

**Operational Programme for the
Development of the Living Environment**

Republic of Estonia

CCI number: 2007EE161PO002

May, 2010

1 CONTENTS

1	Contents	2
2	EXECUTIVE SUMMARY	6
3	INTRODUCTION	8
3.1	Nature and underlying basis of the Operational Programme	8
3.2	Preparation process of the Operational Programme	9
3.3	Connections with operations under other operational programmes and national development plans	10
3.4	Involvement of partners	11
4	ANALYSIS OF CURRENT SITUATION	13
4.1	ENVIRONMENTAL PROTECTION	13
4.1.1	Pollution prevention and reduction	13
4.1.2	Use of the environment	21
4.1.3	Environmental management	27
4.1.4	Environmental information, education and awareness	27
4.1.5	Prevention and management of environmental emergencies	31
4.1.6	Environmental supervision	32
4.1.7	Experience with the use of structural instruments in the environmental sector in 2004–2006	34
4.2	ENERGY	37
4.3	REGIONAL AND LOCAL DEVELOPMENT	41
4.3.1	Description of current situation	41
4.3.2	Development needs	47
4.3.3	Overview of policies to date	53
4.3.4	Implementation of the National Development Plan / Single Programming Document 2004–2006	54
4.4	EDUCATION INFRASTRUCTURE	55
4.4.1	Vocational education and training	56
4.4.2	Schools for students with special educational needs	59
4.4.3	Youth work	60
4.4.4	Experience with the use of structural instruments in the education sector in 2004–2006	61
4.5.	HEALTH AND WELFARE INFRASTRUCTURE	63
4.5.1	Health care	63
4.5.2	Social welfare	66

4.5.3	Experience with the use of structural instruments in the field of health and welfare in 2004–2006.....	70
5	PRIORITY AXES	72
5.1	PRIORITY AXIS 1: DEVELOPMENT OF WATER AND WASTE MANAGEMENT INFRASTRUCTURE	72
5.1.1	Justification of need	72
5.1.2	Development of water management	73
5.1.3	Development of waste management	76
5.1.4	Contribution to horizontal themes	78
5.1.5	Major projects	79
5.1.6	Linkages with other operational programmes and strategies.....	79
5.2	PRIORITY AXIS 2: DEVELOPMENT OF INFRASTRUCTURES AND SUPPORT SYSTEMS FOR SUSTAINABLE USE OF THE ENVIRONMENT	82
5.2.1	Justification of need	82
5.2.2	Maintenance of biological diversity.....	82
5.2.3	Development of environmental education infrastructure	84
5.2.4	Development of environmental monitoring.....	85
5.2.5	Improvement of preparedness for environmental emergencies	86
5.2.6	Development of environmental supervision	88
5.2.7	Contribution to horizontal themes	89
5.2.8	Major projects	90
5.2.9	Linkages with other operational programmes and strategies.....	90
5.3	PRIORITY AXIS 3: DEVELOPMENT OF ENERGY SECTOR.....	93
5.3.1	Justification of need	93
5.3.2	Broader use of renewable energy sources and protection of ambient air	95
5.3.3	Promotion of energy conservation in housing	98
5.3.4	Contribution to horizontal themes	99
5.3.5	Major projects	99
5.3.6	Linkages with other operational programmes and strategies.....	99
5.4	PRIORITY AXIS 4: INTEGRAL AND BALANCED DEVELOPMENT OF REGIONS.....	102
5.4.1	Justification of need	102
5.4.2	Development of local public services	103
5.4.3	Development of urban regions.....	104
5.4.4	Strengthening of the competitiveness of regions	106
5.4.5	Contribution to horizontal themes	107
5.4.6	Major projects	108

5.4.7	Linkages with other operational programmes and strategies.....	108
5.5	PRIORITY AXIS 5: DEVELOPMENT OF EDUCATION INFRASTRUCTURE	119
5.5.1	Justification of need	119
5.5.2	Modernisation of the study environment of vocational schools	121
5.5.3	Improvement of the quality of the study environment of schools intended for students with special educational needs (SEN) through developing the relevant infrastructure	124
5.5.4	Modernisation of open youth centres, information and counselling centres and hobby schools.....	125
5.5.5	Contribution to horizontal themes	126
5.5.6	Major projects	127
5.5.7	Linkages with other operational programmes and strategies.....	127
5.6	PRIORITY AXIS 6: DEVELOPMENT OF HEALTH AND WELFARE INFRASTRUCTURE.....	130
5.6.1	Justification of need	130
5.6.2	Development of health infrastructure	131
5.6.3	Reorganisation of state welfare institutions	133
5.6.4	Contribution to horizontal themes	135
5.6.5	Major projects	136
5.6.6	Linkages with other operational programmes and strategies.....	136
5.7	PRIORITY AXIS 7: HORIZONTAL TECHNICAL ASSISTANCE	139
5.7.1	Justification of the need	139
5.7.2	Objectives and indicators	140
5.7.3	Operations to be supported	143
5.7.4	Beneficiaries	144
5.7.5	Linkages with other operational programmes and strategies.....	144
5.8	PRIORITY AXIS 8: TECHNICAL ASSISTANCE.....	144
5.8.1	Justification of need	144
5.8.2	Objectives and indicators	145
5.8.3	Operations to be supported	145
5.8.4	Beneficiaries	146
5.8.5	Linkages with other operational programmes and strategies.....	146
6	FINANCING OF THE OPERATIONAL PROGRAMME	147
6.1	Financing plan for the Operational Programme 2007–2013 – total budget breakdown by priority axes	147
6.2	Financing plan for the Operational Programme 2007–2013 – Community contribution breakdown by year and fund	148

7	Indicative breakdown of funding by category	149
8	Management of the Operational Programme	150
8.1	Coordination between different financial instruments and Operational Programmes	150
8.2	Implementation of the Operational Programme	154
8.2.1	Assuring the separation of duties	154
8.2.2	Managing Authority of the Operational Programme	155
8.2.3	1st level Intermediate Bodies and 2nd level Intermediate Bodies of the Operational Programme and the management of the delegation of duties	157
8.2.4	Arrangements for the project selection	158
8.2.5	Addressing the cost increases of projects	160
8.2.6	Monitoring Committee of the Operational Programme.....	160
8.2.7	Arrangements for monitoring and evaluations	161
8.2.8	Collection and electronic management of data.....	163
8.2.9	Ensuring compliance with state aid rules and public procurement regulations.....	164
8.2.10	Considering horizontal topics	164
8.2.11	Financial management	165
8.2.12	Audit Authority	170
8.2.13	General scheme on reporting irregularities.....	171
8.2.14	Information and communication.....	172
8.3	Ensuring administrative capacity related to the implementation of the Operational Programme.....	173
8.4	International cooperation in the framework of implementing the Operational Programme.....	175
9	SUMMARY OF EX-ANTE EVALUATION OF THE OPERATIONAL PROGRAMME	178
10	SUMMARY OF STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE OPERATIONAL PROGRAMME	183
	ANNEX 1: List of socio-economic partner organisations involved.....	188
	ANNEX 2: An indicative list of Intermediate Bodies by priority axis*.....	188
	ANNEX 3: Implementation scheme allowed for horizontal technical assistance.....	189

2 EXECUTIVE SUMMARY

As a member of the European Union, Estonia takes part in EU regional policy, being eligible for EU structural assistance under the Convergence Objective. The Operational Programme for the Development of the Living Environment 2007–2013 guides the use of the European Regional Development Fund (ERDF) and Cohesion Fund (CF) in the areas of environmental protection, energy, local and regional development, education and health and welfare infrastructure development. The Programme builds on the development plans of the ministries involved – Ministry of the Environment, Ministry of the Interior, Ministry of Economic Affairs and Communications, Ministry of Education and Research and Ministry of Social Affairs – and on the respective sectoral development plans. The Working Groups and Steering Group for the Living Environment Development Operational Programme included representatives from ministries, implementing agencies of structural instruments and social partners (local authority associations, non-profit associations, etc.). The Operational Programme for the Development of the Living Environment has undergone public consultation, ex-ante evaluation and strategic environmental assessment.

The Operational Programme for the Development of the Living Environment encompasses the following priority axes:

1. Development of water and waste management infrastructure
2. Development of infrastructures and support systems for sustainable use of the environment
3. Development of energy sector
4. Integral and balanced development of regions
5. Development of education infrastructure
6. Development of health and social welfare infrastructure
7. Technical assistance
8. Horizontal technical assistance

Operations under the priority axis “Development of water and waste management infrastructure” will be focused on securing a supply of adequate drinking water and on operations contributing to improving the ecological status of water bodies – establishment of water protection infrastructures and clean-up of contaminated sites posing a threat to the state of groundwater. In developing waste management, the main efforts will be directed to decontaminating oil shale waste dumps and constructing new environmentally sound industrial and municipal waste landfills as well as closing and remediation old environmentally hazardous landfills.

The priority axis of water and waste management infrastructure development will be co-financed from the Cohesion Fund in the total amount of EUR 626 334 156.

The priority axis “Development of infrastructures and support systems for sustainable use of the environment” covers a variety of environmental protection operations, including the development of environmental education infrastructure, improvement of environmental monitoring and supervision, preservation of biological diversity and improvement of preparedness for environmental emergencies. This priority axis will be co-financed from the ERDF in the total amount of EUR 92 032 774.

The priority axis “Development of energy sector” will seek to improve the efficiency and environmental performance of the use of energy through supporting, on the one hand, broader use of renewable energy and, on the other hand, energy saving in distribution networks and by final consumers, including the housing sector. This priority axis will be co-financed from the ERDF in the total amount of EUR 87 175 488.

The priority axis “Integral and balanced development of regions” covers three types of operations according to the needs of balancing the regional development of Estonia: development of local public services to improve living conditions in rural regions, alleviation of urban problems and strengthening of regional competitiveness. One of the focuses in all these types of operation will be on promoting cooperation between rural regions and towns. The priority axis of regional development will be co-financed from the ERDF in the total amount of EUR 388 582 823.

“Development of education infrastructure” will focus on modernising vocational education, schools intended for children with special educational needs, open youth centres, information and counselling centres and hobby schools. This priority axis will be co-financed from the ERDF in the total amount of EUR 212 765 713.

The priority axis “Development of health and welfare infrastructure” covers the modernisation of acute and nursing care hospitals and state welfare institutions for children and for people with special psychiatric needs. The priority axis of health and welfare infrastructure development will be co-financed from the ERDF in the total amount of EUR 169 110 222.

Horizontal technical assistance will be co-financed from the ERDF in the total amount of EUR 28 553 498. Technical assistance that is OP-specific will be co-financed from the ERDF in the total amount of EUR 2 759 832.

3 INTRODUCTION

3.1 *Nature and underlying basis of the Operational Programme*

Estonia as a Member State of the EU takes part in the EU regional policy and is eligible for assistance from the EU structural instruments as part of the Convergence Objective. Structural assistance is implemented through operational programmes drawn up in accordance with Council Regulation (EC) No. 1083/2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund (hereinafter: General Funds Regulation).

Preparation of the Estonian operational programmes was set out by Order No. 216 of 31 March 2006 of the Government of the Republic, as amended by Order No. 598 of 19 October 2006 of the Government of the Republic. The operational programmes were drawn up as part of preparing the State Budget Strategy 2007–2013 on the basis of, and for the implementation of, the National Strategic Reference Framework for the use of the EU structural instruments 2007–2013 (hereinafter: National Strategic Reference Framework). The operational programmes are complementary with one another and with the Estonian Rural Development Plan 2007–2013 and Estonian Operational Programme 2007-2013 for European Fisheries Fund, making up an integral whole directed to rapid socially and economically balanced sustainable development of the Estonian economy. The operational programmes form a logical link with the general objectives established in the National Strategic Reference Framework and Community Strategic Guidelines. A more detailed view of the position of this

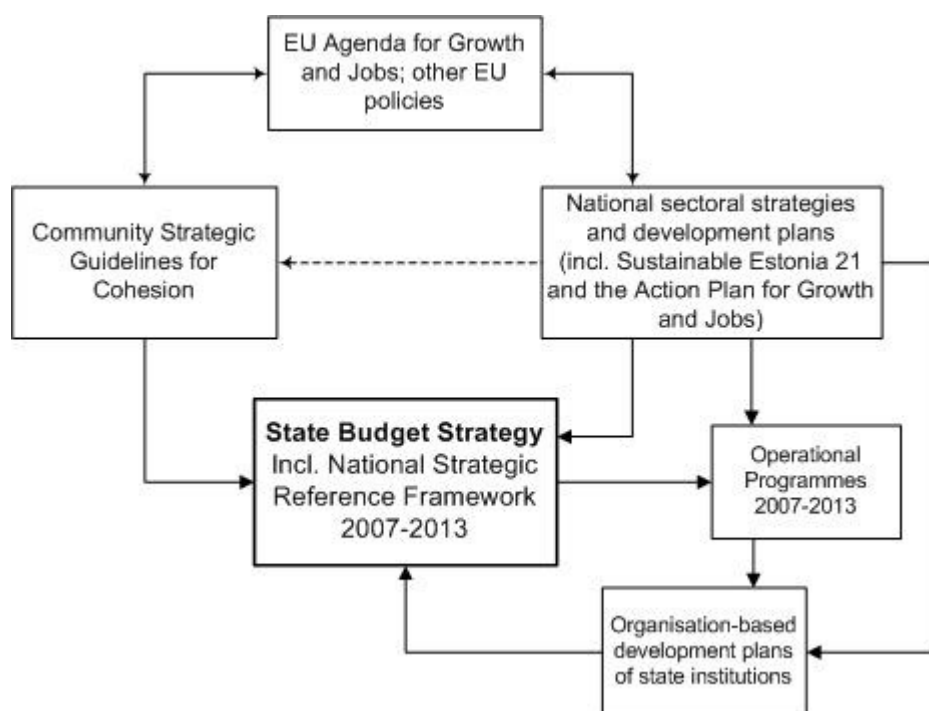


Figure 1. Key underlying documents for the use of EU structural instruments for the programming period 2007–2013

Operational Programme among EU and Estonian development documents is presented in Figure 1.

The Operational Programme for the Development of the Living Environment will guide the use of funds from the European Regional Development Fund (ERDF) and Cohesion Fund (CF) in the areas of environmental protection, energy, local and regional development, education and health and welfare infrastructure development.

The Operational Programme for the Development of the Living Environment builds on the development plans of all ministries involved – Ministry of the Environment, Ministry of the Interior, Ministry of Economic Affairs and Communications, Ministry of Education and Research and Ministry of Social Affairs – and the respective sectoral development plans.

3.2 Preparation process of the Operational Programme

The preparation of the Operational Programme for the Development of the Living Environment was coordinated by the Ministry of the Environment, which was the lead ministry responsible for preparing the Operational Programme in cooperation with other ministries, agencies, organisations and partners involved in its coverage area. The Ministry of the Environment was responsible for analysing the fields of environmental protection and nature conservation and drafting the relevant priority axes. Analysing the field of energy and drafting of the relevant priority axis was the responsibility of the Ministry of the Environment and Ministry of Economic Affairs and Communications. The Ministry of the Interior was responsible for analysing the field of regional and local development and drafting the relevant priority axis, and the Ministry of Education and Research and Ministry of Social Affairs were responsible for analysing the fields of education and health and welfare, respectively, and drafting the respective priority axes.

The Operational Programme was drawn up on the basis of the Guidelines for the Use of Structural Instruments 2007–2013, which were approved by Order No. 216 of 31 March 2006 of the Government of the Republic.

Preparation of the operational programmes was coordinated at the general level by the Ministry of Finance. Preparation of different operational programmes was harmonised and inter-ministerial cooperation organised through an Inter-ministerial Working Group for Operational Programmes. To ensure coordination with other operational programmes, the Working Groups and Steering Group for the Living Environment Development Operational Programme involved ministries participating in the preparation of other operational programmes, and also the Ministry of Agriculture, which is responsible for preparing the Estonian Rural Development Plan 2007–2013 and Estonian Operational Programme 2007–2013 for European Fisheries Fund.

The following working groups were established for preparing the Operational Programme for the Development of the Living Environment:

- Steering Group for Living Environment Development Operational Programme
- Working Group for Programming in the Fields of Environment and Nature Conservation
- Working Group for Regional Development
- Working Group for Education, Health and Welfare

The Working Groups and Steering Group included representatives from ministries,

implementing agencies of structural instruments, social partners (local authority associations, non-profit associations). Involvement of various partners in the Working Groups allowed responsive consideration of their input. The list of social partner organisations involved in the Working Groups and Steering Group is presented in Annex 1.

The Operational Programme was drawn up between March and December 2006 in the following stages:

- presentation of the general framework and first blueprint of the Operational Programme in Working Groups – March-April 2006;
- presentation of the areas of coverage and priority axes of the Operational Programme and the first blueprint of actions planned under the priority axes to Working Groups – April 2006;
- first presentation of Operational Programme to the European Commission – April 2006;
- preparation of the first working version of the Operational Programme; sectoral meetings; submission of comments by Working Groups – May 2006;
- preparation of the first full version of the Operational Programme and its presentation to the Working Groups – June 2006;
- national consultations – July-August 2006;
- second unofficial meeting with the European Commission – August 2006;
- discussion of the results of national consultations and of the meeting with the European Commission with Working Groups – October-November 2006;
- unofficial consultations with the European Commission – November 2006;
- elaboration of the Operational Programme and public disclosure of the elaborated draft – November 2006;
- governmental approval of the Operational Programme – January 2007.

The Ministry of Finance organised the ex-ante evaluation and strategic environmental assessment of the Operational Programme in cooperation with the Ministry of the Environment and other ministries involved.

3.3 Connections with operations under other operational programmes and national development plans

The operational programmes were drawn up seeking mutual complementarity and synergy with other operational programmes and national policies.

The Operational Programme for the Development of the Living Environment covers the fields of environmental protection, energy, regional development, education, health and welfare, being intended to implement the National State Budget Strategy 2007–2013 and the priorities “Sustainable use of the environment”, “Integral and balanced development of regions” and “Educated and active people” under the National Strategic Reference Framework for the Use of Structural Instruments contained therein with support from the Cohesion Fund and European Regional Development Fund.

Improvement of environmental and energy infrastructure under the Operational Programme

for the Development of the Living Environment will create preconditions for business development, which is supported through the Economic Development Operational Programme. The development of education and health and welfare infrastructure will contribute first of all to the operations supporting regional development under the current Operational Programme. The Operational Programme for the Development of the Living Environment is mutually complementary also with the Estonian Rural Development Plan 2007–2013 and Estonian Operational Programme 2007-2013 for European Fisheries Fund, as the reduction of environmental load, maintenance of biological diversity and advancement of regional development are connected also with the implementation of the above plans.

The Operational Programme for the Development of the Living Environment contributes to the Estonian National Action Plan for Growth and Jobs 2005–07, which has been drawn up to implement the Lisbon Strategy. It is also in concert with national strategies and s in the area of the Operational Programme, with the most important among them being the sustainable development strategy “Sustainable Estonia 21”, the Estonian National Environmental Strategy until 2010; Estonian National Environmental Strategy until 2030 (submitted to the Parliament), Estonian National Environmental Action Plan 2007-2013 (submitted to the Government); Estonian Nature Conservation Development Plan until 2035 (in preparation), Estonian Regional Development Strategy 2005–2015; National Spatial Plan “Estonia 2010”; Development Plan for the Estonian Vocational Education and Training System 2005–2008; State Vocational Education Institutions Network Development Plan 2005–2008; Development Plan for the Estonian General Education System (draft), Estonian Hospital Network Development Plan and Estonian Nursing Care Network Development Plan 2004–2015.

More detailed connections with operations supported under other operational programmes and national development plans are presented in the relevant chapters of the Operational Plan.

3.4 *Involvement of partners*

The Operational Programme was drawn up with the involvement of ministries and various social partner organisations involved in the areas covered with the Programme.

In addition to the Ministry of the Environment, the following ministries were directly involved in preparing the Operational Programme: Ministry of the Interior, Ministry of Economic Affairs and Communications, Ministry of Education and Research, Ministry of Social Affairs and Ministry of Finance. The Ministry of Agriculture and Ministry of Culture were involved through the Working Groups. The Working Groups included also various social partners as listed in Annex 1 to the Operational Programme.

The revised drafts of the Operational Programme and other information materials were regularly communicated to the Working Groups. The draft Operational Programme has been available also on the web page of the Ministries of the Environment and Finance. In addition, the Ministry of Finance has also organised the public disclosure of other working and information materials related to programming for the use of structural instruments.

A broader range of beneficiaries was involved through rounds of public consultation. One public consultation round was conducted in July-August 2006. The results concerning acceptance or rejection of the comments received during the consultation round were published on the web page of the Ministry of Finance. The Ministry of Finance has also organised information days to inform the public of programming for the use of structural instruments:

- in June 2006 – National Strategic Reference Framework for the use of the EU

structural instruments; presentation of the first drafts of the Operational Programme and the process of further planning and public consultation;

- in October 2006 – presentation of the results of the public consultation round; presentation of interim results of strategic environmental assessment and ex-ante evaluation; presentation of the current situation and further process of preparing the operational programmes.
- in December 2006 – presentation of the results of strategic environmental assessment and ex-ante evaluation; presentation of the draft operational programmes before submitting those to the Government of the Republic.

A communication plan is being developed for the Operational Programme under the leadership of the lead ministry and in cooperation with other ministries and agencies and partner organisations. The communication plan is being developed in accordance with the Implementing Regulation and on the basis of a communication strategy covering all operational programmes, which is currently being prepared, led by the Ministry of Finance. The first drafts of the communication plans were prepared by the end of 2006. The plans will be submitted to the European Commission within four months after the approval of the Operational Programmes, as required by the Implementing Regulation.

4 ANALYSIS OF CURRENT SITUATION

4.1 ENVIRONMENTAL PROTECTION

4.1.1 Pollution prevention and reduction

4.1.1.1 *Protection of ambient air and mitigation of climate change*

The main polluters of the ambient air in Estonia are power and industrial companies, means of transport and, to a lesser extent, also agriculture. Exceeding of pollutant concentration standards occur mostly in Harju and Ida-Viru Counties, which have a high concentration of industrial enterprises, and in bigger cities, where ambient air pollution is caused by transport.

Although ambient air quality is in general high in Estonia, the country is still a significant polluter of the ambient air given the small size of its economy and small population and therefore needs to cut down its air emissions. The per capita emissions of CO₂ are nearly twice higher in Estonia than the EU average – 14.2 t in Estonia (2004) and 8.5 t in EU25 (2003). Also the per capita emissions of SO₂ are high – 0.07 t in Estonia (2004) and 0.03 t in EU25 (2003). The most important point sources of ambient air pollution in Estonia are the large oil shale based power plants and oil shale chemical industries located in Ida-Viru County.

A significant impact on ambient air quality comes also from transport, which increases e.g. the concentration of fine particles in urban air. The constant growth of the number of vehicles is driving a continuing increase in pollutant emissions from transport, with the sole exception of lead, whose emissions have been decreasing since 2000 due to obligatory use of unleaded petrol. The situation has stayed within the established standards only thanks to a rise in the share of new (cleaner) vehicles and improved fuel quality.

