Kiviselg	Ministry of the Environment
Kalev Sepp	Institute of Agricultural and Environmental Sciences
Working group 4: Climate change mitigation and quality of ambient air	
Tõnis Meriste	AS Eesti Energia
Mari Jüssi	SEI Tallinn Centre
Madis Laaniste	Ministry of Economic Affairs and Communications
Ando Leppiman	Ministry of Economic Affairs and Communications
Arvo Tordik	AS Narva Elektrijaamad
Tiit Kallaste	SEI Tallinn Centre
Reigo Lehtla	AS Eesti Energia
Jüri Teder	AS Entec
Working group 5: Environmental management	
Heikki Kalle	Hendrikson & Ko
Ruuta Ruttas-Küttim	Public Administration Development Centre, non-profit association
Maila Kuusik	Ministry of Internal Affairs
Kuido Kartau	Sole proprietor, environmental expert
Joel Valge	AS Alara
Kaarel Relve	University of Tartu
Andres Onemar	State Forest Management Centre
Experts	
Marge Simo	Audacon Eesti OÜ, financial expert
Merle Sagar-Wilkinson	Sole proprietor, financial expert