Estonia has been guided in its ambient air protection policy by EU legislation, including the Large Combustion Plants Directive (2001/80/EC), which lays down emission limit values, and Directive 2001/81/EC on national emission ceilings. When acceding to the EU, Estonia was granted a transition period until the end of 2015 for full application of the requirements of the Large Combustion Plants Directive to oil shale fired large combustion plants. According to the EU Accession Treaty, the total emissions of pollutants from all pollution sources into the ambient air may not exceed the following ceilings by 2010: 100 000 t for SO₂ (in 2004 – 89 000 t); 60 000 t for NO_x (in 2004 – 37 000 t), 49 000 t for VOC (in 2004 – 40 000 t) and 29 000 t for NH₃ (in 2004 – 10 000 t). As of 2012, the total permitted emissions of SO₂ from oil shale fired combustion plants may not exceed 25 000 tonnes. As part of the plans at the EU level to further reduce the national emission ceilings, Estonia has prepared the Estonian National Programme for Reducing the Total Emissions of Pollutants from Stationary and Mobile Pollution Sources into the Ambient Air 2006–2015. According to this programme, Estonia will need to reduce, for instance, the emissions of SO₂ by 51.3% and those of NH₃ by 24.4% as compared to 2004.

Timely implementation of the commitments undertaken by Estonia requires enterprises to make great expenditures on technological improvements and procurement of pollution control equipment. The state is directing the reduction of emissions of ambient air pollutants from point pollution sources and improvement of ambient air quality through pollution permits and pollution charges. State investment aid has not been used so far. A significant part of the reduction of emissions and control of their growth is related to the refurbishment of oil shale

fuelled power plants, which has so far been financed from the own resources of Eesti Energia AS (Estonian Energy Ltd.) and credits.

Further improvements in the field of reducing air pollution from transport are expected from switching to low sulphur content fuel in Estonia and efficient and effective implementation of a fuel monitoring system (pursuant to the requirements of Directives 98/70/EC, 1999/32/EC, 2003/17/EC, 2003/30/EC and 2005/33/EC). A reduction in pollutant emissions is expected also from the use of bio-fuels, whose share in transport has to increase to 5.75% by 2010.

The pollution sources located in Northeast Estonia are important sources of transboundary air pollution, affecting the air quality in neighbouring countries. Estonia has joined six protocols to the Geneva Convention and the EMEP monitoring network, which is aimed at receiving constant feedback on the effectiveness of air pollution control measures for the purpose of drawing up and, where necessary, revising the relevant action plans.

Among greenhouse gases affecting the climate, the most important one is carbon dioxide, whose per capita emissions in Estonia are among the highest in the European Union. Estonia has drawn up a National Programme for Reduction of Greenhouse Gas Emissions for 2003–2012 with the aim of mitigating climate change. The programme analyses both the relevant international commitments of Estonia (arising from the Kyoto Protocol) and the policies and measures necessary for fulfilling the commitments. The main international cooperation instruments for Estonia in this field are emission trading and joint implementation, which are regulated internationally by the UN Framework Convention on Climate Change, its Kyoto Protocol and EU legislation, with one of the key pieces of the latter being Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading.

Problems associated with noise in ambient air occur mostly in densely populated areas and in the surroundings of highways, railways and large industrial enterprises. Mapping of noise in bigger cities pursuant to the requirements of the EU Directive 2002/49/EC is initiated. The noise map of Tallinn is due to be completed by 30 June 2007 and those of Tartu and Narva – by 30 June 2012. Noise maps will be drawn up also for railways, bigger ports and Tallinn Airport. Action plans for reducing the level of environmental noise will be drawn up on the basis of the noise maps within a year from their completion. The noise maps and action plans will be prepared by local authorities and owners of the sources of noise.

In summary, the key tasks for Estonia in 2007–2013 in the field of ambient air protection and prevention of climate change are as follows:

- to limit the growth of air emissions resulting from an increasing number of vehicles;
- to reduce emissions from point pollution sources, in particular from the power industry;
- to ensure the conformity of ambient air in Tallinn and in the Ida-Viru industrial region to environmental standards

These tasks need to be solved with guidance from the relevant EU directives and international commitments undertaken by Estonia. In its efforts to ensure positive developments in the field of ambient air protection, Estonia will continue to use mainly legal and administrative instruments. State investment aid will be used in the case of market failures, in particular in relation to improving the environmental performance of the energy sector.

4.1.1.2 *Water use and protection*

In the field of the use and protection of water, Estonia is facing problems with improving the

ecological status of water bodies and securing adequate drinking water for the population.

The ecological status of water bodies is affected first of all by the discharge of inadequately treated wastewater into water bodies, both non-point and point pollution originating mostly from agriculture, and modification of water bodies as a consequence of human activity.

Inadequately treated wastewater is released into water bodies mostly due to worn-out treatment plants and sewage pipelines. Stormwater and soil water get into sewer systems through worn-out pipelines, causing excessive loads to treatment plants, which in turn leads to inadequate performance of the plants. In drier periods, again, wastewater may leak directly into the environment from leaking pipes.

The main sources of agricultural point pollution are large farms whose manure management is not yet in compliance with environmental requirements. The mineral and organic fertilisers used in agriculture constitute the main sources of nitrogen compounds released into water bodies as non-point pollution

Pollution load from point pollution sources fell significantly between 1992 and 2004. A 90% decrease was observed for BOD₇ (an indicator of organic substances), and 58% and 74% for nitrogen and phosphorus, respectively. The data collected in the course of river monitoring in Estonia in 1992–2004 show a declining trend in both BOD and nutrients. This trend – decreasing concentrations of BOD₇ and nitrogen and phosphorus compounds in rivers – has been characteristic of the entire EU region over the last decade. One of the main problems for the entire Baltic Sea, including the Gulf of Finland, is eutrophication, i.e. overabundance of nutrients in sea water and the resulting proliferation of phytoplankton, while eutrophication of lakes has decreased both in Estonia and in Europe as a whole. Phosphorus concentrations in lakes have decreased, as has the share of lakes with a high phosphorus content.

The decrease in pollution load in early 1990s was largely due to a general decline in industrial activity. Further decrease has been connected with modernisation of production and construction and renovation of sewage treatment plants. Estonia has 46 settlements with a pollution load exceeding 2000 population equivalents (p.e.), with 69% of the Estonian population living in these settlements. The attention to date has focused mainly on the construction or reconstruction of public sewer systems and wastewater treatment plants for these settlements. As more than a half of the territory of Estonia are areas of high or very high groundwater vulnerability and groundwater is the main source of water supply for most settlements, solving this task is of vital importance also for securing high quality drinking water. Since 1990, new treatment plants have been built in Rakvere, Tartu, Põltsamaa, Kuressaare, Valga, Rapla, Viljandi and Haapsalu, and the existing ones renovated in Tallinn, Paide, Võru, Sillamäe and Pärnu. Tackling the sources of water pollution is very time consuming and costly in Estonia due to the small and unevenly distributed population density. As of the end of 2004, wastewater collection through public sewerage was provided for approximately 89% of the population of agglomerations of more than 2000 p.e. and 67% of sewage treatment plants were operating in compliance with the requirements. Approximately 72% of the population of the country as a whole is connected to public sewerage.

In spite of the achieved reduction in pollution load, only 65% of all water bodies in Estonia are in a good ecological status (as of 2004).

Achievement of a good ecological status of water bodies is impeded by the fact that many watercourses are blocked by dams. In addition, several natural water bodies have become “heavily modified water bodies” as a consequence of earlier land improvement works (rivers

have been straightened, the water level of lakes lowered, etc.). Many natural water bodies have been destroyed or replaced with artificial water bodies in the course of earth resources extraction and land improvement works. A maximum ecological potential is to be ensured for heavily modified and artificial water bodies.

The status of water bodies has been directly improved over the last decade mainly by maintaining the existing drainage systems. Settled contaminants are removed in the course of dredging of drainage ditches and water conduits are cleaned of sediments. Sedimentation basins and buffering wetlands have been created in several places in the course of restoration works in order to reduce the runoff of agricultural pollutants.

The status of groundwater is generally good in Estonia, with the exception of the Ordovician groundwater body of Ida-Viru oil shale basin, whose status is poor due to a raised sulphate content, minerality, hardness and the presence of hazardous substances (in particular phenols).

The surface water and groundwater of Estonia continue to be at risk from contaminated sites (dumps of waste from the oil shale industry, such as fly ash, semi-coke, etc.; old asphalt concrete factories, waste oil disposal sites), whose remediation requires great expenditures. In many sites there are problems also with the absence of owners liable for the pollution. In these cases the responsibility for clean-up lies with the state. Liability for clean-up of past contamination needs to be further specified in the relevant legislation. It is also necessary to support the creation and development of a public database of contaminated sites and establish a procedure for keeping and updating the database and obligations concerning data delivery. The status of coastal water is affected both by pollution load from land and by marine transport.

As concerns drinking water quality, the main problems in Estonia are connected with excessive iron content (30% of consumers of public water supply) and in places also excessive fluorine content (2.5% of consumers of public water supply). Excessive concentrations have been recorded also for manganese, ammonium, chloride and radionuclides, which are either of natural origin or caused by the poor condition of pipelines. Improvement of the situation will require both the reconstruction of the existing water supply systems and construction of drinking water treatment plants. As of the end of 2004, nearly 77% of the population was consuming water from public water supply. The quality of drinking water in the public water supply system has somewhat improved in terms of microbiological parameters and indicators. There have been no group illnesses from drinking water in the last decade thanks to the measures applied and to national supervision.

In addition to establishing a legal framework, the state is directing water management also through administrative measures (water use and pollution permits) and through direct investment aid. The main beneficiaries of the latter are the local municipal water companies.

The modernisation and construction of water infrastructure facilities has been largely supported by foreign aid, first of all structural pre-accession aid from the EU (Phare National Programme, Phare CBC, ISPA). A project pipeline for the Cohesion Fund has been prepared with technical assistance funded from ISPA. Several procurements were carried out in 2005 for water management projects co-financed from the Cohesion Fund. Rehabilitation works for improving the ecological status of water bodies and works connected with the remediation of contaminated sites are supported from the Water Protection Programme of the Environmental Investment Centre and, since 2004, also from the ERDF in the framework of the Estonian National Development Plan – Single Programming Document for structural aid 2004-2006 (hereinafter: NDP/SPD). Reduction of agricultural pollution has been supported by linking the provision of organic farming support to producers under the Estonian Rural Development

Plan with the fulfilment of environmental requirements. In addition, separate aid is granted for bringing agricultural production into compliance with environmental requirements. Investments in manure storage facilities were supported under this measure during the programming period 2004–2006.

As the area of use and protection of water in the EU is largely regulated by directives, it is of primary importance for Estonia to achieve compliance with the requirements established by the directives.

The central piece of legislation governing the field of water management in Estonia is the Water Act, under which several pieces of secondary legislation have been established. All requirements and obligations established by the EU water legislation have been transposed in Estonia mainly in the framework of the Water Act.

According to the Framework Directive on Water Policy 2000/60/EC, the water bodies of Estonia are to achieve a good ecological status by the end of 2015. Water management activities for achieving a good status of water bodies are organised on the basis of sub-basin water management plans. Water management plans provide a common framework of action to protect and improve the status of aquatic ecosystems and prevent it from further deterioration, promote sustainable use of water, protect the aquatic environment from discharges, emissions and other damages and dangerous substances, in order to achieve a sufficient supply of high-quality surface and groundwater for sustainable and balanced use of water.

As a result of accession negotiations to the EU, Estonia was granted transition periods for the application of the Urban Wastewater Directive 91/271/EEC and Drinking Water Directive 98/83/EEC as the most investment intensive ones among water directives. Collection and adequate treatment of urban wastewater is to be ensured by the end of 2010 in all agglomerations with a population equivalent of more than 2000. By the end of 2013, adequate drinking water has to be ensured for the inhabitants of agglomerations of more than 50 p.e. Implementation of the above two directives requires the reconstruction of old and construction of new sewage treatment plants and drinking water treatment plants, but also the extension of public water supply and sewer systems and reconstruction of worn-out pipelines.

Pursuant to the requirements of the Nitrates Directive 91/676/EEC and based on comprehensive surveys, Estonia has designated the Pandivere and Adavere-Põltsamaa nitrate-sensitive area with the total area of 3250 km². The directive requires also that manure storage facilities be brought into compliance with the requirements (adequate manure storage facilities need to be in place by 2008 in nitrate sensitive areas and by January 2010 elsewhere).

In summary, in the period 2007–2013 Estonia needs to continue tackling the following two main tasks in the field of water management:

- improving the ecological status of water bodies,
- ensuring drinking water of adequate quality for the population.

The courses of development and target levels for both tasks are established by the requirements of EU directives. Achievement of the necessary progress will depend both on public sector investments in developing or renovating the necessary water protection facilities and water supply systems and on bringing our agricultural production into line with environmental requirements. As the responsibility for securing urban water supply and water protection but also for clean-up of contamination and remediation of water bodies lies mainly with the public sector and Estonia is still lagging considerably behind the EU requirements in this respect, water management is the most costly sub-sector among public environmental

investments. Water management problems need to be solved also to reduce the health risks of the population and create preconditions for business development, thus contributing to achieving the objectives of the Action Plan for Growth and Jobs.

4.1.1.3 Waste management

Estonia is one of the world's biggest generators of waste per capita but this is due mostly to our oil shale based power production and oil shale chemical industry. In 2004, Estonia generated 17.5 million tonnes of waste, of which 7.2 million tonnes were classified as hazardous waste and 10.3 million tonnes as non-hazardous waste. Waste from the mining and use of oil shale totalled 12.2 million tonnes, which makes up 70% of the total waste generation. Generation of hazardous oil shale waste (bottom and fly ash, oil shale fuses and semi-coke) totalled 6.9 million tonnes, making up 96% of the total generation of hazardous waste. Per capita generation of municipal waste in 2004 amounted to 449 kilogrammes, which is lower than the respective figure for EU25 (573 kg) but the volumes of municipal waste are increasing.

According to generally accepted principles of waste management, the aim is to prevent waste generation, recover the waste generated as well as reuse them or recover through material recycling or energy recovery. Disposal, including depositing in line with environmental requirements, is the last resort among the accepted options, yet a great share of municipal waste is still landfilled in Estonia without prior sorting and into inadequate landfills. In 2004, 11.5 million tonnes of waste were landfilled. Municipal waste landfilled per capita amounted to 283 kg in 2004, which is higher than the EU25 average (247 kg). Compared to 1999, when 85% of the total volume of municipal waste was landfilled, the share of landfilled municipal waste has been decreasing, making up in 2004 only 65% of the total volume of waste generated.

In order to bring waste management into conformity with the requirements, it is important to put an end to the illegal dumping of waste and littering of landscapes with waste; improve the collection, sorting and recovery of waste; establish new environmentally sound landfills and close old landfills. Great expenditures are needed to remove waste from landscapes. To address these tasks, a National Waste Management Plan was adopted in Estonia in 2002 and the Waste Act was updated in 2004. Waste management plans of the counties and the Biodegradable Waste Handling Action Plan until 2013 (2006) have been drawn up. Approximately 200 inadequate landfills have been closed in Estonia in recent years. As of 2005, there were 24 operating non-hazardous waste landfills in Estonia but only five of them have been built within the last few years and meet the environmental standards. Construction of regional landfills is planned in Southeast and West Estonia. In order to ensure the effectiveness of the investments, the administrative management of waste collection needs to be ensured, public environmental awareness of people enhanced and supervision improved.

According to the EU Directive on the Landfill of Waste, the first priority is to reduce landfilling of biodegradable waste, in particular in the handling of municipal and similar non-hazardous waste. This is also part of the more general requirement of pre-disposal treatment of waste. The following options for pre-disposal treatment are being considered when preparing the revised National Waste Management Plan (completion due in 2007), taking into account the experience of other countries:

- substantial further development of source separation; recycling (incl. composting or biogas treatment) of source separated biodegradable waste; production of refuse derived fuels from certain types of waste for their co-incineration;

- pre-disposal mechanical-biological treatment of waste, which is, in essence, intensive composting with the aim of reducing the volume of waste and environmental impact of landfill (pollution load from leachate, landfill gas); thereafter possibly separation of the combustible fraction from the waste mass and production of refuse derived fuels (incineration is possible e.g. in Kunda Cement Plant, etc.);
- mass incineration of waste (the process generates bottom ash or slag in the amount of 20–25% of the original mixed waste mass, with part of it being usable in road construction, cement production, etc. under certain conditions).

The choice of alternatives will depend on economic circumstances (e.g. mass incineration is a relatively expensive option but whether or not it is justified depends both on the cost of landfilling and the cost of power and heat, etc.) but also on the outcome of the still ongoing discussions on the EU Thematic Strategy on the Prevention and Recovery of Waste, which will determine whether or not mass incineration will at all be regarded as an acceptable recovery operation.

Cost estimations and other important discussions on these key solutions are still underway but the application of a suitable selection of the above measures will be inevitable in any case to reduce the landfill of waste, in particular biodegradable waste. The relevant projects will require substantial investment support.

For developing the handling of municipal and similar non-hazardous waste, it is necessary to develop a network of waste stations. Given the size and population density of Estonia, a network of 80–100 stations will be optimal for the country. At present there are some 20 operating waste stations in Estonia.

Although inadequate landfills have been closed for further landfilling, financial support is needed for their post-closure care. Such structural assistance has been available in 2004–2006 in the form of ERDF co-financing but it has not been actively utilised. Structural support is needed also for constructing new regional landfills. Part of the project documentation for new landfill projects has already been prepared using technical assistance funding from ISPA.

The hazardous waste management system of Estonia has been significantly improved since the beginning of the 1990ies with substantial support of foreign aid, in particular funds from the EU Phare programme. A hazardous waste transfer and reloading centre has been established at Vaivara, a collection centre at Suur-Sõjamäe in Tallinn and state-of-the-art collection stations are planned to be established also in Pärnu and Tartu. The latter are already functioning on the basis of waste management companies but need further technological improvement. At the same time, the ash removal technology of oil shale fuelled power plants is still yet to be reorganised and the existing ash fields closed.

Implementation of a national packaging collection and recovery system pursuant to the EU Directive 94/62/EEC is underway, incl. for beverage containers. The year 2005 can be regarded as the launch of a national collection and recovery system for packaging waste. Three packaging recovery organisations accredited by the Minister of Environment commenced work in 2005 and packaging companies are now able to transfer their obligations of collecting and recovering the packaging of marketed goods and packaging waste to these organisations. New economic instruments have been established to achieve the objectives of the Packaging Act: the obligation of accepting return packaging took effect on 1 May 2005 and a refundable deposit was levied on glass, plastic and metal containers of beer, low-ethanol alcoholic beverages and non-alcoholic beverages. Packaging excise duty, which was formerly imposed only on the packaging of alcoholic and non-alcoholic beverages, was extended on 1 July 2005 to also other sales packaging unless recovered in the amount required by

legislation.

Since 13 August 2005, Estonia has been applying the requirement according to which the distributor of electric and electronic equipment intended for private households has to accept used electric and electronic equipment free of charge on a one-to-one basis as long as the equipment is of equivalent type and has fulfilled the same functions as the supplied equipment.

As the waste management sector in the EU is largely governed by directives, it is of primary importance for Estonia to achieve compliance with the requirements established by the directives. Estonia will not be able to fulfil some of the requirements under the waste management directives by the established deadlines and has therefore been granted transition periods either by the Accession Treaty or separate EU Decisions. Deposition of waste in environmentally non-compliant landfills will be prohibited since 2009 (transition period for Directive 1999/31/EC), which implies that new regional landfills will have to be constructed by that time.

Estonia applied to the European Commission for a derogation under the Directive on Waste Electrical and Electronic Equipment (2002/96/EC) and was granted a derogation by Council Decision No. 2004/312/EC of 30 March 2004, according to which the recovery rate of waste equipment laid down in the Directive, which varies between 50% and 80% of the mass of the equipment depending on the type of equipment, has to be achieved two years later than required by the Directive – by 31 December 2008. A decision of principle has been taken in the Council and Parliament also concerning Directive 2004/12/EC amending Directive 94/62/EC on Packaging and Packaging Waste, allowing Estonia to postpone the achievement of higher recovery targets for packaging waste (to recover at least 60% of the total weight of packaging waste, with 55–80% of this amount to be recovered through material recycling) by 4 years, i.e. until 31 December 2012. This decision has now been laid down in Directive 2005/20/EC of 9 March 2005 of the European Parliament and of the Council.

In summary, the following key tasks need to be solved in developing waste management in Estonia in the period 2007–2013:

- to decontaminate the disposal sites of oil shale processing waste, which continue to pose a threat to groundwater,
- to accelerate progress towards the prevention, reduction and recovery of waste,
- to establish new landfills conforming to the environmental requirements and close and remediate old environmentally hazardous landfills.

The efforts in tackling all of the above tasks need to be directed to achieving the minimum requirements established by EU directives. As the remediation of oil shale waste disposal sites and rapid development of a network of regional landfills and waste stations is possible only with the involvement of national funding, waste management is another most costly sub-sector among public environmental investments next to water management. At the same time, the operations related to prevention of waste generation, promotion of waste recovery and remediation of waste disposal sites constitute an important prerequisite for achieving the objectives of the Action Plan for Growth and Jobs.

4.1.2 Use of the environment

4.1.2.1 *Forest resources*

One of the strengths of Estonia lies in the fact that our forest resources are sufficient both to yield timber and to provide other benefits, and that forest owners are relatively active in managing their forests. The total growing stock in Estonia has been estimated at 456 million cubic metres and the total annual increment – at 12.2 million cubic metres. In the period 1999–2003, the average annual cut has been 11.8 million cubic metres. The forest resource of Estonia has a high potential for the development of bio-energy. Active management of forests has led to the development of a state-of-the-art forest management services sector and the use of novel technologies in forest management. The strong and advanced system of state forest management has supported the development of the entire forestry sector (in particular in terms of providing public services). Cutting has been more intensive in coniferous forests, which puts a pressure on conifer dominated forest types.

The weakness of the sector lies in low profitability. Profitability of forest management is relatively low in Estonia due to natural conditions, not exceeding 5% according to expert assessments. Such a level does not motivate private forest owners to invest in forest land improvement, nor in reforestation. In 2004 the total cutting area was 16 800 ha, of which only 3600 ha were reforested, and predominantly in state forests. Private forest owners prefer to leave their forests to regenerate naturally, which does not ensure sufficient regeneration of valuable coniferous and broadleaved stands because fertile site types, as a rule, regenerate into less valuable broadleaved stands (grey alder). The problem is aggravated partly also by an insufficient system of paying compensation for areas with environmental restrictions (nearly 26% of forest land in Estonia is subject to various conservation regimes). Joint activity of private forest owners is modest and the awareness of forest owners of sustainable forest management is rather low. This is particularly due to the fact that people have become forest owners through the privatisation and restitution of land and forest properties are therefore often small and fragmented (appr. 6.8 ha on the average), the owners live far away from their forest property and forest management is not their everyday occupation. This situation has been constraining effective delivery of public benefits in private forests and causing the low productivity of private forests and investments in them, also increasing the load of state administration (supervision over forest owners with low awareness). In the longer term, this will turn the Estonian forest sector into a non-attractive sector of economy losing its competitive position in terms of new investments, markets and labour.

The Estonian Forestry Development Plan until 2010 has been drawn up to direct and support sustainable forest management and is currently about to be partly updated to take into account the new EU and other international initiatives relevant for Estonia, in particular the EU Forestry Action Plan (in preparation), the Rural Development Strategy 2007–2013, the Action Plan for Bioenergy and the action plan for the ENA-FLEG process. The main aim of the national forest policy is to ensure optimal use of timber, maintenance of biodiversity and sustainable management and competitive profitability of private forests. Other important aims include promotion of multiple use of forests, protection of forest health and wider harnessing of forests for improving the quality of the living environment. Strictly protected forests currently make up 7.2% of the total forest area in Estonia. According to the Forestry Development Plan, their share should increase to at least 10% by the year 2010. The role of forests in ensuring a high quality of the living environment has been continuously increasing in recent years. Water protection forests alone cover 99 400 ha in Estonia and 89 300 ha of forests grow in infiltration areas.

The current state support to forestry has focused on reforestation, counselling of forest owners and supporting their joint activity, but also on remediation of forest damage and establishment of infrastructures (roads, drainage systems). In addition to national support schemes, the development of private forestry has been supported from foreign assistance funds, whose contribution has been increasing year by year. Afforestation of agricultural lands has been supported under the Estonian Rural Development Plan 2004–2006 since 2005 and support to the development of joint forestry activities and more sustainable forest management practices is being provided since 2006 under the Estonian National Development Plan 2004–2006. In addition, payment of compensation to forest owners for income loss and additional expenditures incurred due to environmental restrictions is envisaged for the next programming period both from state budget funds and as part of the support measures under the new Estonian Rural Development Plan 2007–2013.

In summary, the most critical development needs in Estonia in the field of forestry are connected with private forestry. The main tasks for the period 2007–2013 are as follows:

- to ensure an increase in the volume of reforestation in private forests,
- to promote organised joint activities of forest owners and the use of professional counselling services in forest management,
- to halt further deterioration of the condition of roads and drainage systems in private forests,
- to develop and implement competitive market mechanisms for promoting the provision of non-timber benefits of forest.

These challenges are to be met using both administrative and fiscal methods and state support, including financing from the European Agriculture Fund for Rural Development.

4.1.2.2 Earth resources

The most important mineral resource in Estonia is oil shale, whose deposits are located in Ida-Viru County. The economic transition crisis following the restoration of independence led to a fall in demand for oil shale and closure or temporary shutdown of several mines. A subsequent growth in energy demand and a rise in fuel prices on the world market have created a competition for new extraction permits. In 1999–2005, extraction permits were issued for the total of 23.75 million tonnes per year, while the actual production volume in 2005 was 14.51 million tonnes. There is interest, in particular, in extracting the more easily accessible reserves, discarding the ones located in more difficult mining-geological conditions. The amount of environmental restrictions has considerably increased in recent years and the opposition of local authorities and local communities to the issuance of new extraction permits has grown stronger. The main environmental impacts from oil shale mining are related to lowering of groundwater table, landscape degradation due to mining and surface subsidence above underground mines. According to the Earth's Crust Act, mining companies are required to rehabilitate the areas damaged by mining on their own account. Part of the exhausted oil shale mines have been rehabilitated and spoil dumps are gradually beginning to be put into use but the duration of *ex post* liability for mining is insufficient and the possible subsequent after-effects remain for local authorities or the state to remove or compensate for.

Peat is the second most important strategic energy resource in Estonia after oil shale. Well-decomposed peat from the lower layers of bogs is used as a fuel, while the less decomposed peat from the upper layers is used in horticulture. Peat export has grown in recent years. Estonia is the third or fourth largest exporter of peat. Problems with ensuring rational and

ecologically sound use of peat deposits have arisen. According to the State Register of Earth Resources, the nearly 100 peat deposits in Estonia include over 8000 ha of abandoned peat production areas where less profitable layers have been left unmined, or the extraction areas have remained unvegetated since the Soviet time. The natural peat accumulation process does not recover in most cases in these areas and the peat reserve is destroyed through mineralisation, with big quantities of carbon dioxide being released in the process. Unvegetated peat cuttings also present a high fire risk.

The state is regulating the use of earth resources through a legal framework and administrative measures aimed to ensure that our earth resources last as long as possible and are mined in as integrated a manner as possible and with minimal adverse impact on the environment. The new Earth's Crust Act and its 14 implementing regulations took effect in 2005. Also the updating of the list of deposits recorded in the Environmental Register started in 2005 and was completed in 2006. Geological mapping (mapping of new areas) and recording of geological data on modern data carriers, incl. digitisation of the existing geological maps, continues. Preparation of development plans for the use of earth resources has started. The National Development Plan for the Use of Oil Shale 2007–2015 is being prepared (2006) to ensure the sustainable use of oil shale as a strategic resource. The possibilities of setting restrictions on the annual extraction volume and gradually reducing the extraction volumes are being considered in this context. An inventory of abandoned peat production areas with the aim of obtaining detailed information on the location and condition of the areas has started. Annual extraction limits have been established for peat both on county level and for the country as a whole (2.6 million t). Scientific research for drawing up a development plan for the sustainable use and protection of mires and peatlands is about to start. An ecological tax reform has been initiated to ensure more sustainable use of natural resources.

The main task for Estonia in 2007–2013 in regulating the use of earth resources will continue to be to ensure sustainable use of the resources. Both legal and administrative instruments will be used for the purpose. State investments may be used for remediation or reclamation of mined areas in cases where miner's liability can no longer be applied.

4.1.2.3 *Fish stock*

Natural regeneration of fish stock depends first of all on the quality of the aquatic environment and on fishing effort. Water quality has improved in recent years but the spawning grounds of many species have been destroyed by human activity and have not recovered yet. Fish resources are limited by a high fishing effort and blocked migration routes of migratory species, but also by illegal fishing. Fish mortality caused by industrial fishing is high. Sea pollution and climatic changes also have a negative effect on fisheries resources.

Despite the international efforts to improve the status of fish populations, the stocks of several important commercial fish species in the Baltic Sea are in a poor state. Allowable catches have therefore been cut year by year. The total allowable catch (TAC) of internationally regulated fish species of the Baltic Sea (sprat, Baltic herring, cod, salmon) has been showing a general declining trend in recent years. In 2000–2006 the fishing quotas increased only for sprat, whose resource is in a good state. Also the Baltic herring resource of the Gulf of Riga is in a good condition, revealing certain decline in recent years, while the one in the open part of the Baltic Sea has declined to one of its lowest levels ever. However, a trend to improvement can be observed there.

In coastal sea, only the perch resource of Pärnu Bay is in a satisfactory state, having yielded

85% of the total perch catch of the coastal sea in the last three years. The perch resource in the coastal sea of Väinameri Sea and the islands is in poor state. The resource of pikeperch, which is our most valuable export species, has declined in 1995–2000 as a consequence of overfishing. The recovery of fish resources in the coastal area is hindered not only by fishing but also by the rising numbers of cormorants, for whom smaller fish is a food item.

The fish stock of Lake Peipsi is in general in a good condition and reported catch has increased. The problem there is the decreased abundance of cold-water fish species (whitefish, vendace).

The fishery of Lake Võrtsjärv has long been based on eels, which have been introduced into the lake already for decades, and its continuation is therefore largely dependent on the eel protection measures planned in the European Union. While in 1991 the eel catches from Võrtsjärv amounted to 48 t, they have dropped lately and amounted to 17 t in 2005.

Estonia is making full use of its quotas for internationally regulated fish species of the Baltic Sea, except for salmon fishing. Considering the state of fish resources and fishing opportunities, the existing fishing capacity of Estonia exceeds the current available catch. The withdrawal of vessels has been supported from structural aid provided under the Estonian National Development Plan 2004–2006 but the available funds do not cover the entire need for capacity reduction. At the same time, the current system of state regulation of and supervision over fishery has so far not proved efficient enough for detecting and preventing unregistered or illegal fishing. Additional measures for controlling illegal fishing have been introduced into the fisheries legislation to improve the situation. Supervision will be improved also through launching an Internet-based fisheries information system, which will facilitate more systematic and more targeted control. Also the raising of public awareness should be regarded as an important factor in combating illegal fishing. Control of illegal fishing is among key priorities of the Common Fisheries Policy. The Community Action Plan for the eradication of illegal, unreported and unregulated fishing (IUU) COM(2002) 180 final of 28.5.2002 has been adopted.

Fish restocking is organised in Estonia in accordance with the “Programme for restocking the fish species requiring state protection or threatened fish species and the fish resources of the water bodies of Estonia 2002–2010” (approved by the Minister of Environment), and in order to fulfil Estonia’s international commitments under the Salmon Action Plan adopted by the International Baltic Sea Fishery Commission for the protection of the salmon stock of the Baltic Sea. The activities are financed mostly by the Environmental Investment Centre through its Fish Resources Programme. Estonia has to ensure by 2010 the restoration of salmon resources in salmon rivers to the extent of 50% of the river’s natural potential. The aim of the restocking is to increase the population to a limit from which the spawning fish returning to rivers are themselves capable of ensuring sufficient natural regeneration of the resource. Achievement of the objectives is unfortunately hindered by dams built on rivers. According to the available information, there are ca 130 dams on rivers protected as salmonid habitats. It will be feasible to combine the modification or removal of dams and, where necessary, the construction of fish ladders with general rehabilitation projects of water courses.

In summary, the main challenge for the fisheries policy of Estonia in 2007–2013 is to contribute to improving the state of fish resources. This will be done through measures reducing fishing effort and those facilitating the reproduction of fish resources. The necessary investments are expected to be made with support from both the European Fisheries Fund and Cohesion Fund.

4.1.2.4 Biological diversity

Biological diversity is usually characterised through the status of rare and threatened species and their habitats and through the status of landscapes.

Biological diversity is relatively well preserved in Estonia compared to several countries of the central regions of the EU. Estonia hosts significant populations of big game (brown bear, lynx, wolf, etc.). Protected areas cover 16% of Estonia's land area. As of 1 November 2005, there were 5 national parks in Estonia (Lahemaa, Karula, Soomaa, Vilsandi, Matsalu), 80 nature reserves, 116 landscape conservation areas, 186 areas with a non-revised conservation regime and 127 special areas of conservation. In addition, we have 544 protected parks and forest stands and 1172 protected single natural features (as of 1 January 2005). The Nature Conservation Act regulates also the protection of rare and threatened plant, fungus and animal species as well as fossils and minerals.

Estonia has submitted, as a prerequisite to accession to the European Union, a national list of proposed Sites of Community Interest (proposed Natura 2000 sites), which consists of 66 Special Protection Areas (with the total area of 1 236 808 ha) and 509 Special Areas of Conservation (total area 1 058 981 ha) and constitutes a basis for organising the protection of habitats and species under the EU Birds Directive (79/409/EEC) and Habitats Directive (92/43/EEC). The total area of the proposed Natura 2000 sites in Estonia amounts to 1 422 500 hectares. Part of the listed sites located outside the existing protected areas were subjected to temporary restrictions on economic activity by a Regulation of the Minister of Environment so as to ensure the preservation of threatened species and habitats until the sites are designated as traditional nature reserves, special areas of conservation with a less stringent conservation regime, or species protection sites designated for the protection of habitats of species. In order to meet the EU nature conservation requirements, the favourable conservation status of all species and habitat types listed in the Birds Directive and Habitats Directive is to be ensured or, where necessary, restored. One of the prerequisites for this is promotion of nature education and awareness next to the specific restoration and management activities.

Hundreds of wild animals and birds are left in a helpless state in each year as a result of human activity and, pursuant to section 62 of the Nature Conservation Act, it is the task of the Rescue Board and the Environmental Board to help them; the latter is also responsible for arranging rehabilitation of injured or sick animals. In order to facilitate rehabilitation of animals in helpless state, the Environmental Board has established a Wild Animals Rehabilitation Centre in Nigula, Pärnu County. According to the data from 2007, the State Nature Conservation Centre, the predecessor of the Environmental Board, responded to 286 calls and rendered aid to 350 individuals, with 189 individuals being admitted to the centre for treatment. 49 % of the calls were made in the region of Harju-Rapla and 37 % in the region of Jõgeva-Tartu and, consequently, from the viewpoint of saving transportation costs, it would be rational to build additional rehabilitation centres for wild animals in the vicinity of Tallinn and Tartu.

Conservation management documents are being continually updated in Estonia. New protection rules will be drawn up for all sites with a not yet revised protection regime. Management plans will be drawn up for protected natural objects to improve conservation planning. Action plans will be drawn up for achieving or maintaining a favourable status of protected species. The national government and local authorities of Estonia have invested in ensuring visitor opportunities (visitor centres, boardwalks, bird watching towers, etc.), thus extending the opportunities for nature tourism and contributing to nature education and

awareness on the one hand and, on the other, preventing uncontrolled growth of visitor load.

One of the threats to the maintenance of biological diversity in Estonia is the invasion of non-native species. A national programme has been initiated for the control of invasive hogweeds, in particular *Heracleum Sosnowski*.

Landscapes are part of biological diversity. Estonia has high landscape diversity due to the country's location and formation history. The greatest threat faced by the landscapes of Estonia is the threat of being damaged or completely destroyed by the extraction of earth resources and establishment of industries, but also the degradation of disused agricultural lands and, in some regions, uncontrolled building activity.

The unique assets and riches of Estonia include also man-made landscapes developed in a historically changing interaction of man and nature (including, in particular, seminatural landscapes). These are some of the most species-rich habitats in our geobotanical zone but their condition has declined in the last decades. The area of alvars and wooded, alluvial and coastal meadows and wooded pastures has significantly decreased due to the disappearance of traditional agricultural practices (mowing, moderate grazing).

Mires constitute an important part of our natural landscape. Yet unfortunately most of them are no longer in their natural state. Mires once covered more than 20% of the territory of Estonia but 2/3 of them have been either damaged or destroyed by now. While over 70% of raised bog communities have been preserved, nearly 90% of fen communities have been destroyed or have overgrown due to extensive draining.

Over 20% of the total forest area of Estonia is covered with various conservation regimes, with 7.5% of the protected forests being strictly protected. According to the Forestry Development Plan, the share of strictly protected forests has to increase to at least 10%.

Seacoast and the shores of big lakes are very important for Estonia and the length of coastline per inhabitant is one of the longest in the Baltic Sea Region. New threats to coasts and shores have emerged of late in connection with accelerated storm-induced coastal erosion, marine pollution and intensifying real estate development.

Areas of fully prohibited economic activity are exempted from land tax in Estonia in order to ensure their conservation but compensations for the possible loss of income have so far not been applied, which is topical especially for protected forests.

The efforts of Estonia in maintaining the landscape diversity of the country have so far been focused on slowing down the decline of seminatural communities requiring extensive management. Nature management support has been paid since 2001 for traditional management (mowing and grazing) of valuable protected areas, special areas of conservation or species protection sites with the aim of maintaining and restoring seminatural communities of high species diversity. The total of 17 000–18 000 hectares of seminatural grasslands are managed annually with the help of this support. Yet this is not sufficient to ensure continuous management of even only all the seminatural communities located in Natura 2000 sites. Agricultural producers receive support intended for areas with environmental restrictions ("Natura support") under the Rural Development Plan 2004–2006) from the European Agricultural Guidance and Guarantee Fund's Guarantee Section, which helps them, *inter alia*, to continue the economic use of seminatural communities. In the Estonian Rural Development Plan 2007-2013 it is foreseen to extend the EAFRD support to valuable seminatural communities outside the Natura 2000 network.

Concerning other EU instruments, the greatest amount of nature conservation support has so far come from the LIFE-Nature fund, whose co-financing has amounted to 65 million kroons

in 2000–2006. The use of ERDF funds has remained lower than expected. ERDF co-financing has been used for restoring seminatural communities, wetlands and forest habitats. Development needs of nature conservation infrastructure were analysed under a technical assistance project funded from the Cohesion Fund. A project proposal for the management of Natura 2000 seminatural grasslands has been prepared and is planned to be implemented with ERDF co-financing.

In summary, to maintain the biological and landscape diversity in Estonia it will be necessary in 2007–2013 to:

- pay increased attention to the development and application of a balanced system of financial support and tax incentives supplementing the existing conservation measures in order to maintain biological and landscape diversity,
- accelerate the updating of management plans and action plans for the protection of threatened species,
- increase the share of strictly protected forests to at least 10%,
- develop the nature conservation infrastructure and ensure the management of seminatural grasslands in accordance with the above-mentioned plans.

4.1.3 Environmental management

Environmental management is part of general management of organisations, being aimed at solving the environmental issues of organisations in a systematic manner. Environmental management is best organised through environmental management systems, which are the main voluntary instruments for improving the environmental performance of organisations. Environmental management system is part of the general management system of an organisation, encompassing the structures, action plans, defined responsibilities, operations, procedures, processes and resources necessary for implementing and maintaining the system.

Estonian organisations wishing to implement a standardised environmental management system may choose between certification under the internationally recognised environmental management standard ISO 14001 and registration under the EC Environmental Management and Audit Scheme (EMAS). The responsibility for developing the EC Environmental Management and Audit Scheme in Estonia lies with the Ministry of the Environment.

Relatively few standardised environmental management systems have been implemented in Estonia to date – in 156 organisations as of March 2006. The annual growth within the last five years has averaged 30 organisations. Administrative agencies, however, have shown very little interest – only one administrative agency was certified as of March 2006.

The above suggests that it will be important in the coming years to contribute to the implementation of environmental management in public sector institutions of Estonia, which will ultimately increase the application of ISO 14001 and EMAS in Estonia. Development of environmental management in the public sector needs to be integrated into the process of general administrative capacity building.

4.1.4 Environmental information, education and awareness

4.1.4.1 *Collection, analysing and delivery of environmental information*

In order to achieve or maintain a good state of the environment, it is important to monitor and

assess its changes, influencing factors and trends. Environmental data are used as a basis for planning both the socio-economic development and settlement policy (spatial plans, development plans and programmes), for regulating economic activity, establishing restrictions on ownership rights and restricting the freedom of movement. Environmental monitoring is the main source of environmental data. The collection, processing, keeping and disclosure of environmental data is one of the subjects of most international agreements and laws regulating the area of environmental protection.

Although environmental monitoring is performed on three levels pursuant to the Environmental Monitoring Act – the national, local authority and company level, the bulk of information is obtained from the results of national environmental monitoring. Monitoring of the state of the environment under the National Monitoring Programme covers the monitoring of ambient air, groundwater, inland water bodies, coastal sea, soil, forest, biodiversity and landscapes, radiation and seismic monitoring and meteorological and hydrological monitoring. Among others, the monitoring system allows indirect assessment of the effectiveness of environmental investments at the macro level.

Monitoring needs are ascertained on the basis of the nature of environmental problems, international and national legislation and international agreements, in particular the requirements of the Convention on Long-range Transboundary Air Pollution and its cooperative programmes, the Stockholm Convention, EMEP Monitoring Strategy and Measuring Programme, Convention on the Protection of the Marine Environment of the Baltic Sea (HELCOM), Convention on the Protection and Use of Transboundary Water Bodies and International Lakes, Convention on Biological Diversity, Framework Convention on Climate Change and Convention on the Protection of the Ozone Layer along with their protocols, and the requirements under the Ambient Air Protection Act, Nature Conservation Act and Water Act of Estonia.

Monitoring of air, water, soil and biodiversity will be reorganised in near future to meet the new needs and harmonised European requirements. A new reporting system will be launched in 2009 in all fields of monitoring. River basin based water management plans for inland water bodies have to be in place already by 2009, including implementation measures and a monitoring programme providing data comparable across 29 European countries. Reporting to the European Commission is being performed on the basis of water quality indicators from the relevant monitoring programmes.

The reorganisation of monitoring will involve a considerable increase in the volume of environmental monitoring in high-risk areas. This, in turn, will increase the need to introduce new and more sensitive analysis methods for determining pollutants and to strengthen the technical basis of research laboratories for state-of-the-art assessment of the state of the environment. The current equipment and methods do not allow adequate monitoring of radionuclides, heavy metals, pesticides and many organic pollutants to meet the established stricter limit values. It will also be necessary to expand the use of scientific assessment of monitoring results and application of models, which will make it possible to interpolate data from discrete measurements to the entire period concerned and also to forecast the changes in the state of the environment resulting from human activity and climate change.

It will also become important to develop monitoring at the company and local authority level, which is currently used relatively little in Estonia compared to other countries but will be increasingly important in view of the new monitoring requirements. Data from environmental self-monitoring by enterprises on the basis of pollution permits and from monitoring works ordered or performed by local authorities are currently not entered in full into the

Environmental Register. The planned legislative changes will change also the procedure for data transmission. It is also necessary to increase the operational accessibility of data and the application of new IT tools to the Environmental Register and to the entire data exchange. The development of remote sensing methods and their use in the periods between contact measurements will be extended.

More attention needs to be paid to the interpretation and interrelation of data: environmental information cannot thus be limited to just environmental monitoring data, which are often too technical for the public and do not give a broad and integrated overview of the state of the environment, the factors affecting it, the effects on human health and measures to prevent risks or improve the state of the environment. In addition to the Environmental Register and printed State of the Environment Reports, the national environmental monitoring web page will be developed, taking into account broader public interests. See <http://eelis.ic.envir.ee/seireveeb>

In order to enhance the capacity of environmental monitoring in Estonia, it will be necessary in 2007–2013 to:

- improve the legislation to harmonise the collection of monitoring data and ensure timely delivery of data from all relevant institutions;
- elaborate the system of environmental indicators in line with Estonian National Environmental Strategy and Environmental Action Plan;
- automate and improve the existing reporting system to ensure the delivery of the Estonian component of the EU unified reporting system and participate in the work of international monitoring programmes;
- develop coordinated monitoring at all levels of monitoring (national, county, local authority and enterprise);
- update the national monitoring systems for air, water and soil monitoring and integrate the sub-programmes of biodiversity monitoring with Natura 2000 sites;
- create a unified automated information system for organising the collection, exchange and use of data in the Environmental Register by 2008;
- improve the systems for analysing and assessing monitoring results and develop the forms of data disclosure;
- the environmental information gathered as a result of land use accounting, environmental monitoring and the work of the Environmental Register needs to be made available through a unified information system.

Tasks 4–6 are the most investment intensive of the tasks. In their case it will be feasible to combine national financing with structural aid from the EU.

4.1.4.2 *Environmental education and awareness*

Environmental awareness and the underpinning nature education or environmental educations are important supporting factors for achieving any of the environmental objectives. The primary and easiest way to influence environmental awareness is dissemination of the relevant information. Environmental education, in turn, is the way to achieving better and longer lasting results.

Environmental education is provided by pre-school child care institutions, general education schools, vocational schools and higher education institutions working on the basis of curricula

and by institutions and organisations providing in-service training. The spectrum of organisations involved in non-formal nature education is broad but the activities in this field lack consistency due to project-based financing. The capacity for consistent provision of counselling, training and education exists only in bigger centres (Tartu Environmental Education Centre, nature schools of Sagadi and Palupõhja and Pärnu Nature House being positive examples). In Tallinn, nature education is provided to children among other hobby activities by Hobby Centre Kullo and Nõmme Youth House but a separate nature house or environmental education centre that would provide methodological and practical environmental education support to the entire county is absent.

Science centres (Ahhaa Foundation, Estonian Natural History Museum, Zoological Museum of the University of Tartu, Geology Museum of the University of Tartu, Tallinn Technology and Science Centre Energiakeskus, botanical gardens of Tallinn and Tartu and Tallinn Zoo) play an important role in environmental education. These centres have displays aimed at generating interest in nature and various natural phenomena and they are making wide use of discovery training. In addition, a great potential for promoting nature education lies in protected areas and national parks, which have the relevant displays, information materials, rolled out nature education programmes and nature trails.

Most of the institutions providing practical nature education perceive the lack of financial resources as a constraint to their activities leading to the lack of premises, supervisors and teaching aids. Salary fund for a nature education specialist is often absent or the relevant specialists are short of time for systematic engagement in nature education beside their other responsibilities.

The current situation of environmental education is characterised by project-based financing of practical nature and environmental education, mostly through the Environmental Awareness Programme of the Environmental Investment Centre. The priorities of the above programme for 2006 were as follows: (1) environmentally friendly behaviour and sustainable consumption patterns; (2) environmental education and wildlife in the study process; (3) environmental information dissemination and public involvement in the decision making process; (4) encouraging of people to behave in line with contemporary waste management principles. (The priorities will be changed for 2007 to improve the efficiency of implementing the measures under the Nature Conservation Development Plan and Environmental Education Concept: (1) environmentally friendly behaviour and sustainable consumption patterns; (2) environmental education; (3) development work and in-service training in the field of environmental education and (4) environmental information dissemination and public involvement in the decision making process). Environmental education in Estonia still lacks systematic national basic funding. Curricular practical activities (study trips, practical works, observations) are often cancelled due to the lack of funding (lack of possibility to engage an assistant teacher, no funds for transport or teaching aids).

To improve the situation in environmental education, the Environmental Education Concept of the Republic of Estonia has been prepared in cooperation between the Ministry of the Environment and Ministry of Education and Research. The proposals for promoting environmental education and developing intersectoral cooperation in Estonia made in the framework of the above concept and the Nature Conservation Development Plan until 2035 (approved by the Government) will require the integration of the topics of environment and sustainable development into both formal and non-formal education and efficient support from the Ministry of Education and Research.

In the period 2007–2013 it will be necessary to:

- create a coordinated network of environmental education support centres,
- improve the accessibility of environmental information to inhabitants, citizen associations and local authorities,
- extend the possibilities for displaying nature (nature trails, permanent displays, information stands, etc.).

4.1.5 Prevention and management of environmental emergencies

4.1.5.1 *Marine pollution*

Emergencies are specified in the Summary of Risk Analysis for Ministries and Counties 2005 drawn up by the Ministry of the Interior. It is important that the threats that may cause major marine pollution incidents are identified with due consideration of the continuous growth of the volume of goods shipped through Estonian ports, which exerts the greatest pressure on the Gulf of Finland and other sea areas of Estonia, increasing the risk of contamination of the marine environment. The areas with the highest risk are those connected with port activities: Muuga Bay, Tallinn Bay, Paldiski Bay, Kopli Bay and Narva Bay. Considering the recent events in Estonia, the probability of occurrence of marine pollution emergencies is high, i.e. once per 1–10 years, and the possible consequences are estimated as severe or very severe due in particular to their effect on human health and safety, either directly or through the environment and/or the functioning of vital domains. Preparedness needs to be ensured also under international conventions:

- Convention on the Protection of the Marine Environment of the Baltic Sea Region (Helsinki Convention 1992);
- 1990 Convention on Oil Pollution Preparedness and Response (OPRC 1990).

Estonia is preparing a national Marine Pollution Response Plan, which will map the areas and domains to be protected, identify risks and, based on the risk analysis, specify the measures (capacities) required for risk management. Based on the above, the plan will also specify the roles and responsibilities of different ministries and other actors (Ministry of the Interior, Ministry of the Environment, Ministry of Economic Affairs and Communications, companies, volunteers and local authorities) in responding to marine pollution and also describe the main operations in the chain: prevention – detection – clean-up – rehabilitation.

Preparedness for marine pollution is currently insufficient in Estonia in all of the above areas, in particular given the continuing growth in oil product and chemical shipping on the Baltic Sea and Gulf of Finland. The existing equipment of rescue structures is inadequate for detecting, localizing and cleaning up major marine spills. The infrastructure for maintenance and storage of response equipment is absent. For example, the Estonian Border Guard has at its disposal only one oil spill response vessel with a containment tank volume of 115 t of pollutants. The spill containment capacity of this vessel is approximately 0.6 km² of sea area within 12 hours, which is only 13% of the marine area specified in HELCOM minimum requirements. The Estonian authorities are preparing the National Maritime Pollution Response Plan. The Plan's parts I and II that describe maritime response on the strategic level, have been approved by the Government. Part III that deals with operational responsibilities of authorities concerned as well as schemes of communication, lists of equipment, etc., is under creation at the moment, in May 2007. It will serve as a clarifying tool for all Estonian counterparts to the pollution response at the sea and coast as well as a tool for specifying further acquisition of response facilities and equipment.

Marine spill response capacities need to be enhanced by:

- developing marine pollution monitoring capacities in the air and at sea;
- developing marine spill containment capacities – localisation and clean-up of pollution at sea and on the coast;
- developing the pollution sampling system;
- developing the rehabilitation of the living environment – creation of mobile rehabilitation centres, organisation of the relevant training.

4.1.5.2 Other emergencies

According to the “Summary of Risk Analysis for Ministries and Counties 2005”, other emergencies with a high probability of occurrence and severe consequences are natural disasters, major fires and rail accidents.

The most likely causes of natural disasters in Estonia are storms, storm-induced coastal floods and floods due to excessive precipitation (rain, snow). Less likely are national-scale emergencies due to snow (exceptional amount of precipitation and snow storms) or exceptionally high or low air temperatures (heat, frost).

The greatest emergency threat is related to forest fires (forest and bog fires). Other hazards that may cause an emergency situation related to a major fire/explosion are lower – e.g. fire/explosion in an industrial establishment that could present a major accident hazard, fire/explosion in a dangerous chemical storage facility that could present a major accident hazard, leaks in chemical plants.

Accidents involving the transportation of dangerous chemicals by rail represent another important source of risk. A serious emergency hazard is presented by the build-up of hazardous loads in high-density areas. Tanks and wagons with fertilisers and flammable compressed or liquified gases or fluids concentrating in railway stations in wait for passage increase the risk of fires and explosions with severe consequences. In recent years there have been several rail transport related fires and other accidents that remained without serious consequences just by a lucky fluke. Also the existing worn-out rolling stock may cause accidents involving a direct threat to human health and safety and the surrounding environment.

The capacity of rescue structures for localizing and managing the above-mentioned major accidents needs to be improved both in terms of inter-institutional cooperation and in terms of technical equipment.

The following capacities need to be developed:

- capacities for rescue operations in the event of major accidents: procurement of modern rescue equipment and means for commanding major rescue operations;
- capacities for rescue operations in the event of industrial and transport accidents – procurement of equipment for rescue operations involving dangerous substances (chemical and radiation protection equipment), for removing pollution and training personnel.

4.1.6 Environmental supervision

Environmental supervision is exercised by the Environmental Inspectorate, Land Board and

local authority bodies or agencies. Proceedings for environmental offences are instituted and penalties imposed, to a limited extent, also by other agencies: police prefectures, Border Guard Administration, Tax and Customs Board, Rescue Board, Maritime Administration, Health Protection Inspectorate, Technical Inspectorate, Veterinary and Food Board and Plant Production Inspectorate.

The Environmental Inspectorate (EI) is the only agency in Estonia performing supervision in all fields of environmental protection. Being the leading supervision agency, the Environmental Inspectorate is responsible for a broad range of duties:

- to check the legality of the use of natural resources
- to check the legality of activities affecting the environment
- to terminate or suspend illegal activities affecting the environment
- to request and check the application of mandatory environmental protection measures
- to institute proceedings for environmental offences, incl. make decisions in misdemeanour matters as a body conducting extrajudicial proceedings
- to perform urgent procedural acts in criminal matters.

The Land Board exercises environmental supervision by checking for adherence to land use, land readjustment and land accounting requirements.

Supervision at the local authority level consists in checking for adherence to environmental decisions established by the local authority council and for compliance with the requirements of the Nature Conservation Act, Earth's Crust Act, Waste Act and Packaging Act. Local authorities may be assigned also additional environmental supervision duties by law.

The success of environmental supervision is largely dependent on cooperation between different agencies. EI as the central environmental supervision agency has the key role here. Cooperation has been developed in three directions: cooperation with other state agencies authorised to exercise supervision, cooperation with environmental management agencies and with local authorities. National environmental supervision has a significant role in supporting the development of environmental supervision by local authorities. Next to day-to-day cooperation and guidance, the EI has been carrying out environmental supervision training for the environmental protection staff of local authorities since 2004.

EI consists of a central office and seven regional offices, with county offices subordinated to the latter. As of the end of 2006, the EI staff numbered 237, with 160 of them being directly engaged in supervision.

Environmental supervision has become more efficient year by year. The number of environmental offences detected and amount of damage have decreased. The number of recorded offences has decreased from 7,052 (2002) to 4,342 (2006). The amount of damage has decreased from 126.7 mln kroons to 25.2 mln kroons for the same period

The highest numbers of offences have been recorded in the fields of fisheries, landscaping and earthworks, waste handling and forest use. The assessed monetary value of environmental damage has been highest in cases involving the violation of requirements of forest use and nature conservation.

Even though the capacity of supervision agencies has increased, their activities are still not systematic and effective enough. As the number of offences has been high, EI has so far focused mainly on the detection of offences, while a systematic approach would require

considerably more attention to solving the problems underlying environmental offences in cooperation with the issuers of environmental permits and environmental management authorities.

As concerns technical equipment, are related to sampling and analysing equipment necessary for obtaining rapid results with the aim to assess the need for and scope of necessary response activities. For more rapid and adequate response to violation, upgrading and interrelating of the existing databases is necessary as well as creating of mobile workstations for environmental inspectors enabling wide and flexible use of databases (in addition to the databases of the Environmental Inspectorate, databases containing information on e.g. environmental permits, changes, etc.). During field inspections, there is often need for rapid enquiries from databases which would enable to save time, speed up the control procedures and processing of violations, and to optimise work load in the conditions of lacking resources.

For improvement of supervision efficiency, the construction of the supervision operational management and training centre of EI is of critical importance. In order to achieve rapid response to environmental violations and prevention of violations, the collection and analysis of information is among the most important activities. In the near future, further increase of information flows is forecasted – for processing these flows, data processing, forwarding and analysing needs to be channelled through one centre. It is feasible to also provide training rooms and up-to-date facilities at this centre with the aim to upgrade and maintain the qualifications and skills of the environmental inspectors.

In summary, the main tasks in improving the efficiency of environmental supervision are as follows:

- development of cooperation with other state agencies and local authorities in preventing and detecting environmental offences and specifying boundaries and roles
- specification of legislative and regulatory provisions and conditions of environmental permits
- strengthening of the technical basis of EI and other supervision agencies. In particular, the technical basis for sampling and primary analysis of samples in the case of violations related to water and ambient air environment
- development of existing databases of EI; providing interconnectivity with other relevant databases; increasing efficiency of data analysis and processing
- creating of mobile inspector workstations with the aim to improve information exchange and optimise control processes/procedures
- construction of a supervision and training centre with the aim to improve data management and upgrade/improve the qualification and skills of inspectors.

4.1.7 Experience with the use of structural instruments in the environmental sector in 2004–2006

In 2004–2006 the environmental sector of Estonia has been using the funds of the Cohesion Fund (CF), European Regional Development Fund (ERDF) and European Agricultural Guidance and Guarantee Fund (EAGGF) Guidance Section.

CF financing has been used on the basis of an indicative project pipeline based on the Reference Framework for the Cohesion Fund in the environment sector 2004–2006. The

following problems have been encountered in implementing CF projects:

- multi-level control of projects, contrary to the purpose of its establishment, is not expedient because responsibility gets dispersed between different control agencies and the shortcomings of projects may remain inadequately identified;
- the skills of beneficiaries are insufficient for implementing large-scale projects.

Both of the above circumstances cause delays in procurements. Overheating of the construction market raises the prices of pipelined projects and leads to failed procurements. The subsequent repeated procurements, in addition to slowing down substantive progress, lead also to an additional rise in project costs. The latter, in turn, reduces the physical volumes of programme implementation and impairs the co-financing of projects by applicants.

ERDF co-financing is used for projects falling under Measure 4.2 of the NDP/SPD – “Development of environmental infrastructure”. This measure was planned with a relatively small total volume, which in turn is divided between individual sub-sectors and implemented through an open application procedure. The following problems have occurred in implementing the measure and should be taken into account when programming operations for 2007–2013:

- the upper limit for support per one applicant established due to the small scale of the measure allows more applications to be funded but has led to a situation where several projects with a greater potential effect remain unfunded. In the sub-sectors of water and waste management there is a “gap” between the largest projects financed through the NDP/SPD and those financed from the CF. Consistent implementation of regional water management plans and waste management plans is therefore impaired;
- given the small scale of the measure, the use of only the open application procedure causes many applicants to give up because their chances of receiving support are small even for high-level projects;
- the use of only open application makes it hard to predict the interest of applicants by individual sub-sectors and the results may therefore differ from those predicted. An implementation procedure based on the activity of applicants is not favourable for systematic implementation of regional plans and achieving the resulting synergy.

The EAGGF Guidance Section has been providing support in 2004–2006 to Measure 3.7 of the NDP/SPD – Forestry. In the upcoming period, however, the activities in this field will be carried out under the Estonian Rural Development Plan 2007–2013 and therefore this measure needs not be addressed here.

The above leads to the following conclusions for consideration in implementing structural instruments in the coming programming period:

- the implementation procedure of CF projects needs to be considerably simplified and the responsibility of different actors more clearly localized. It is advisable to support the beneficiaries by preparing guidelines for them and organising training for raising their administrative capacity;
- measures to counterbalance the negative effects of the increasing costs of CF projects need to be established by secondary legislation;
- when selecting projects for implementation with ERDF co-financing, it would

be expedient to combine the use of open application rounds, which is the only possible way to involve the non-profit sector and local authorities into solving environmental problems, with project pipelines, as systematic implementation of regional and sectoral plans is more expedient through the latter;

- to consider increasing differentiation in applicant's share of funding according to the nature of project and economic situation of the applicant.
- The listed conclusions will be taken into account at the suitable level of implementing systems and structures. Measures to prevent or alleviate the impact of price inflation are outlined in section 8.2.4.

4.2 ENERGY

Domestic sources of energy account for a large share in the Estonian energy resources and primary energy balance, being largely based on oil shale. The main positive aspects of massive use of oil shale are energy supply security of the country and low price-dependence on the world market, while major environmental damage incurred both in mining and in the use of oil shale and low calorific value of oil shale stand out on the negative side.

The share of oil shale in primary energy balance is strongly influenced by the export volume of electric power and shale oil – the bigger the export volumes of electricity and oil the greater the share of oil shale in the primary energy balance. In 2005, Estonia's net export of electricity amounted to 15.8% of the total production of electricity and 60% of the total production of shale oil was exported. The production of electricity decreased by approximately 1% in 2005 compared to 2004, while shale oil production increased by approximately 5%.

Primary energy supply in 2005 amounted to 216 PJ, of which oil shale made up approximately 61% and firewood and peat together made up 12%.

Energy efficiency in Estonia is low. This is mainly due to the lack of big hydropower stations and the fact that over 90% of electric energy is produced in condensing power stations, whose efficiency is ca 30%. The efficiency of the energy sector is further decreased by losses in power and district heating networks, low share of combined heat and power production and export of converted energy (electricity, shale oil and coke, peat briquettes, wood chips).

The energy intensity of gross domestic product (ratio of primary energy supply to GDP) has considerably decreased in Estonia, remaining for the first time below 1000 toe¹ per million euros (1995) in 2005. However, according to the data of both Eurostat and the International Energy Agency, Estonia is still lagging considerably behind the EU average level as well as the level of neighbour states with a comparable climate in terms of this sustainable development indicator. This is due primarily to the low level of our GDP.

The energy intensity of the GDP of Estonia and the primary energy efficiency in Estonia show a great potential for increasing energy efficiency. More attention should therefore be paid on the national level to controlling the growth of energy consumption and promoting energy efficiency and energy conservation by final consumers in all sectors of the economy. More effective measures for achieving energy conservation need to be designed as part of the actions under the National Target Programme on Energy Conservation.

A fall in housing quality due to the depreciation of the housing stock of Estonia, the rise of residence costs and the obligations resulting from the European legal environment have led to the emergence of the issue of improving the energy efficiency of the housing stock. As 70% of dwellings of the Estonian housing stock are located in block houses constructed between 1960s and 1980s, this part of the housing stock requires particular attention from the point of view of energy efficiency. As the Estonian housing stock has reached the limit of its useful life and is both physically and morally worn-out, average energy consumption per square meter is higher in the residential buildings of Estonia than in other EU member states. The relevant indicator value for Estonia is approximately 250 kWh/m² and below 150 kWh/m² for

¹ Tonnes of oil equivalent

Finland and Sweden. The price of district heating in Estonia averages 422 kr/MWh. According to expert assessments, proper reconstruction and renovation of a block house can yield, on an average, a 20–30% energy saving, which may mean an annual financial saving of up to 0.5 billion kroons for Estonia as a whole. The main problems in the housing sector are related to excessive energy consumption of buildings, insufficient energy mapping of buildings, the lack and uneven competence of energy auditors and losses in the transmission and distribution of energy.

Energy sector is a national strategic sector that has to ensure supply security and reliability in the production, transmission, distribution and consumption of electricity at lowest possible prices of production, transmission and distribution. The efficiency of the power system has to ensure the sustainability of the energy sector and adequate supply quality for maintaining and increasing the competitiveness of the Estonian economy and welfare of the population. In addition, the power sector has an important role in ensuring regional development through employment.

Although power production capacities in Estonia are sufficient to meet the current needs, the structure of the production capacities is not rational considering the needs of the system (there is a lack of quickly adjustable production capacities for covering peak loads and power production is overly concentrated) and depreciation of the capacities is resulting in increasing costs and lower reliability. Of the existing power production capacities, only the two new fluidized bed combustion blocks of Narva Power Plants, the Iru Power Plant and some micro power plants can be kept in operation as of 2016 but the production potential of these amounts to approximately 25–30% of the current output.

In recent years, big investments have been made to meet the ever more stringent environmental requirements, achieve energy saving and increase supply reliability. Two power blocks of Narva Power Plants have been converted to circulating fluidized bed combustion for that purpose and the converted blocks were officially commissioned in 2005. The fluidized bed technology allows a significant reduction in emissions and reduces the amount of oil shale needed for power production. Investments in the renovation of transmission and distribution networks will reduce system losses and ensure full renovation of power networks within 30–40-year periods. The supply security of Estonia will be further increased by the 350 MW submarine direct current cable installed between Estonia and Finland. Realisation of the project makes it technically possible to export and import electricity between Estonia and Finland. The technical possibility of supplying energy from the Finnish power system to Estonia (to the region with the highest energy consumption in Estonia) and vice versa in the event of emergency situations is of vital importance and significantly improves the supply security of Tallinn. The cable was commissioned in 2006.

As of 2005, 16 combined heat and power stations were operating in Estonia, generating 10% of the total supply of electricity. The use of renewable sources of energy for power generation is rapidly increasing. In 2005, there were 22 hydropower stations and 7 wind farms supplying electricity to the power network, accounting for nearly 0.7% of the total electricity production. The amount of electricity produced from wind increased sevenfold compared to 2004.

The main weaknesses of the power sector lie in the high environmental cost of power production and concentration of production in a single geographic region. In addition, power production depends mostly on a single and non-renewable source of energy – oil shale, which cannot be a competitive source of energy in the long term due the associated high environmental costs. Oil shale has a considerably higher environmental impact compared to

renewable fuels or other fossil fuels due to its lower calorific value, relatively high sulphur content and extremely high ash content. Production of electricity from oil shale is therefore environmentally much more damaging compared to other fuels. Therefore the production of 1 kWh of electricity in Estonia generates, on the average, 1.18 kg of carbon dioxide, while the same indicator reflecting the environmental impact of power production is 0.96 kg for Poland, 0.46 kg for Germany, 0.34 kg as the EU average and merely 0.03 kg for Sweden, for example. Also the emissions of other pollutants from oil shale based power production are higher compared to other fuels and technologies. Additional significant environmental impact comes from oil shale mining.

Expansion of the use of renewable sources of energy is often inhibited by low profitability of renewable power production, availability of biofuels, low hydropower potential and limited possibilities to balance the fluctuations of wind energy due to the structure of power production capacities (lack of quickly adjustable power production capacities in Estonia).

In view of the future needs of the system and environmental considerations, the structure of the production capacities of Estonia needs to be rationalised through investing in distributed power production and diversification of the resources used. This will require that renewable sources of energy be increasingly introduced on the market and that the focus be on the introduction of new technologies and on innovation. Setting of national power technological priorities and establishment of a proper education system to support the priorities will contribute not only to technological development but also to efficient technology transfer.

Changes in the Estonian society over the last decade have caused changes also in the heating sector. Heat production has fallen approximately 2.4 times compared to 1991 and has stabilised at the level of approximately 10 TWh per year. In 2005, 41% of heat was produced from gas, 21% from wood and 13% from liquid fuels. Local heating is based on wood and peat briquettes to the extent of approximately 75% and the rest is based mainly on natural gas. The share of natural gas in heat production has decreased compared to 2004, while the use of wood for heat production has undergone the greatest increase – more than 10%.

The heating sector has so far been dominated by district heating, which makes up over 70% of all heating. About one third of district heat is produced in combined heat and power plants. However, the district heating networks (and also production facilities) are in a poor technical state in many areas. This diminishes the advantages of the use of district heating and provides an incentive to switch to local heating, which is often an inefficient solution in terms of the regional heating system and lowers the potential for combined heat and power production.

Key bottlenecks in the Estonian heating sector lie in significant losses and the fact that heat networks are inconsistent with current consumption. The average calculated loss is estimated at more than 15% (approximately 6% in Finland). There is a significant potential for energy conservation in the generation, transmission and final consumption of heat.

Considering the above, the maintenance and development of district heating networks is a national priority, helping to expand the co-generation of heat and electric power and reduce the environmental impact of heat supply.

The sectoral education system and research and development activity certainly constitute a foundation for the development of the energy sector. Education and research and development activity in the field of power technologies have a considerable industrial potential and long research history in all major research institutions. The relevant education and research structure, however, is outdated and incapable of providing sufficient support in modernising the energy sector. In order to ensure the sustainable development of the energy sector of Estonia and create possibilities for substituting oil shale with alternative sources of energy in

future, it is important to invest in high quality education and research and development in the field of power technologies.

The main needs in the period 2007–2013 in developing the energy sector and improving its supply security and environmental performance are as follows:

- to rationalise the structure of power production capacities (distribution; covering of peak loads)
- to increase the share of co-generation of heat and power
- to increase the share of renewable energy
- to promote energy conservation in production, networks and final consumption.

Estonia is directing the developments in the energy sector at the national level mostly with fiscal and administrative instruments and the economic possibilities of the state owned Eesti Energia Group, which owns most of the oil shale mines, power production capacities and transmission and distribution networks in the country.

4.3 REGIONAL AND LOCAL DEVELOPMENT

4.3.1 Description of current situation

The spatial structure of the Estonian society is transforming. While only 15 years ago a substantial part of labour force in rural areas was occupied in agriculture, the share of this sector has dropped by now (see Figure 2). Despite a multitude of new jobs generated in other economic sectors (forestry, tourism, services), rural areas are characterised today by a relatively low employment rate (see Figure 3).

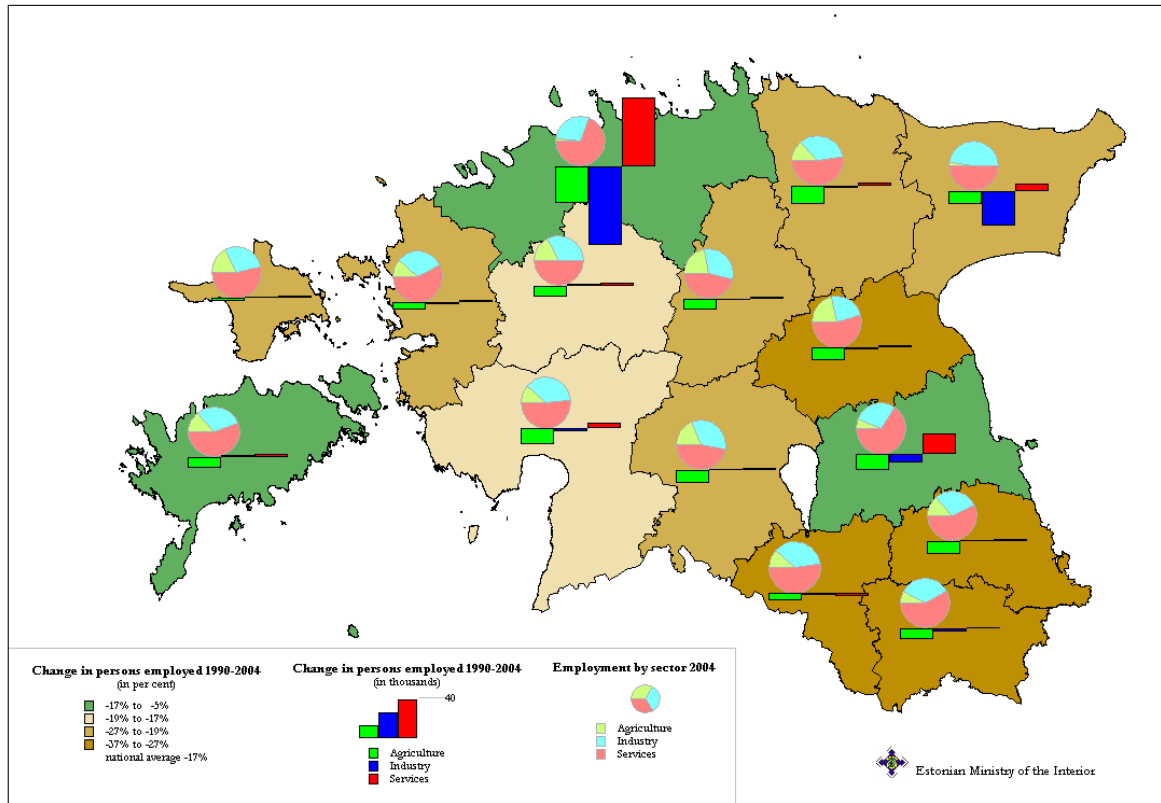


Figure 2. Changes in employment structure 1990–2004.

Source: Ministry of the Interior on the basis of data from the Statistics Estonia

Regional differences in welfare levels and business conditions are causing continuing concentration of the population into larger centres and their immediate hinterlands (see Figures 4 and 5). At the same time, there exist certain impediments to extensive migration from countryside to cities (such as low incomes, which often do not allow rural people to acquire housing in cities, see Figures 6 and 7). This has led to the development of a pattern of extensive daily commuting to work into regional centres, but in places also more prolonged work migration from peripheral counties to Tallinn. While only in 1998 did 30.2% of the employed rural population work in cities and 62% worked in the municipality of their residence, the respective figures for 2004 were 38.5% and 50.7%.

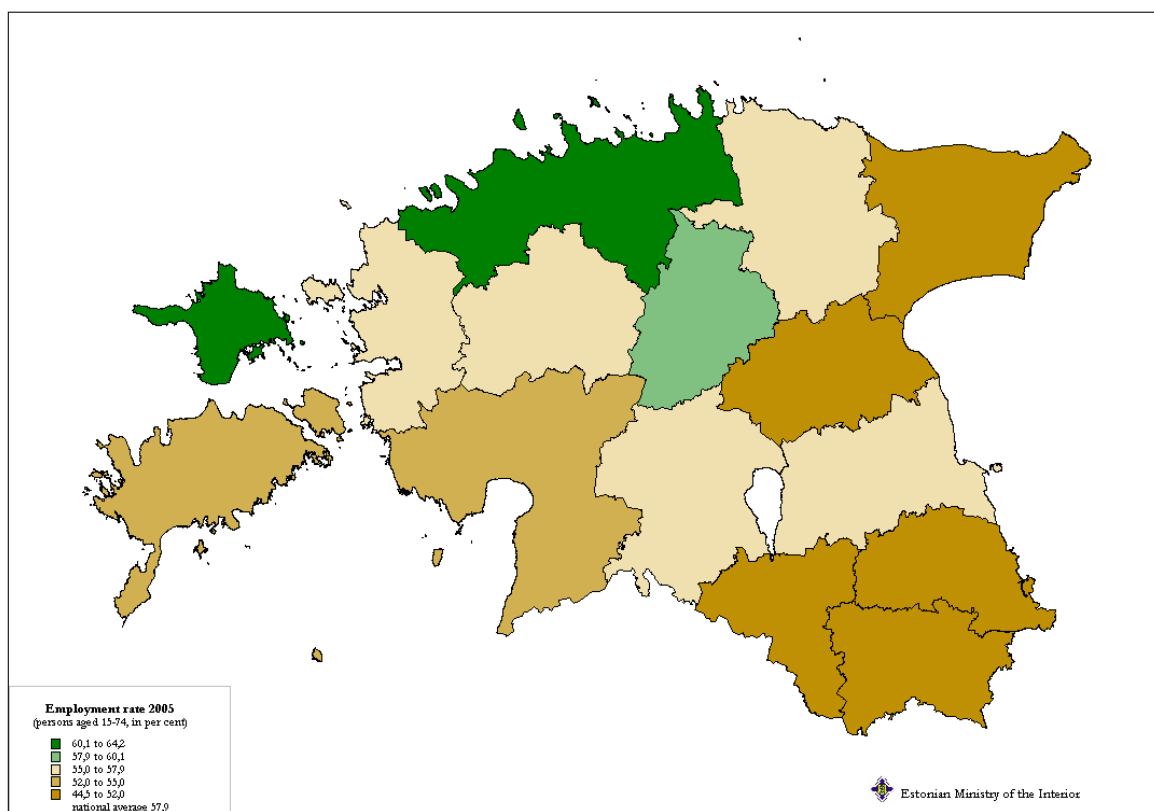


Figure 3. Employment rate in 2005.

Source: Ministry of the Interior on the basis of data from the Statistics Estonia

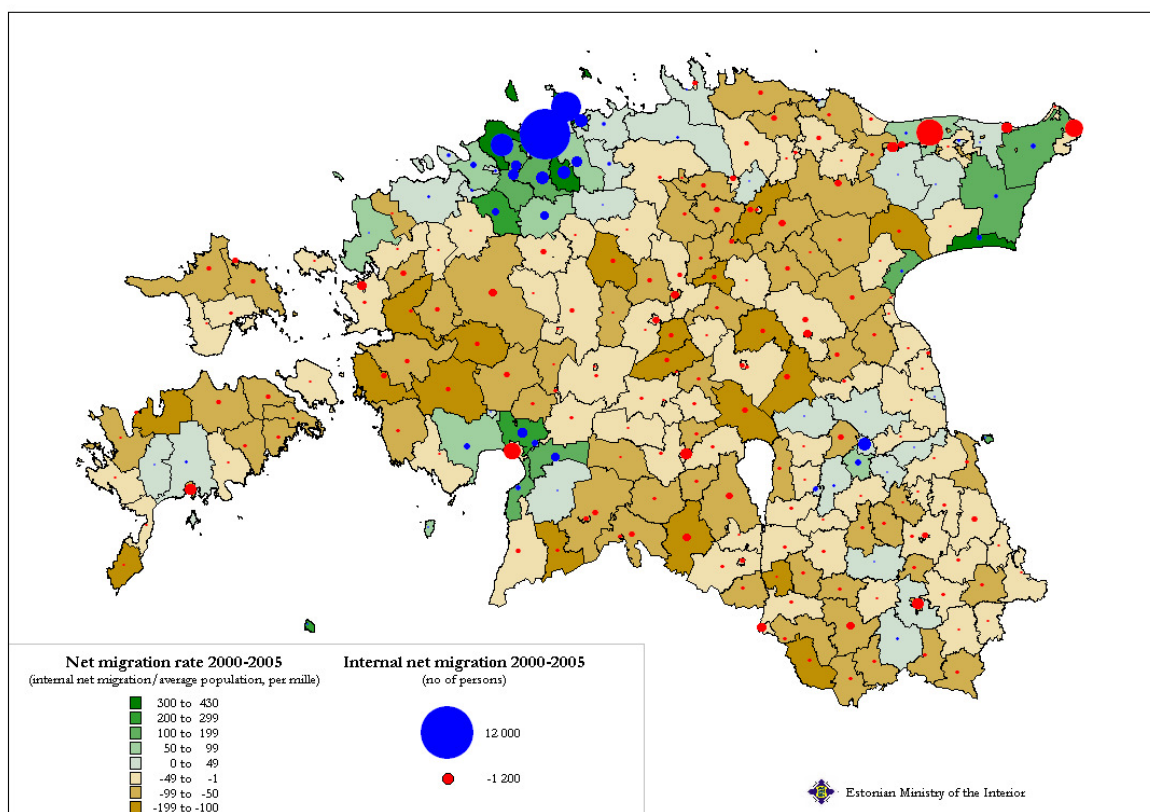


Figure 4. Internal migration of population 2000–2005.

Source: Ministry of the Interior on the basis of data from the Population Register

The following levels of urban areas can be distinguished in Estonia in the context of the development of competitiveness, provision of employment and services and solution of the respective specific problems:

- 1) Tallinn region – important for ensuring the international competitiveness of Estonia.
- 2) Tallinn, Tartu, Pärnu, and Ida-Viru conurbations – the success of urban regions as the engines of regional development is an increasing determinant of regional disparities. For instance, the relatively high regional development indicators of Harju, Tartu and Pärnu Counties are directly proportional with the good economic situation of the respective centre cities, while the problems of Ida-Viru County are connected with the restructuring difficulties of the county's industrial cities.
- 3) 12 urban regions – according to the Analysis of the Development Potential of Estonian Urban Regions (completed in 2002), 12 urban regions have been identified in Estonia: in addition to the above mentioned ones, these include Haapsalu, Kuressaare, Paide, Rakvere, Valga, Viljandi and Võru. The total population of all these urban regions together makes up approximately 70% of the population of Estonia and over 90% of the 500 largest industrial enterprises in Estonia are located there.
- 4) 44 labour market area centres or local centres – in addition to the above mentioned cities, the list contains also the larger local service centres.

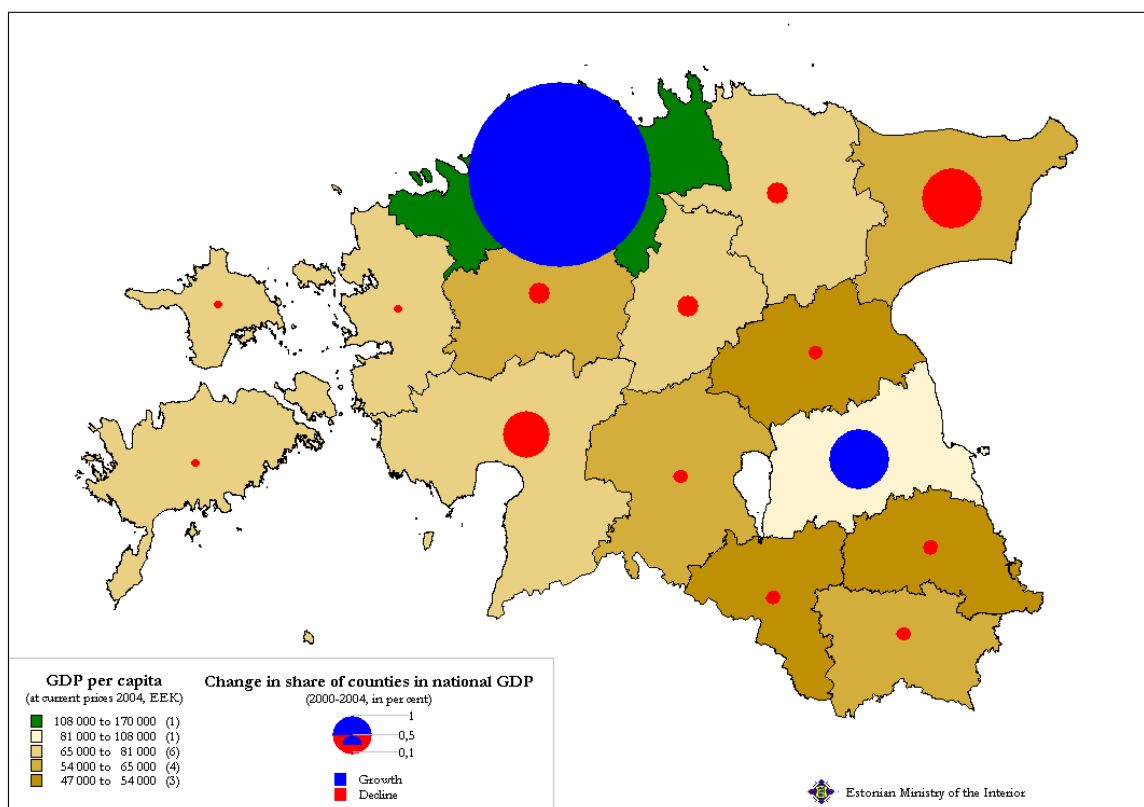


Figure 5. Gross domestic product in counties 2004

Source: Ministry of the Interior on the basis of data from the Statistics Estonia

Considering the population decline and ageing population of Estonia, it is important to maximise and harness the skills of every person able to work and facilitate participation in lifelong training if economic acceleration is to be achieved. The low employment rate, i.e. the great share of workforce withdrawn from the labour market in many regions clearly refers to under-utilisation of the available human resource. The low employment rate has a variety of reasons – structural unemployment due to disparities between demand and supply on the labour market, low entrepreneurial activity and modest job creation, great share of inactive persons due to long-term unemployment and low quality of labour, limited territorial mobility of labour force, or other factors determined by the specific structural features of the economy of the region concerned. The low employment rate in regions reflects the existence of “free” labour resource (i.e. the resource not involved in economic development) and causes regional disparities in welfare (living standard) (see Table 1).

Table 1. Regional disparities

County	Living standard	Age structure of population and labour			Economic activity and productivity				
	Wealth ¹	Social load ²	Employment rate ³	Free labour ⁴	GDP ⁵	Productivity ⁶	Investments ⁷	R&D activity ⁸	Entrepreneurial activity ⁹
Harju	2637.5	44.7	62.8	9.6	160 632	1 105 296	632 964	0.09	47.0

Hiiu	1373.0	49.0	62.3	5.8	70 009	427 852	248 930	0.04	26.0
Ida-Viru	1464.5	46.5	48.9	18.1	63 005	547 733	305 369	0.10	11.3
Jõgeva	1189.2	53.7	44.9	14.8	45 478	557 137	301 307	0.20	14.9
Järva	1644.0	49.7	57.2	11.4	67 732	816 431	442 081	0.04	15.7
Lääne	1592.0	51.3	55.9	8.3	62 616	508 614	285 615	0.01	21.0
Lääne-Viru	1945.4	52.7	54.9	6.9	69 862	650 478	360 170	0.02	19.6
Põlva	1254.6	54.8	45.2	14.3	48 688	652 289	350 488	0.00	16.9
Pärnu	1780.2	51.3	55.5	6.9	76 234	596 270	336 252	0.00	26.6
Rapla	1874.1	49.8	56.3	5.9	59 471	675 915	367 693	0.01	20.3
Saare	1475.8	51.1	54.7	5.3	67 292	611 272	339 282	0.01	21.8
Tartu	1963.5	47.9	58.9	5.2	88 370	792 506	440 438	0.09	28.5
Valga	1280.5	57.6	52.5	9.5	52 783	492 600	272 691	0.03	16.0
Viljandi	1405.3	53.1	55.6	9.2	59 925	650 119	355 022	0.02	16.9
Võru	1305.2	55.4	47.4	8.7	55 608	539 322	297 465	0.01	16.5
Estonian average	2012.0	51.2	57.1	9.9	103 454	859 061	63 904	0.08	30.2
Regional disparities ¹⁰	2.22	1.29	1.40	3.50	3.53	2.58	4.05		4.17
Trend of regional disparities ¹¹	↓	↓	↔	↑	↑	↑	↔	↔	↑

¹ – 2003–2005 average monthly income from wage labour per household member, in kroons.

² – dependence rate: 2003–2005 average share of non-working age population in working age population (aged 15–64 years), in per cent.

³ – 2003–2005 average share of employed persons in total working age population (aged 15–74 years), in per cent.

⁴ – unemployment rate: 2003–2004 average share of unemployed persons in economically active population or labour force (aged 15–74 years), in per cent.

⁵ – 2003–2004 gross domestic product per capita, in kroons

⁶ – 2003–2004 average net sales of enterprises per employed person (aged 15–74 years), in kroons.

⁷ – 2003–2004 average volume of investments in fixed assets per employee (for enterprises with 20 and more employees), in kroons.

⁸ – 2003–2004 average share of research and development expenditures of enterprises in their net sales, in per cent.

⁹ – entrepreneurial activity: 2003–2004 average number of companies per 1000 inhabitants.

¹⁰ – difference between the highest and lowest county indicator, in times.

Source: Ministry of the Interior on the basis of data from the Statistical Office

Steady outflow of labour force and young people from rural areas only further reduces the possibilities of re-employment of the above human resource, increases social exclusion, aggravates the under-utilisation of the existing infrastructure and, all in all, reduces also the

regions' ability to cope independently. Also the continuing concentration of the population in urban regions causes additional costs for the society as a whole: a need for additional infrastructures, growing pressure on the natural environment, additional inflation, aggravation of several social problems, etc.

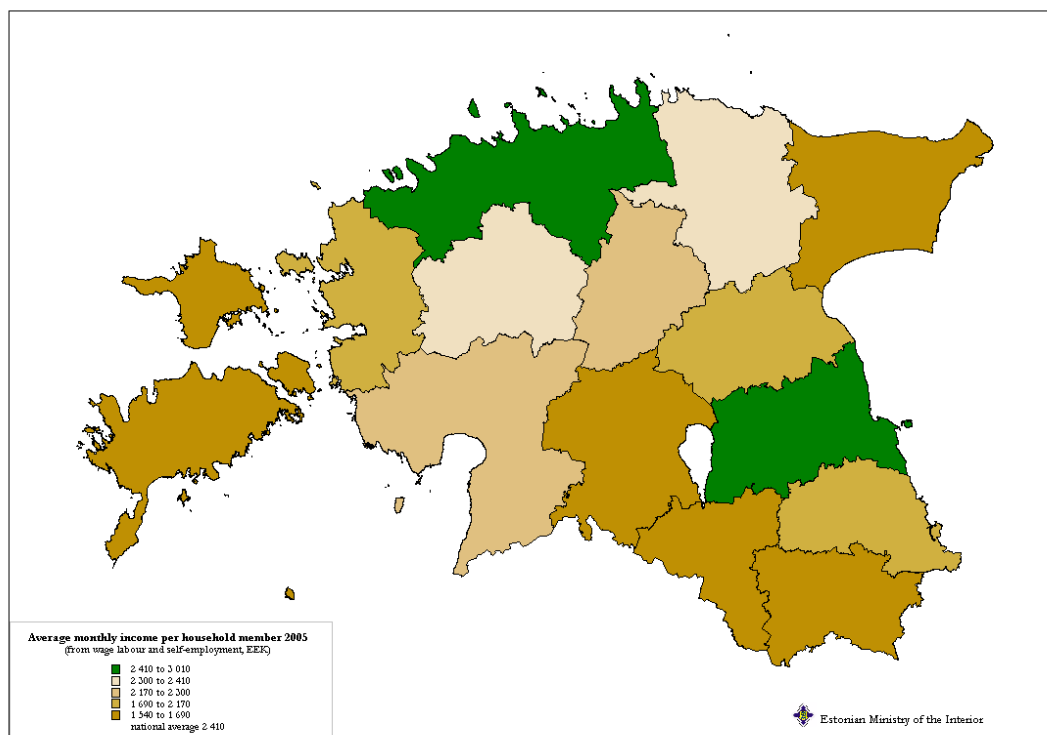


Figure 6. Average monthly income from wage labour and self-employment activity per household member in 2000-2005.

Source: Ministry of the Interior on the basis of data from the Statistics Estonia

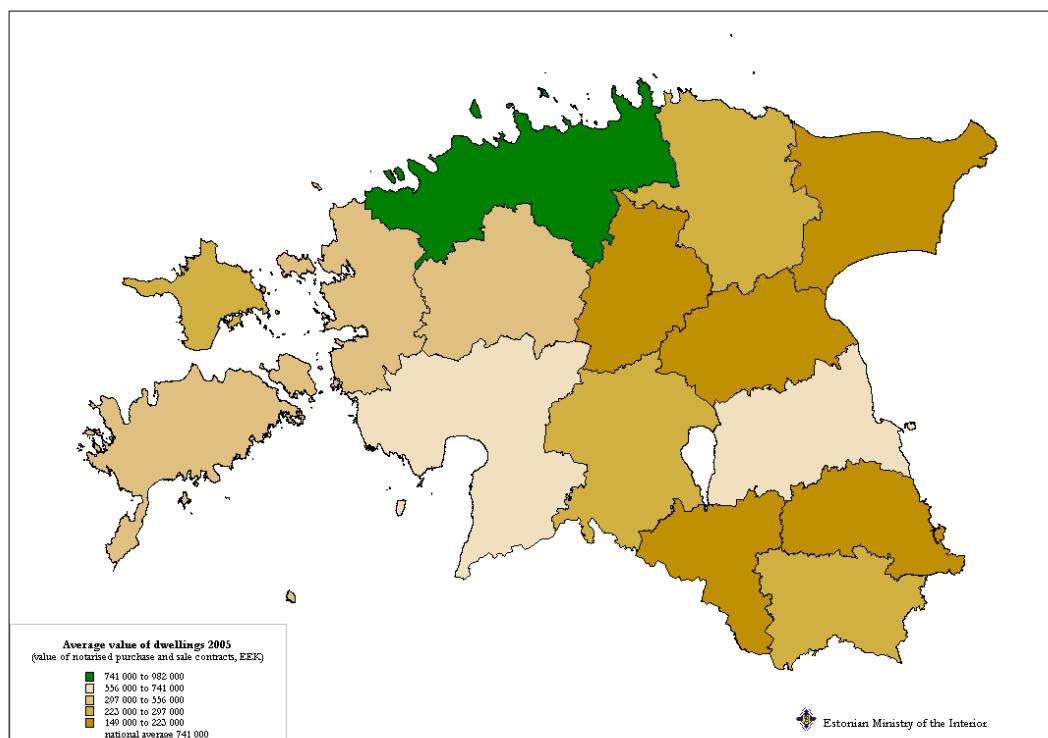


Figure 7. Average value of dwellings in 2005

Source: Ministry of the Interior on the basis of data from the Statistics Estonia

4.3.2 Development needs

Regional welfare is expressed as the satisfaction of basic human needs – housing, jobs, education, services, recreation. Spatial disparities in the level of satisfaction of basic human needs has led to regional emigration and acts as an impediment to spatial stability of the existing population and to attracting new inhabitants.

The increasing globalisation and internationalisation of economic activity and the resulting frequent changes in the economic environment have generated an ever-increasing need for enhancing the specific attraction of individual regions for investors and visitors.

Better satisfaction of basic human needs thus requires, on the one hand, that the accessibility of high-quality public services be improved and, on the other hand, that preconditions be created for generating new jobs.

Development needs vary between rural and urban regions.

4.3.2.1 Accessibility of public services outside major urban regions

An important group of factors causing an outflow of workforce from rural areas is the lack of daily needed health and education services (nursery and primary schools, basic and secondary schools, family physicians, pharmacy services) or the poor technical condition of the relevant institutions. Particularly important is the accessibility and quality of education. Accessibility of high-quality education is often a more pressing reason for change of residence than the availability and range of jobs because children have a much lower ability to commute

independently than adults do. No less important are also other public services, whose availability in the neighbourhood and satisfactory accessibility significantly improve the well-being of people. Their availability is also a prerequisite for the attractiveness of regions for investments and visitors. The relevant infrastructure includes recreation possibilities (culture centres, community centres, youth centres, village centres, libraries, hobby schools, etc.), sports facilities (sports grounds, gyms, skiing and health trails) and social welfare services (shelters, day centres, elderly houses, social houses, etc.).

The number of students of general education schools has fallen by 30 000 in the last decade due to a decline in birth rate and continues to fall. Stabilisation is expected only in the academic year 2010–2011, when the number of students is predicted to stabilise at the level of 140 000. This is 37% lower compared to the 221 060 students of the academic year 1995–1996. The decline in the number of students has a direct impact on the school network. Many educational establishments do not meet the health protection, fire safety and security requirements, construction standards and disabled access requirements and are not supplied with a sufficient number of computer workstations, projectors and fast Internet access. The percentage of pre-school age children not enrolled in a nursery school or school preparatory group steadily amounts to approximately 10% of the age group. In order to ensure early detection of problems that could prevent children from learning and ensure a smooth transition to school and equal possibilities for all children to acquire pre-school education, it is important to create the possibilities for all children to participate in pre-school education for one year before school. On the other hand, the provision of childcare services is important for regional employment. In addition, the lack or poor accessibility of nursery school places is already now impeding women from returning to the labour market after maternity leave. An increased need for creche and nursery school places is envisaged after 2010 as the people born in the years of the “Singing Revolution” reach the age of marriage and childbirth then. Also the need for day centres, hobby schools and other child care institutions is projected to increase.

Concerning health services, the entire country is by now evenly covered with family physician services and emergency medical care, which ensures the accessibility of primary health services. As the provision of specialised medical care is concentrated in centres, these services are somewhat less accessible in rural areas. The low population density in Estonia sets certain constraints also to the organisation of primary medical care in rural areas. Although a general trend both in Estonia and elsewhere in the world is for family physicians to merge into group practices, it is not expedient for rural family physicians to merge into larger family health centres, as this would significantly reduce the accessibility of their services. Therefore the possibilities of different services providers to organise cooperation and invest in infrastructure and technological development are strongly constrained. Problems occur in particular with the provision of adequate premises for family physicians, but also with the limited accessibility of diagnostic services, nursing care, rehabilitation and other supporting services.

Considering the above, the role of local authorities in ensuring the necessary infrastructure for providing primary health care services has to increase (in particular in local centres and outside of centres). It is important to ensure that the existing infrastructure is used as rationally as possible, taking into account the optimum number of clients and the volume of services and developing, where necessary, multifunctional centres providing a range of different health and social services.

The low quality of nursing services is due to the high fragmentation of their provision. Welfare services depend on and are closely connected with adjacent sectors such as

education, health or employment, which makes cooperation between different specialists indispensable in daily work. It is also necessary to provide integrated aid, for example to merge health and social services in organising care and nursing for the elderly and provide such services by one institution. Separate planning and provision of the services impedes the movement of people between the services of different sectors in the event of changed needs.

The number of social dwellings (social apartments, other social accommodation, support homes) amounted to 2727 in 2004, with a third of them lacking basic amenities. The total of 3439 people were using social housing in 2004. According to an estimate of local authorities, there is a need for 354 additional dwellings, of which 35 should be adjusted for people with special needs. In addition, part of the existing dwellings need to be adapted to people with special needs.

Social help in the form of day centres, rehabilitation centres and shelters for different target groups, incl. shelters for the victims of violence against women, is not ensured at an equally high level in different regions of Estonia. For instance, while the existence of one specialised shelter for women per 7500 inhabitants is regarded as a standard elsewhere in Europe, there are only three such shelters currently in Estonia (in Tallinn, Tartu and Kohtla-Järve). These have been established by non-profit organisations and accommodate 25 persons in total.

Estonia has 569 public libraries and nearly 300 clubhouses, community centres or cultural centres. The network of public libraries has remained stable already since its establishment in the 1920s. Almost every settlement with a hundred or more inhabitants has a library. All public libraries provide free access to the Internet. A need for establishing or modernising cultural and sports centres exists, in particular in local centres. Rural communities have problems with the poor condition of community centres and lack of choice in recreation. Facilities fallen out of other uses constitute a resource for the establishment of clubhouses and additional recreation opportunities.

Estonia is still short of sporting facilities. These are often absent in the vicinity of homes, nor do they correspond to the structure of recreational sporting. The highest priority from the point of view of providing opportunities for daily exercising is to develop a network of publicly accessible neighbourhood sports facilities which would take into account the location of residential areas and schools and the capacity of the facilities both in summer and winter conditions and would be tailored to the number of inhabitants in the area and the structure of recreational sporting. Also, the so-called Third Wave principles, according to which each county should have at least one stadium, sports hall and swimming pool meeting the needs of national contests, are not yet fully implemented in Estonia. The gyms and swimming pools of many schools are in a poor condition and 1/3 of basic and upper secondary schools are lacking a gym at all.

The accessibility of one or several public services is insufficiently ensured in a big part of rural regions, with the shortcomings varying between regions. Most of the existing infrastructure facilities have been built decades ago and have often become dysfunctional by now – the original function of the buildings or facilities has either been lost or transformed due to a decline in the volume of services. In addition, the utility systems, general structures and publicly used parts of many buildings and facilities are worn out, having therefore become uneconomical and not meeting the current technical, environmental, health a.o. requirements. The revenues of local authorities are in many cases insufficient for maintaining their social infrastructures at the required level, not to speak about comprehensive modernisation. As the customer base of such infrastructures in rural regions is constantly decreasing, it would be expedient to give the under-utilised facilities additional functions in

the form of other services.

The location of public services and planning of the necessary infrastructure has to be founded on local and regional planning (development plans of local authorities, county development documents, incl. thematic plans for social infrastructure) and take into account, among others, cost efficiency (optimal number of clients, integrated provision of services) and the location of the nearest centres. Additional investments need to be made to improve the accessibility of public transport. It is not possible at present, in the conditions of low population density and low solvency of the population, to raise public transport fares. Therefore the existing schedules are sparse and do not satisfy the transport needs of the population. Increasing the flexibility and convenience of the public transport system is part of improving the accessibility of public services.

4.3.2.2 *Specific development needs of urban regions*

The specific needs of urban regions are related to problems caused by rapid quantitative growth and a need for regenerating urban regions with declining economies.

For the purposes of this Operational Programme, the following urban regions are distinguished in Estonia: Tallinn along with the municipalities of its hinterland, Kohtla-Järve urban region, and the cities of Tartu, Pärnu and Narva. The population of these regions makes up ca 56% of the total population of Estonia (as of 1 Jan. 2006).

The extensive growth in recent years in particular in Tallinn but also in Tartu and Pärnu has put public urban space under a strong construction pressure. At the same time, there is a great potential in developing the so far undeveloped shore areas and regenerating production areas not fitting in with urban space. New solutions need to be found for the organisation of transport, in particular through developing public transport and light traffic but also constructing traffic nodes and parking lots.

An important key word among urban problems in Estonia is urban sprawl, which presents an acute problem in the hinterland of Tallinn but also in those of Tartu and Pärnu (see Figure 4). Urban sprawl is expressed in the shift of the population from urban centres to suburban hinterlands, but also in the growth of areas occupied by production facilities and trade centres in suburban green areas. Although the spread of building activity into the hinterlands of cities is largely inevitable, it has taken place very rapidly and haphazardly in Estonia. This inevitably brings along unplanned land use, overload of the infrastructure necessary for providing local public services, overuse of suburban public recreation areas and rapid growth of transport problems. The above problems cause a general deterioration of the living environment and decline of safety and security in these areas, bringing about significant health risks. Many areas are confronted with a need for new infrastructure objects (such as child care institutions). Also the suburban public recreation areas need to be further developed.

The rapid population growth and new production investments have caused a significant increase in traffic load. Traffic flows have multiplied in certain places in suburban areas. For example in 2005 there was an over 10% growth compared to 2004 in several road sections, extending even to 27% in places. At the same time, the share of public transport has constantly decreased. This is aggravating the problems of transport infrastructure and leading to exhaustion of the capacity of traffic nodes and transport links.

Public transport and light traffic have potential for mitigating the problems caused by the growth of traffic frequency. Transport systems, passenger infrastructure and public transport

preference systems need to be upgraded, but also an acceptable traffic environment created for pedestrians and cyclists.

Another problem in cities is the concentration of social problems (unemployment, homelessness, crime, poverty, etc.) in certain urban regions. The need for complex restructuring of urban regions is most clearly expressed in the Ida-Viru industrial region, while in other cities such regions are not so clearly established yet. In order to prevent this from happening, it is necessary to create activation and rehabilitation centres and develop other services preventing and alleviating social problems, including the necessary infrastructure.

One of the most important bottlenecks in urban and suburban regions is the shortage of child care facilities. In addition, an increased need for creche and nursery school places is envisaged after 2010, when the people born in the years of the “Singing Revolution” reach the age of marriage and childbirth. Also the need for day centres, hobby schools and other child care institutions is projected to increase.

It is also necessary to increase the efficiency of integral spatial planning of suburban areas and cooperation between cities and the municipalities of their hinterlands in managing urban regions as integral wholes and in solving their development problems. The spatial plans drawn up have to ensure a safe, healthy and secure environment, take into account the need to reduce pollution load to the environment and create a favourable environment for businesses.

4.3.2.3 Competitiveness of regions

Competitiveness of a region means the capacity of the region to adapt to changes in the economy and harness the specific development resources of the region, maintaining or increasing the well-being and employment of the population. Ensuring of the competitiveness of regions is directly related to the competitiveness of enterprises. The structure and share of the latter is changing in time and the necessary transformation processes can be accelerated by means of economic development and regional policy tools.

The development of both urban and rural regions depends, on the one hand, on their internal capacity to find and harness their specific development resources and, on the other hand, the capacity to concentrate their efforts on overcoming the bottlenecks resulting from the current situation. A high-quality living environment, active cooperation between enterprises and the non-profit and public sector and intra-community ties will become increasingly important development factors in future. Therefore there are no regions in Estonia with any development prospects. Our regions have a great deal of unused development potential for rolling out their uniqueness (specific competitive advantages).

The majority of agricultural employment and a significant part of industrial employment has been lost within the last 15 years, while a growth has taken place in services employment, especially in cities (Tallinn in particular). A few branches of industry (timber, metal, electronic engineering) have restored part of their employment with the support of foreign investments but great changes are taking place in its in-country spatial distribution: the relevant production is shifting from big cities to their suburban areas or hinterlands, where labour is still available. In 2005, for example, there was a significant employment growth (3500 new jobs) in Ida-Viru County. However, employment provided by labour intensive enterprises, which has been growing in peripheral counties in the 2000s, is expected to undergo a significant new decline in the coming decade due to wage growth, which will pose a special challenge to regions where the production sector has a greater role.

The majority of investment and business activity (especially those requiring higher qualification) are concentrated in Tallinn and its hinterland and, to a lesser extent, also in Tartu, causing also a continuing concentration of workforce. Further restructuring is needed in the industrial complex of Ida-Viru County. County centres have only a modest potential to shape the labour market areas of their hinterlands, nor are they very attractive for investments. Among the reasons are weak communications, low attractiveness and lack of diversity of the living environment for highly qualified population, weak ties between the centre and hinterland, low contribution of local development institutions to the development of the region and low level of preparedness of business locations.

The network of regional competence centres is poorly developed in Estonia. Several university colleges and vocational education institutions and county development centres are located in regions but their interlinkage and joint contribution to regional development is still weak compared to the regional innovation systems successfully launched in the neighbouring countries.

The tourism sector makes up a considerable part of the Estonian economy. According to the data of the Statistical Office, tourism contributes nearly 8% of the GDP of Estonia and the same share of all employed persons is engaged in tourism. Tourism industry is an important source of export earnings (in 2005, the export of tourism services made up 38% of the total services export and 11% of the total export of goods and services).

Different regions of Estonia have a rich cultural and natural heritage in many ways unique in the European context. This heritage could be harnessed into the service of local development through promoting nature tourism and cultural tourism. As of 1 January 2005, Estonia had the total of 373 protected areas, 544 protected parks and forest stands and 462 areas with temporary restrictions, with protected areas covering 16.3% of the land territory of Estonia. The total of 24 742 single features and 12 heritage reserves are protected as cultural heritage. Approximately 40 built-up areas of cultural and environmental value have been identified in settlements (incl. 21 areas already designated).

Estonia has around 210 operating museums with a different form of ownership, which have become important destinations of cultural tourism. It has been estimated that 1/5 of the ca 1.7 million museum visitors in 2004 were foreign tourists. The most visited sites are those connected with tourist sights, which constitute attractive tourist magnets for both domestic and foreign tourists.

The inevitable urbanisation and suburbanisation has lead also to a growth in domestic demand for recreation. The tourism infrastructure and tourism marketing founded on the local natural and cultural heritage is an important source for promoting a region.

Harnessing of the potential of cultural and natural sites to the service of local development has so far been impeded by the technical condition of the sites, their poor accessibility and exposure, a lack of supporting infrastructures and additional services, but also by insufficient linkage between the sites. At the same time, many recreation and visitor sites are congested in certain periods, with the visitor load exceeding the carrying capacity of both nature and the local population. Other bottlenecks characteristic of the tourism sector include the short-term nature of the stay of foreign visitors in Estonia and seasonality of tourism services.

The Soviet times have left both the centres and rural areas with a heritage of numerous former military, industrial and agricultural facilities, which are littering the natural and cultural environment but, on the other hand, many of them represent a so far unexploited potential in terms of both land and facilities. These are, however, not attractive enough for being put into use without special measures by the public sector. Also the public facilities fallen out of

public use in rural areas represent an additional resource.

Internet access and the relevant services are provided in Estonia by the private sector. Yet a functioning market alone does not always ensure up-to-date Internet links in places where these are absent – for instance in peripheral and low-density areas. Also the provision of access to the Internet in public places is important in the regional sense but the initiative of the private and third sector alone is insufficient for this task. It would be feasible to use central resources for supporting the activities aimed at improving Internet access.

4.3.3 Overview of policies to date

Since 1995, Estonia has been implementing a regional policy focusing on supporting the areas confronted with restructuring problems. The possibilities to actually direct regional development have been constrained by both the shortage of financial resources allocated to the sector and inadequate coordination and integration of different sectoral policies.

The key documents dealing with the trends, problems and investment needs of regional and local development in Estonia are the National Spatial Plan “Estonia 2010”, the Estonian Regional Development Strategy 2005–2013, county development and spatial plans and development plans of cities and rural municipalities. Implementation of development plans of cities and rural municipalities is supported by the state through both appropriated support for infrastructure development and programmed support. The latter includes the NDP measure “Local socio-economic development”. Following the accession to the EU, new possibilities have opened up for the rural areas of Estonia through a number of rural development, agricultural and fishery measures under the NDP, the Rural Development Plan (MAK) and the EU Common Agricultural Policy.

Re-creation of the local authority system in 1990–1993 resulted in the transfer of the task of providing local public services from the state to local authorities. As Estonia has been applying a one-level local authority system since 1994, these tasks fall within the competence of cities and rural municipalities. The competence of local authorities took a rather extensive form, encompassing also the provision of upper secondary education, primary medical care and partly also secondary care. Also the relevant infrastructure was transferred to municipalities together with the obligation to provide services. Although the condition of the inherited infrastructure did not by far meet the needs, neither the local authorities nor the state had any possibilities whatsoever until 1996 to modernise and supplement the infrastructure. This left an investment gap whose impact is still felt. Since 1996 the state budget incorporated a Public Investment Programme, which included also support to municipal investments. Until the year 2000 local investments were supported through County Investment Programmes, which covered mainly investments in the development of general education schools and cultural and sports facilities and to a lesser extent also social assets. Allocation of resources was based on priority lists of investment needs drawn up by counties. Since 2000 the investments in general education schools and cultural facilities have been supported through the budgets of the respective ministries, while child care institutions, hobby schools and social assets have been left in a disadvantaged position due to the scarcity of resources. In addition, there exist several small-scale support programmes for the implementation of improvements worth up to half a million kroons. In 2004–2006 the development of local public infrastructure has been extensively supported also from the Structural Funds of the European Union.

The task of developing the local business and visitor environment lies mostly with local authorities and local non-profit organisations. State institutions are represented in this sphere

by national protected areas and national museums, whose investment possibilities have so far been limited. National regional development programmes targeted to the specific Objectives of the EU regional policy were drawn up in 1997, aimed at project-based improvement of, in particular, the local business and visitor environment. Experience from these regional development programmes served as a basis for developing the respective support mechanism for the EU Structural Funds for the period 2004–2006. Smaller-scale activities continue to be supported from national funds. Public tourism investments are supported also under the PHARE and INTERREG programmes.

The Local Initiative Programme has played an important and stable role among regional development programmes, which has resulted in the development of a rather strong village movement in Estonia. Many village associations are by now capable of taking up projects of also a broader regional importance. Local initiatives have been supported in 2004–2006 also in the frames of rural development.

Preparation of development plans for cities and rural municipalities started as a mandatory exercise already in 1990 but the plans remained relatively formal for a long time. Since 2000, every local authority has a statutory obligation to have a development plan for at least three forthcoming years. These plans serve as a basis for local budgeting and for undertaking financial obligations. The requirement of development plan based allocation of funds has been applied to EU aid and the majority of national support instruments since 2004. Due in particular to the introduction of this requirement, local development plans have reached a new qualitative level by the present moment and most of the development plans include also a specific action plan. Similarly to local development plans, comprehensive spatial plans of cities and rural municipalities are required by law. Preparation of county comprehensive plans started in 1996. By now all counties have a number of development documents of various orientations structuring and prioritising the different local development needs. At the same time, there is still room for development in terms of cooperation between the national, regional and local level.

4.3.4 Implementation of the National Development Plan / Single Programming Document 2004–2006

Local and regional initiatives are being supported under the National Development Plan / Single Programming Document (NDP/SPD) 2004–2006 mostly through Measure 4.6 “Local socio-economic development”. The measure is divided into two sub-measures.

Sub-measure 4.6.1, “Development of the local physical living environment”, supports plan-based local investments in general education schools, nursery schools, social assets important for employment, transport infrastructure, district heating and street lighting. The support mechanism is plan-based, consisting of two stages for the beneficiary: pre-application and, for facilities provided for in the plan, full application as the second stage. The volume of pre-applications received in counties was fourfold in excess of the available funds, thus the demand considerably exceeds the possibilities of this period. Project implementation is proceeding as planned. The plan-based procedure has proved justified in most cases and its application would be feasible also in the period 2007–2013.

Based on experience to date, it would be expedient to increase the minimum amount of support per project in the next programming period. It would also be expedient to extend the list of eligible operations to provide for solving the most pressing problems of different regions concerning local public services. Given that the nature of problems varies between urban and rural areas, it would be expedient to split the support measures between urban and

rural areas.

Sub-measure 4.6.2, “Increasing of the competitiveness of regions”, supports activities aimed at increasing the attractiveness of the local visitor environment and rehabilitation of former industrial and military sites. Demand for the support is greater than initially expected and the allocated funds were fully committed already by May 2006. The support has been directed mostly to the development of the local visitor environment, while other activities initiated by municipalities to enliven the local business environment have been neglected.

In 2007–2013 it would be expedient to support not only the development of the local visitor environment but the local business environment more generally. The applied running application scheme has proved justified and will be expedient also in 2007–2013.

Implementation of different sub-measures with such heterogeneous orientation and management procedures in the frames of one measure has proved somewhat inconvenient in the administrative sense. In the period 2007–2013 it would be expedient to implement the operations listed under one priority axis through at least three different measures / courses of action.

4.4 EDUCATION INFRASTRUCTURE

Estonia envisages its future as a knowledge-based society where research to seek new knowledge, application of knowledge and skills and the development of human capital is the source of growth for the economy, competitiveness of work force and quality of life. In order to achieve continuation and sustainability of economic development, the availability of sufficient qualified labour supply is becoming more and more important given the Estonian demographic conditions and trends.

For these reasons, it is crucial for Estonia to invest into the quality, competitiveness and effectiveness of education which depend to a large extent on the teaching conditions – i.e. the relevant infrastructure. Infrastructural developments must be done regionally in order to increase the access to education and youth services. The following infrastructure needs to be developed first and foremost due to its direct relevance to economic development:

- vocational schools – vocational schools provide education and training which is directly needed for providing labour market with people that have skills needed in the economy;
- schools intended for students with special educational needs (SEN – includes children with disabilities) – ensuring a safe study and training environment as well as healthy living and study conditions for these students enables to increase their future participation in the labour market and society, prevent their inactivity and social problems;
- youth centres, information and counselling centres and hobby schools (youth work infrastructure) – this infrastructure is important for ensuring better matching of educational choices with labour market needs and facilitating labour market integration of young people, for preventing social problems that are costly to society, and also decreasing drop-out from general education and teaching basic working habits.

4.4.1 Vocational education and training

Developments in vocational education and training (VET) in Estonia are described in the Development Plan for the Estonian Vocational Education and Training System 2005–2008. According to the vision set out in this plan, vocational education will have become an integral part of the Estonian education system by 2015, being tailored to the needs of the Estonian society, employers and students. Vocational education will be highly valued, its accessibility ensured and graduates will find employment commensurate with their qualifications and abilities. The number and location of VET institutions and the learning environment of the institutions, incl. modern teaching equipment and teaching aids, play an essential role in turning this vision into reality and fulfilling the tasks of vocational education.

As of 1 October 2006, the network of VET institutions in Estonia consisted of 48 institutions, 10 of them being private owned, 3 municipal owned and 35 state owned. One of the latter is a specialised state school for national defence in the area of government of the Ministry of Defence, while the remaining 35 state owned schools are administered by the Ministry of Education and Research. In total, there are 32 000 students enrolled in these institutions.

Table 2. Number of VET institutions

Form of ownership	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
State VET institutions (area of government of the Ministry of Education and Research)	59	55	54	49	43	38	34
State VET institutions (area of government of other ministries)	3	3	3	4	3	3	1
Municipal VET institutions		3	1	1	3	3	3
Private VET institutions	17	23	26	19	18	14	10
TOTAL	79	84	84	73	67	58	48

Source: Education and Employment Monitoring Centre, Ministry of Education and Research

The Estonian vocational school network has undergone comprehensive and systematic restructuring, in particular in the last six years. For instance, there were 79 VET institutions in Estonia in 2000, which implies a decline by 31 as of October 2006. The number of state VET institutions has been particularly intensively optimised, having fallen from 62 to 34 by the end of 2006. While the average number of enrolments per VET institution amounted to 460 in 2000, it had grown to 615 by the end of 2006 and the respective figure for state VET institutions was already 775 by the end of 2006. Thus, the network of VET institutions has become considerably more efficient and by 2008 it will be fully reorganised and brought into line with the possibilities and needs of the society – the location of schools in conditions of the low population density of Estonia will still ensure their accessibility to everyone interested. It is thus expected that as of 2008–2009 all schools or training facilities operating in Estonia (further merging of school administrations is not excluded) will be sustainable also in 10–15-year perspective.

Despite the fact that the demographic situation in Estonia shows a declining trend for school-age young people in the coming decade, the number of enrolments in VET institutions is projected to remain at the present level for the following reasons:

- VET institutions are increasingly becoming venues also for adult professional in-service training and retraining. In 2005, nearly 17 000 adults underwent training in state VET institutions and the need for this type of training is projected to increase significantly in future. As Estonia lacks a separate system of adult training centres while the need for professional in-service and retraining will increase manifold in the coming years in connection with the need to shift to knowledge-based economy, the volumes of training in VET institutions will increase substantially;
- vocational learning opportunities increased in 2006 with the introduction of new flexible forms of vocational education (vocational education for young people without basic education, vocational education without general secondary education, introduction of apprentice training), which in turn increases the amount of potential vocational students;
- planning of state-financed enrolment and the allocation of funds to schools on the

basis thereof will become even more flexible in 2007, which should allow more flexible decisions and better consideration of local target groups and their training needs;

- improved learning environment, higher study quality and other favourable factors will improve the attractiveness and reputation of vocational education. The share of general education school graduates continuing their education in vocational institutions is therefore projected to increase. While presently approximately 30% of basic school graduates opt for VET institutions, their share is projected to increase to 40% by 2009–2010.

Main problems of vocational education:

- Vocational education is not attractive and modern enough and its quality is not high enough. One of the reasons certainly lies in the fact that the teaching aids and equipment used in vocational education are largely physically and/or morally outdated, which in turn affects also the quality of vocational education. Also, the image of vocational education is connected with the condition of the classrooms and living rooms and buildings of the institutions, which rather drives young people away, not giving them confidence that a high quality of vocational education can be ensured in such conditions;
- vocational education is often the second choice of students (the first being general education) due to its low reputation. At the same time, general education provides a better basis for moving on to higher education, where most young people are presently motivated to go in spite of the fact that the Estonian labour market is already now suffering from structural unemployment and the trend is projected to continue in the coming years;
- primary training of vocational teachers has been relatively inflexible and narrow and in-service training inadequately organised; there has been a lack of motivation to become a vocational teacher;
- access to training consistent with the abilities and preferences of students may be affected by the region of residence, socio-economic situation, special educational needs of the student or other factors, which creates unequal opportunities,
- too many students drop out of the education system due to the shortage of support measures for applying an individual approach, taking into account special educational needs and overcoming learning difficulties.

The reasons behind the problems of the Estonian vocational education are complex. Vocational education has long been held in low esteem and under-financed, which has also shaped the attitudes of people and the society. Investments in vocational education have been completely inadequate in recent decades, which is why in most cases the learning environment does not meet the modern requirements, which in turn is part of the reason why also the level of teaching has suffered in many cases. The study and production facilities have been built mostly in the period 1970–1990 and no new study buildings have been built at all in recent years. The following diagram shows that the total investments in vocational education within the last decade amounted 966 million kroons, while the modernisation of the study environment and utilities of the entire municipal and state VET institution network is estimated to require additional 4.3 billion kroons.

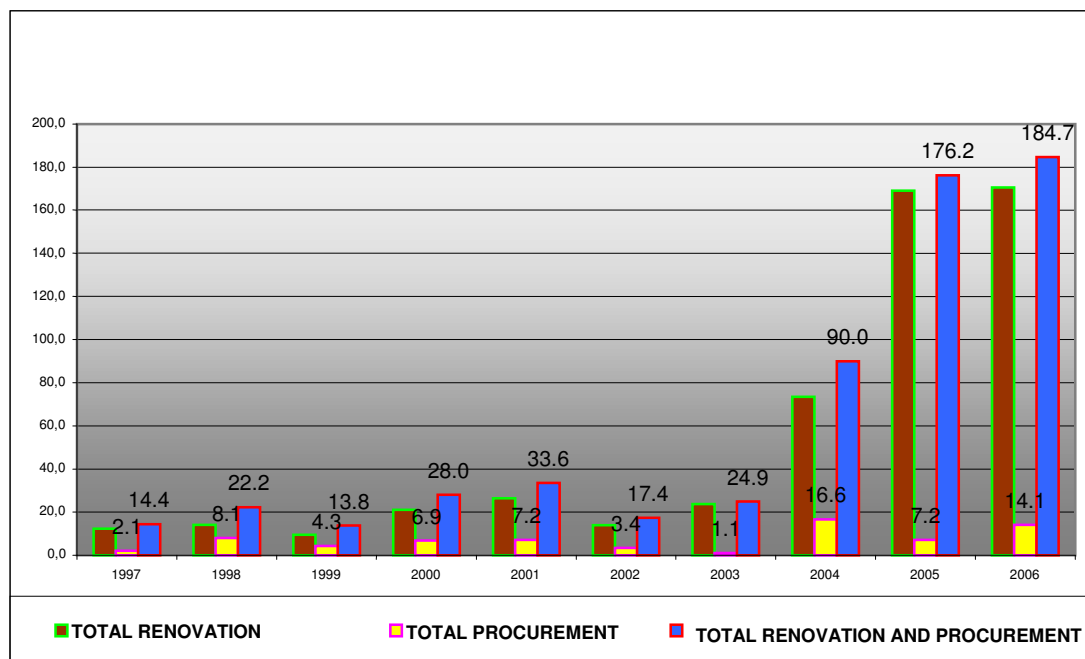


Figure 8. Investments in vocational education and training 1997 – 2006 (million kroons)

Source: School Network Bureau, Ministry of Education and Research

It is important from the point of view of improving the quality of vocational education to invest in modern study facilities in order to ensure the availability of state-of-the-art equipment and tools, incl. state-of-the-art information technology. Significant improvement of the study environment will help to raise the low reputation of vocational education and improve the quality of teaching, which is currently one of the main limiting factors to the growth of skilled labour in Estonia.

4.4.2 Schools for students with special educational needs

For the purposes of the current document, schools for students with special educational needs (SEN) are defined as schools intended for students with physical, speech, sensory and mental disabilities and psychic and health disorders and also students requiring special treatment due to behavioural problems. There are in total 46 SEN schools in Estonia (predominantly state schools but some are also municipal owned), most of them (40) being basic schools, 4 primary schools and 2 combined basic and upper secondary schools. There are in total 27 state general education schools for SEN students in Estonia.

The acquiring of mandatory basic education in these schools takes place on the basis of either the national curriculum for basic and upper secondary schools, simplified national curriculum for basic schools or national curriculum for students with moderate or severe learning disabilities. As local authorities have not been capable of creating a supporting environment for SEN students and many SEN students come from families at social risk, the state has considered it necessary to maintain such a number of state schools. In the academic year 2004/2005, there were in total 4926 students in SEN schools, 2998 of them studying in state schools. A big part of the above schools are “county schools” according to their catchment

area. Eight schools are sole ones with nationwide catchment.

The buildings of SEN schools are largely in a poor condition and the learning and living conditions of students do not meet health protection requirements. The learning and living environment is not safe and its conformity to today's requirements is not ensured. The schools are short of the necessary state-of-the-art teaching aids and also the required teaching facilities and are therefore incapable of providing all the support services required by students and parents.

The total allocation for the renovation of state general education schools for SEN students in 2001 to 2006 amounted to 102.7 million kroons.

Main problems in schools for students with special educational needs:

- The infrastructure of the schools is in a poor condition and the investments allocated to the schools have not been sufficient to modernise the infrastructure and bring the learning and living conditions into line with today's requirements
- The schools are short of modern teaching aids and the required teaching facilities and the schools are therefore having difficulties with providing the necessary support services
- The health of the population is declining year by year. The learning environment of SEN schools therefore has to meet enhanced health and safety requirements
- The number of SEN students in schools has shown a declining trend in recent years, while the number of students requiring special treatment due to behavioural problems has even increased. This is due to both the social problems existing in the society and the state education policy principle according to which all children with special educational needs should be involved in the education process. For example, 5166 students were enrolled in SEN schools in the academic year 2002/2003 (2.7% of the total number of students) and 4926 in the academic year 2004/2005 (also 2.7% of the total number). These figures have remained relatively stable compared to the general decline of the number of students. In regular schools, however, the number of SEN students was 21 665 in the academic year 2002/2003 and 23 125 in 2004/2005. The increase in the number of SEN students in regular schools has generated a need for a well-functioning counselling system that would support students, parents and teachers. The existing system is fragmented and its accessibility varies between regions. The Human Resource Development Operational Programme includes as one of the operations the creation of an integrated counselling system, in which also the SEN schools will have an essential role as providers of the service of pedagogical and psychological counselling. Yet the current facilities of SEN schools do not allow them to perform this task.

4.4.3 Youth work

As of 2005, young people of the age group 7–26, i.e. those belonging to the target group of youth work in Estonia, amounted 366 914 or 27.2% of the total population. The quality and accessibility of youth work has varied between areas of youth work and regions of Estonia and has not been supporting the preparedness of young people for coping in the society and entering the labour market. One of the reasons behind that has been the poor condition of the main elements of youth work infrastructure providing youth work services – open youth centres, information and counselling centres and hobby schools.

There are over 300 hobby schools, 140 youth centres and 20 information and counselling centres in Estonia but just a few of them meet the modern requirements. This is due to the poor condition of the buildings and limited capacity of local authorities, who own or administer them in most cases, to renovate them.

The condition of the centres and hobby schools varies greatly. Most of them are located in the buildings of former schools or nursery schools, abandoned offices, apartments and cellars. The most urgent need is for renovating the rooms – windows, doors, roofs, floors, utilities, furnishing, technical equipment, etc. Also the shortage of space is a problem in places, requiring the extension of buildings. The IT tools and inventory necessary for various activities is mostly both physically and morally outdated. The current situation is strongly influencing the quality of the services provided and causing a high staff turnover and lack of continuity of the service. Nor do young people themselves wish to come to such poor conditions, which deprives them of the opportunities of non-formal learning complementary to formal education and thereby also of the skills they could acquire through non-formal learning for coping in the society, realising their abilities and entering the labour market

Main problems in youth work:

- Uneven quality and accessibility of youth work services;
- Limited awareness of youth work opportunities;
- Poor condition of youth work infrastructure, worn-out environment and inadequate facilities for providing youth work services;
- Low involvement of young people in decision making processes.

4.4.4 Experience with the use of structural instruments in the education sector in 2004–2006

The aim in the area of vocational education in the period 2004–2006 and as a follow-up until 2008 has been to renovate a significant part of the learning and living environment of 10 vocational education institutions and thereby modernise the learning and living conditions of 5000 students. Nearly 13 000 students are enrolled in these schools in the current academic year. Considering the volume of investments already made and the persisting needs of these 10 schools, the rate of modernisation of the learning and living environment of the 10 schools can be estimated at nearly 25%. The same percentage of 13 000 students makes 3250. However, considering the fact that the persisting needs include also those investments that are not directly related to the modernisation of learning and living conditions (utility networks, support systems, etc. are estimated to make up a third), one can assume that the established goal will be met.

The biggest setbacks of the previous period were planning mistakes in the financing of the facilities. A possible sharp rise of building prices and possible miscalculations in the preliminary cost estimations of construction and renovation works were insufficiently allowed for and also the fact that not all VAT is eligible for funding was overlooked. As a consequence, the financing needs of the facilities originally planned for the previous period have increased by 176 million kroons and not all of the planned works can therefore be implemented in full. A possible rise in prices and ineligibility of VAT will be taken into account in the coming period.

No investments were made in the renovation of SEN schools in the frames of the Estonian National Development Plan 2004–2006.

In the field of youth work, investments were made in 2004–2006 in information and counselling centres for young people and in open youth centres. In the coming period, seven open youth centres and five information and counselling centres will be renovated and two new youth centres built. The renovation will consist mostly in improving the living and sanitary conditions, creating access for people with special needs and procuring inventory and equipment. In total, 21.86 million kroons are available from the European Regional Development Fund for the renovation. The biggest problems in the case of both the open youth centres and the information and counselling centres were the rise of building prices and complexity of project administration. In one case the local authority abandoned the renovation of a youth facility because it did not consider it possible to undertake obligations in connection with the implementation of the project. Solutions to budget increase due to increased building prices were found either through increasing the self-financing of local authorities or through increasing the contribution of ERDF. Seven facilities received national co-financing.

All told, there are approximately 160 open youth centres and information and counselling centres in Estonia, most of them needing investments. Less than 10% of them were renovated in 2004–2006. Therefore the renovation needs to continue also in the new programming period in order to ensure the provision of high-quality services.

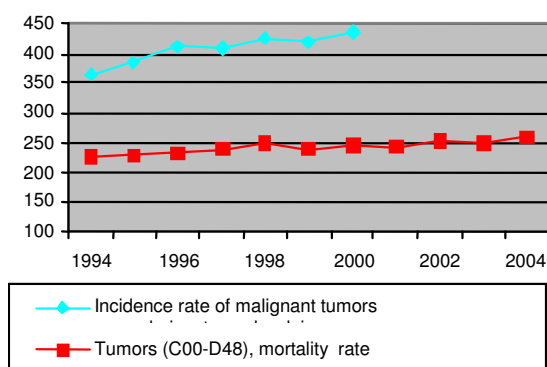
4.5. HEALTH AND WELFARE INFRASTRUCTURE

4.5.1 Health care

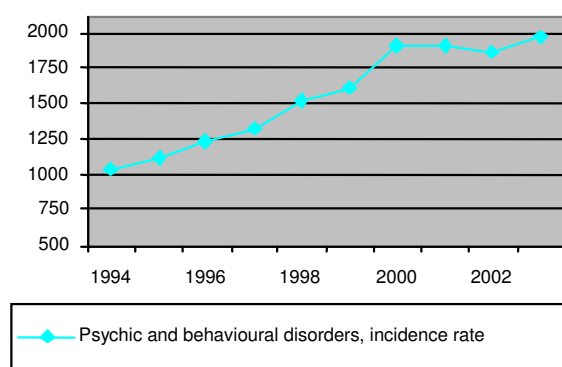
The task of the health and welfare system is to support the independent social and economic coping of people and create equal opportunities for all members of the society to participate in the labour market and social life. However, in each society there are people who are unable to participate in the labour market due to their high age, health status or other circumstances. Thus, the health and welfare system has an important role as the provider of supporting services in increasing social inclusion in the society and preventing and mitigating poverty and social exclusion

Although average life expectancy has risen year by year, the health status of the Estonian population is still considerably worse than in several other EU Member States and healthy life expectancy is 10 years lower than the EU average. This is expressed also in mortality and morbidity rates, which are several times higher in Estonia. For instance, mortality due to cardiovascular diseases is 3.5 times higher, mortality due to malignant tumors is 1.3 times higher and mortality due to external causes is 4.7 times higher in Estonia than the respective figures for the old EU Member States. Cardiovascular diseases, tumors and external causes are also the most widespread causes of death in Estonia. In 2004, average life expectancy was 66.25 years in men and 77.78 years in women. An increasing spread of chronic diseases can be projected in the structure of morbidity due to the ageing of the population. While the number of fatalities has fallen year by year, the number of injuries still shows a growing trend (Figure 9). Morbidity and mortality of cancer has increased both in men and in women (Figure 9). Tumors are the main causes of health loss of the Estonian population (17% of health losses due to illness), followed by skeletal and muscular diseases (16%), cardiovascular diseases (13%) and psychiatric diseases (10%). Also the incidence of psychic and behavioural disorders is increasing year by year (Figure 9). All these are diseases whose diagnosing and efficiency of treatment is significantly influencing the quality of life and coping of people. In addition, the growing distribution of chronic diseases poses different demands also on the health care system. Continuation of the current demographic and epidemiological trends and development of medicine and technology will lessen the need for hospital care and increase the need for primary medical services related to disease prevention and surveillance and treatment of chronic diseases.

Malignant tumors



Psychic and behavioural disorders



External causes

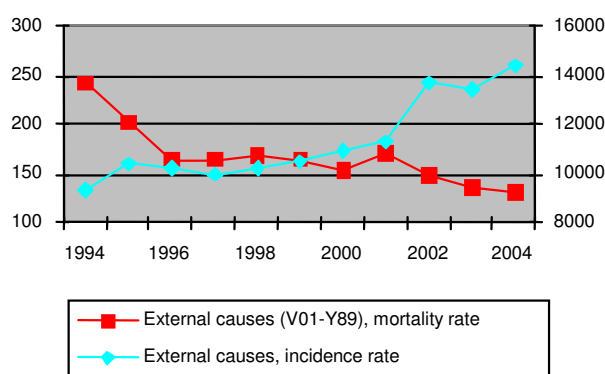


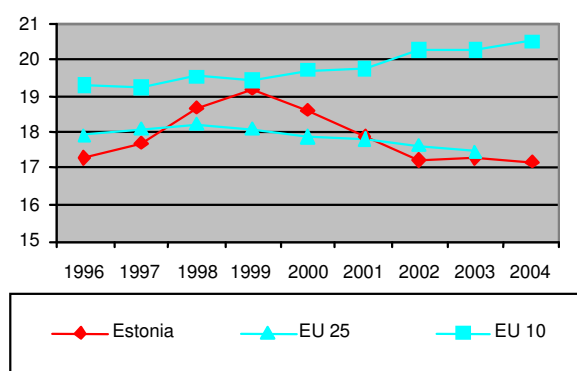
Figure 9. Trends in population morbidity and mortality, per 100 000 population

Source: Statistical Office; Ministry of Social Affairs

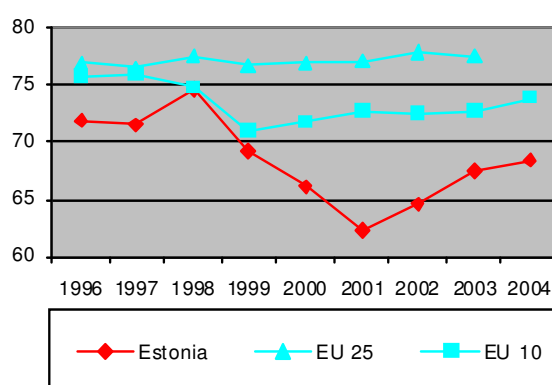
Estonia has a well-functioning system of health care financing, which ensures financial protection in the case of illness and access to the necessary health care services for most of the population. 94% of the Estonian population are covered by sickness insurance (Estonian Health Insurance Fund 2005). The health care system has undergone a significant restructuring, which has contributed to more efficient use of resources: a nationwide system of family physicians has been rolled out, the number of visits to family physicians has doubled and the number of hospital referrals and hospitalisations has decreased. Also the number of hospitals and beds has decreased year by year and the efficiency indicators of the acute care hospital network have reached the EU average level. At the same time, the number of people treated in day care and surgeries performed in day surgery has considerably increased. Yet the average bed occupancy of acute care hospitals still remains well under the EU average, which shows a potential for further increasing the efficiency of acute care (Figure 10).

Given the ageing population and increasing incidence of chronic diseases, the accessibility of nursing care and rehabilitation services is inadequately ensured. The accessibility of both home nursing care and day nursing care services is inadequate. The fall in the number of acute care beds has not been accompanied by an increase in the volume of nursing care services. Even though the volume of home and day nursing services has risen year by year, these services are not yet developed to the necessary extent either.

Number of hospitalisations per 100 000 population



Bed occupancy in acute care hospitals



Average duration of treatment in acute care hospitals

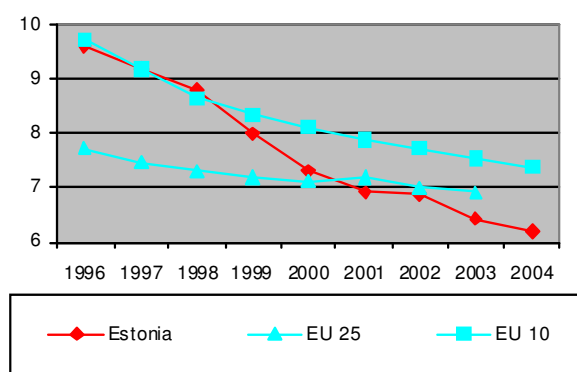


Figure 10. Key indicators of acute care hospital network

Source: WHO-Health for all database, 2005

This implies that many elderly people and people suffering from chronic diseases are currently not provided with nursing and care services tailored to their needs. In addition, the services provided are often of insufficient quality and do not meet the modern requirements and societal expectations due to the inadequacy of premises, trained personnel (nurses, caregivers) and financing of the services. Many nursing hospitals and welfare institutions are faced with an acute shortage of space and the standards are very low

The accessibility and quality of long-term care services is also limited due to the fact that welfare and health care systems are organised separately and financed from different sources. As the target group of nursing care and welfare services is largely overlapping (mostly people aged 65 and over) integration and better coordination of health and welfare services is needed to be able to respond to the different health and care needs of elderly and chronically ill people more effectively.

According to the Development Plan for the Estonian Nursing Care Network, the total projected need is 6600 places for long-term care, including nursing and welfare services. The estimation of need is based on the number of people aged 65 and older of whom 3% need long-term care services. According to the population projection of the Statistical Office, there were 221 011 people aged 65 and older in 2005 and the number is projected to increase to 223 181 by 2015 (Population Projection and Age Structure in Estonia until 2050, Population 2002, Statistical Office).

As of the end of 2004, there were 51 hospitals in Estonia, 18 of them being nursing hospitals. The number beds totalled 7850, with 1089 of them being nursing care beds. Nursing care services are provided not only by nursing hospitals but also by acute care hospitals. The National Register of Activity Licences contains the total of 43 providers of inpatient nursing care services. The costs of home nursing services and also the costs of inpatient nursing care for a limited duration of care (average duration 27 days) are covered by the health insurance scheme. In 2005, the Estonian Health Insurance Fund financed 10 347 cases of inpatient nursing care (2% more than in 2004) and 10 015 cases of outpatient nursing care (23% more than in 2004).

As health insurance budget for nursing care services is limited and does not cover the need for

long-term nursing care services, nursing care patients are currently taken care of also in welfare institutions, where the services are financed mostly by the clients themselves and/or their close relatives (50.3% of costs) and by local authorities (47.6% of costs). In 2005, there were 114 institutions providing care services for the elderly in Estonia, 74% of them are owned by municipalities. As of the end of 2005 there were 4479 people taken care of in welfare institutions.

Limited access to long-term nursing care services is causing inefficient use of both health care and welfare resources as some people needing long-term nursing care are currently taken care of in hospitals on acute care beds and in welfare institutions.

Furthermore it may have an adverse impact on employment. In 2005, there were 13 800 people (4% of total inactive population aged 15–69) not participating in employment due to the need to take care of children or other family members (this does not include pregnancy leave, maternity leave and parental leave). Thereby it is mainly women (91% of the respective group of inactive people) who withdraw from employment for this reason.

Table 3. Causes of inactivity in the age group 25-49 (thousands, annual average)

	2004	2005	2006
All causes	64,1	64,7	48,9
Studies	4,5	5,4	3,5
Illness or injuries	14,2	15,4	13,6
Pregnancy, maternity or parental leave	19,3	18,2	17
Need to take care of family members	10,5	10,6	8,5
Discouraged workers	8,9	8,5	2,9
Other causes	6,6	6,5	3,3

Source: Estonian Statistical Office

Among inactive population aged 25-49 the need to take care of children or other family members ranks third among all causes of inactivity (see table 3).

4.5.2 Social welfare

While the responsibility for adult general care service lies with local authorities, the welfare service for orphans and children without parental care and care for adults with special psychiatric needs is currently organised by the state.

The state currently owns 29 welfare institutions for children and for people with mental disorders. These are located across Estonia in 11 counties (4 in Harju, 3 in Lääne-Viru, 3 in Ida-Viru, 3 in Tartu, 3 in Viljandi, 2 in Põlva, 2 in Pärnu, 3 in Saare, 3 in Lääne, 1 in Jõgeva and 2 in Rapla County) and are administered by the county governments of their location.

While the number of children living in children's welfare institutions has gradually decreased, a slightly growing trend can be observed in the number of users of welfare service for adults

with special psychiatric needs (Table 4).

Table 4. Number of institutions providing and individuals using social welfare services 2002–2004

	Number of service providers (as of end of year)		Number of users of service (over the year)	
	2002	2005	2002	2005
Care for orphans and children without parental care (children's homes)	39/37	38	1881*/1539	1567**
Care for adults with special psychiatric needs	21*/71	86	2457*/4491	4901
incl. 24-hour care service, 24-hour care service with enhanced support and 24-hour care service with enhanced security	21	27	2457*/2413	2419

Source: Social Sector in Figures 2005

*Only institutional services were provided until 2002. Supporting services for people with special psychiatric needs were introduced in 2002 and the relevant data are presented only from 2003 onwards.

** Only children who are on state welfare services. Children with severe and profound disability, whose number was 116 in the year 2005, and who are in social welfare institutions on the basis of their parent's application, are not taken into account. Altogether the total number of children, who were on social welfare services, was 1683 in the year 2005.

In 2003 a research which handled the topic of poverty of children was conducted within the framework of social involvement measure of the European Union. As a result we can conclude from the study that poverty causes health problems of parents and negative health behaviour of the youth, also low education level of parents and low self esteem, the feeling of being different from others. Due to difficulties of subsistence, rejection, insufficient skills of parents or other reasons in our country every year about 1250 new children without parental care come into the attention of child protection workers. In case of adequate and well-timed intervention we can avoid another generation of rejected people.

If it is impossible for a child to grow among his or her biological family and the child needs to be put into child welfare institution, home-like forms of service should always be considered first. If more child-friendly forms (choosing the guardian or the service of guardianship within a family) of child welfare service cannot be applied, the child has to be provided the state child welfare service. According to the situation of 2006 there were altogether 1505 children using the state welfare service, out of whom 443 were disabled, 87 were infants (0-3 years) and 1172 children were in the age group of 3-18 and 794 children of them lived in state owned welfare institutions.

In point 2.5 of „The Strategy of Guaranteeing the Rights of Children”, which was approved on October 16, 2003 by the Government of the Republic (Guaranteed measures for providing necessary help and support to children without parental care), it is stated that child protection

organisation must support the growth of a child in a domestic environment, which is best for directing, guiding, taking care of and supporting a child. Consequently, when planning the future of child welfare service, we have concentrated on the customer-based approach – developing individualisation and subsidiarity. Creating for the children a development environment that is safe and supports health is important, since the basis of attitudes and behavioural habits is formed in a very young age and it affects the health condition as an adult and has an impact on chances to succeed then.

Whereas the number of children living in welfare institutions has decreased through years, there is a tendency in the welfare of grown-ups with mental special needs, according to which the number of clients increases. In 2004 there were approximately 103 000 people, including 5 300 children, who received the social benefits of disabled people, i.e. people with determined level of disability. On the basis of first and repeated estimations of 2004 statistics of medical expertise we can consider the importance of people with mental disorders to be 15-20% and the amount of people with moving disability among all disabled people is 40%.

Mental health is an inseparable part of the general health condition of people, which is effected by quality of life, subsistence, cultural environment, social processes and attitudes. According to different studies, the mental health of Estonians is in worse condition than among the people in other West and North European countries. Becoming ill with mental disorders has increased continually (see table 2) and regardless of the obvious decrease of the population the need for psychiatric services has constantly kept growing within the last ten years, especially the rate of occurrence of mood and anxiety disorders.

Table 5. The number of people who consulted the psychiatrist ambulatory, 2005

Profile	Number of people who consulted during the year	Out of them				Out of them first-time cases				
		children		Youth and grown-ups		Altogether	children		Youth and grown-ups	
		M	F	M	F		M	F	M	F
TOTAL, incl.:	121 695	7 275	3 331	47 673	63 416	29 003	2 935	1 537	10 910	13 621
Mental and behavioural disorders	112 097	6 933	3 085	42 895	59 184	25 585	2 761	1 411	9 700	11 713
Nervous system diseases	2 410	129	77	1 040	1 164	658	24	11	262	361
With epilepsy	972	31	29	526	386	73	5	2	48	18
Mentally fine	7 188	213	169	3 738	3 068	2 760	150	115	948	1 547

Source: homepage of Ministry of Social Affairs

Since the risk of having mental disorders is quite high among Estonians, it causes in the society a greater need for the welfare services offered to adults with special psychiatric needs. Based on the audit estimation of the „Institutions that offer state welfare services to people

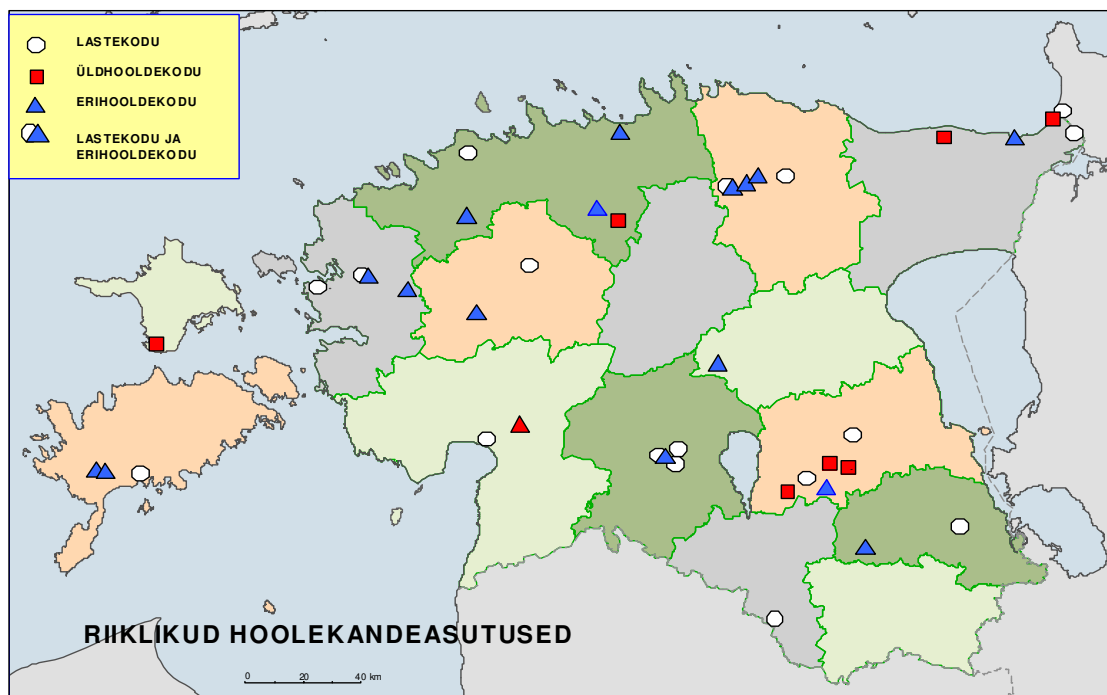
with special psychiatric needs” that was conducted in 2000/2001 there are approximately 7,000 people with serious or constant mental disorders in Estonia who need the services of special welfare. At the moment there is a queue for all special welfare services (in 2006 there were 4,533 service locations financed by the state, 407 received two services, the total number of people who received services was 4126). In the welfare institutions of the state meant for people with mental disorders were serviced 2297 people in 2004, 1910 out of them received three services round-the-clock (1608 clients received round-the-clock welfare service, 165 clients received round-the-clock welfare service with reinforced monitoring and 137 clients received round-the-clock service with reinforced welfare).

As a result of insufficient extent of services today an estimated 2000 people in their working age take care of their family members with mental disorders, so they must stay away from the job market. Creating new service locations will bring ca 460 places of work in the special care system.

Looking at the distribution of state welfare institutions on the map of Estonia, one can recognise that high-quality, effective and equally accessible welfare services cannot be provided to people on the basis of the existing welfare institutions, considering the changes in the Estonian society whereby the population and economic activity have concentrated in bigger centres and their hinterlands.

The development of welfare institutions for children and for adults with special psychiatric needs is today strongly constrained by their location (limited possibilities of finding qualified personnel and long distances from current regional centres, which hampers the access of people to public services, incl. educational, working, cultural and learning opportunities) and the fact that the existing facilities (big Soviet-time buildings) are morally out of date and meet neither the health protection requirements nor the modern welfare principles (e.g. family-type units for eight to ten people; maintenance of the privacy of people), which has been significantly aggravated by the limited volume of investments in the reconstruction or new construction of the buildings.

The modern society recognises the principle that states are to provide their citizens with social protection that gives them confidence for the future and a possibility to lead a decent life all through their lifetime. Social protection measures are divided into social insurance and welfare. Social welfare is a system of operations aimed at safeguarding different freedoms for individuals and, through developing the human resource, creating better conditions for economic development, while also increasing social inclusion and enhancing the extent and efficiency of preventing and mitigating poverty and social exclusion.



○ CHILDREN'S HOME ■ GENERAL CARE HOME ▲ SPECIAL CARE HOME ○▲ CHILDREN'S HOME AND SPECIAL CARE HOME

Figure 11. Location of current state welfare institutions

Source: Welfare Concept

The Welfare Concept completed in 2004 envisages a shift in welfare services towards the principle of subsidiarity in providing aid to citizens and the principles of client-centred welfare services, according to which welfare services are centred around an individual with his/her specific needs and the set of services/benefits provided is tailored to the specific individual and his/her surrounding environment.

Proceeding from the above, the current orientation is to follow the principles of close-to-home provision of services also in organising welfare services for children and for adults with special psychiatric needs, which means that a person should have access to these services in his/her home municipality, city or county. This will contribute to shifting from the current institution based welfare to family type welfare integrated into the living environment.

4.5.3 Experience with the use of structural instruments in the field of health and welfare in 2004–2006

Regarding the development of the hospital network, the operations to improve the structure of the hospital network launched under Measure 4.4 of the NDP/SPD entitled “Reorganisation of the hospital network” will continue also in 2007–2013. Reorganisation of two big regional hospitals started in 2004–2006 and construction of a new building of one central hospital was completed and the building commissioned. Implementation of the first stage of the regional hospitals’ infrastructure will make it possible to significantly optimise the number of hospital buildings and the use of space therein. Concentration of therapy in one building complex in these hospitals will allow also more optimal use of medical technology and personnel and

contribute to improving the services for patients.

The planned operations in the field of welfare represent a completely new initiative. Our goal in 2007–2013 is to improve the living and working opportunities of children and of young people and working age people with severe and long-term special psychiatric needs and learning opportunities of children and young people and provide them with better access to education, health and labour market services.

5 PRIORITY AXES

5.1 PRIORITY AXIS 1: DEVELOPMENT OF WATER AND WASTE MANAGEMENT INFRASTRUCTURE

5.1.1 Justification of need

According to Community Strategic Guidelines, the existence of modern environmental infrastructures is one of the key factors for turning Europe and its regions into attractive environments to live and invest. Construction of water supply, waste and wastewater infrastructures and decontamination of lands in order to prepare them for new economic activity are among the primary tasks in strengthening the synergy between environmental protection and growth.

The greatest challenges in the environmental sector of Estonia in 2007–2013, and also the most resource intensive ones for the state and local authorities, will be faced in the sub-sectors of water and waste management. Water management and waste management will be developed in a systematic and consistent manner on the basis of regional plans. Therefore the use of the CF, which is characterised by large projects requiring long preparation and implemented on the basis of a prior planned project pipeline, will be focused on these sub-sectors only. This approach will ensure the completion of work in preparing projects on the basis of the project pipeline launched in the pre-accession period with ISPA support, and continuity of work in implementing the projects, which started in 2004–2006 with support from the CF.

The priority axis “Development of water and waste management infrastructure” will implement the priority “Sustainable use of the environment” under the Estonian National Strategic Reference Framework 2007–2013. In the sub-sector of water management, the resources of the CF will be focused on securing a supply of adequate drinking water for the population and, on the other hand, on operations contributing to improving the ecological status of water bodies. The priority operations for solving the latter task are the creation of water protection infrastructures and remediation of contaminated sites posing a threat to the state of groundwater. In addition, the programme envisages the rehabilitation of inland water bodies, which will make it possible to combine the improvement of the biochemical and biological status of water bodies with improving the spawning conditions of migratory fish species, which is important for restoring the fish resources.

In developing waste management, CF support will focus on two key tasks – decontamination of oil shale waste dumps, which continue to pose a threat to groundwater, and construction of new environmentally sound landfills and closure and remediation of old environmentally hazardous landfills.

Implementation of the programmed water and waste management projects with CF support will make an important contribution to Estonia’s convergence with other EU Member States. The objectives under this priority axis and the target levels of indicators of progress toward achieving the objectives are in line with Estonia’s environmental commitments under the EU Accession Treaty.

5.1.2 Development of water management

5.1.2.1 Objectives and indicators

Development of water supply systems

Objective: Share of the population connected to public water supply has increased and drinking water from public water supply meets the requirements

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicators</i>				
Additional population connected to public water supply (public water supply systems with over 2,000 consumers)	Adequate drinking water as defined in Regulation No. 82 of 31 July 2001 of the Minister of Social Affairs “Quality and control requirements and analysis methods for drinking water” This indicator corresponds to the core indicator “Additional population served by water projects”. <i>Source: project implementation reports</i>	0 (2006)	25,000 (2010)	55,000 (2015)
Population supplied with adequate drinking water in result of reconstruction of water supply systems and treatment facilities (public water supply systems with over 2,000 consumers)	No of people connected to public water supply systems in settlements with population over 2,000 is ca 850,000 (2005) <i>Source: project implementation reports</i>	0 (2006)	25,000 (2010)	100,000 (2015)

Development of water protection infrastructure

Objective: The environment protected against the adverse effects of discharge of urban wastewater into receiving water bodies.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicators</i>				
Additional population connected to sewage systems (agglomerations of more than 2,000 p.e.)	This indicator corresponds to the core indicator „Additional population served by waste water projects”. People connected to sewage systems (agglomerations of more than 2,000 p.e.) ca 830,000 (2005) <i>Source: project implementation reports</i>	0 (2006)	25,000 (2010)	55,000 (2015)
Properly functioning wastewater treatment plants (agglomerations of more than 2,000 p.e.)	Waste water treatment complies with Regulation No. 269 of 31 July 2001 of the Government of the Republic “Requirements for Wastewater Discharged into Water Bodies or into Soil” <i>Source: Environmental Information Centre</i>	29 (2005)	49 (2010)	49 (2015)

Operations directed to achieving a good ecological status of water bodies

Objective: Status of water bodies has improved.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of rivers reopened for spawning migration of 25 longest salmonid rivers in Estonia	The rivers for rehabilitation have been selected on the basis of Regulation No. 73 of 15 June 2004 of the Minister of Environment “List of spawning grounds and habitats of salmon, brown trout, sea trout and grayling”. All of them belong also to Natura 2000 sites. <i>Source: project implementation reports</i>	6 (2005)	11 (2010)	17 (2015)

Clean-up of past contamination in former military and industrial sites

Objective: The main contaminated sites in former military and industrial areas localised

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of localised (treated) * contaminated sites	Localised (treated) contaminated sites of national importance according to the National Database of Contaminated Sites (current total number 75 hazardous contaminated sites) <i>Source: National Database of Contaminated Sites</i>	22 (2005)	37 (2010)	53 (2015)

* Spreading of contamination and immediate danger for the health of people and natural environment is being avoided

5.1.2.2 Operations to be supported

Development of water supply systems

- Construction and reconstruction of drinking water supply systems
- Construction and reconstruction of drinking water treatment plants

Development of water protection infrastructure

- Construction and reconstruction of wastewater collection systems
- Construction and upgrading of sewage treatment plants

Operations directed to achieving a good ecological status of water bodies

- Operations to secure a near-natural state, high water quality and supply of surface waters (rivers, lakes and coastal waters), including the removal of dams blocking the migration of migratory fish to their spawning grounds or construction of fish ladders
- Clean-up or decontamination of contaminated sites affecting the status of water bodies (both surface and groundwater)
- Operations to maintain the quality and supply of groundwater

Clean-up of past contamination in former military and industrial sites

- Clean-up, localisation and decontamination of contaminated sites

5.1.2.3 Beneficiaries

- Ministry of the Environment
- Local authorities
- Non-profit associations and foundations
- Companies

5.1.3 Development of waste management

5.1.3.1 Objectives and indicators

Closure and remediation of inadequate waste dumps of oil shale industry and oil shale based power industry

Objective: All environmentally inadequate waste dumps of oil shale industry and oil shale based power industry closed and remediated

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of environmentally inadequate industrial waste dumps closed and remediated	Closure and remediation of landfills not meeting the requirements established by Regulation No. 38 of 29 April 2004 of the Minister of Environment. Status of waste dumps is according to landfills register. <i>Source: project implementation reports</i>	Number of waste dumps in need of closure 11 (2006)	11 inadequate dumps closed but not all remediated yet (2009)	11 (2013)*

*Intervention will be completed before 2015

Closure of inadequate non-hazardous waste landfills

Objective: All environmentally inadequate non-hazardous waste landfills closed and remediated

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of environmentally inadequate non-hazardous waste landfills closed and remediated.	Closure and remediation of landfills not meeting the requirements established by Regulation No. 38 of 29 April 2004 of the Minister of Environment. Status of waste dumps is according to landfills register. <i>Source: project implementation reports</i>	Number of landfills in need of closure 39 (2006)	39 inadequate landfills closed but all not remediated yet (2009)	39 (2013)*

*Intervention will be completed before 2015

Construction of new landfills

Objective: An optimal network of regional non-hazardous waste landfills rolled out in Estonia

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of regional non-hazardous waste landfills in Estonia	In accordance with the requirements established by Regulation No. 38 of 29 April 2004 of the Minister of Environment and by the National Waste Management Plan <i>Source: Landfills Register</i>	5 (2006)	6 (2010)	7 (2015)

Reduction of waste generation and development of waste collection, sorting and recovery

Objective: Waste handling in compliance with international requirements is ensured, recovery of waste has increased and waste generation has decreased.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicators</i>				
Waste handling in compliance with internationally recognized environmental and health protection requirements (% of waste)	In compliance with the applicable legislation <i>Source: Environmental Information Centre</i>	15% (2004)	30% (2008)	100% (2009)*
Rate of recovery of solid waste (excl. oil shale and agricultural waste)	<i>Source: Environmental Information Centre</i>	30% (2004)	40% (2010)	60% (2015)
Share of biodegradable waste in total landfilled waste (%)	In accordance with the requirements established in §134 of the Waste Act. <i>Source: Environmental Information Centre</i>	50–60% (2004)	45% (2010)	30% (2015)

*Intervention will be completed before 2015

5.1.3.2 Operations to be supported

Closure and remediation of inadequate waste dumps of oil shale industry and oil shale based power industry

- closure and remediation of waste dumps of oil shale industry and oil shale based power industry

Closure of inadequate non-hazardous waste landfills

- Closure and remediation of landfills

Construction of new landfills

- Construction of new non-hazardous waste landfills

Reduction of waste generation, development of waste collection, sorting and recovery

- Establishment of waste recovery companies (incl. waste incineration and biological recycling)
- Establishment of waste stations (waste handling sites)
- Operations directed to reducing waste generation

5.1.3.3 Beneficiaries

- Local authorities
- Companies
- Non-profit associations and foundations
- Ministry of Economic Affairs and Communications
- Ministry of the Environment

5.1.4 Contribution to horizontal themes

Regional development

As a vast majority of the water and waste management projects prepared or being prepared will be implemented outside the capital region, investments in water and waste management have, in general, a regionally balancing impact, improving the living conditions of people and increasing the competitiveness of regions outside the capital region.

Environmental protection

All projects are directly aimed at improving environmental protection.

Development of information society

No impact.

Equal opportunities

In general, no impact.

Development of civil society

The non-governmental organisations (non-profit associations and foundations) are among potential beneficiaries of support provided for activities in the priority axis. This indirectly supports the development of civil society, as the receipt of Structural Assistance should contribute to the rise of the capacity of receiving organisations to plan, manage and evaluate projects and finances – thereby contributing to the increase of organisations' capacity to be

active in their respective area and development of partnership.

5.1.5 Major projects

According to the General Funds Regulation, major projects in the field of environmental protection are understood as projects with the total eligible cost of at least 25 million euros. The indicative list of major projects is as follows:

Water management

- Põltsamaa-Pedja water management project
- East Harju and Keila-Vasalemma water management project
- Vääna water management project
- water project of the municipalities of Viljandi County
- Lääne-Viru water management project
- water project of Pärnu sub-basin
- development of public water supply and sewerage in Pärnu city
- improvement of the ecological status of watercourses
- water project of the municipalities of Valga County
- clean-up of past contamination in former military and industrial sites
- drinking water project of Ida-Viru small settlements
- sewerage project of Narva, Narva-Jõesuu, Sillamäe, and 5 villages in Vaivara Municipality

Development of waste management

- closure of semi-coke dumps
- modernisation of ash removal system and sealing of ash field at Narva Power Plants

5.1.6 Linkages with other operational programmes and strategies

5.1.6.1 Linkages with other priority axes and operational programmes

The priority axis “Development of water and waste management infrastructure” is mutually complementary with the priority axis “Development of infrastructures and support systems for sustainable use of the environment”. Implementation of the two priority axes under the same operational programme enables good coordination between the priority axes.

In the framework of the Human Resources Development Operational Programme, the current priority axis is related to the priority axes “Development of environmental education and awareness” and “Strengthening of administrative capacity”, which are expected to have a positive impact on, in particular, the situation in waste management (source separation, reduced littering of landscapes).

Development of water and waste management infrastructure will contribute to the Operational Programme for Development of the Economic Environment by improving the business environment both through reducing external costs for companies and creating more favourable living conditions for workforce.

5.1.6.2 *Connections with priorities under the National Strategic Reference Framework for structural instruments 2007–13*

The priority axis “Development of water and waste management infrastructure” will implement the priority “Sustainable use of the environment” under the National Strategic Reference Framework 2007–2013.

5.1.6.3 *Connections with Community Strategic Guidelines*

The priority axis “Development of water and waste management infrastructure” will implement the guideline entitled “Making Europe and its regions more attractive places to invest and work” or, more specifically, its subsection 4.1.2: “To strengthen the synergy between environmental protection and growth”. The essence of the priority axis is in line with the priorities specified in this subsection: provision of environmental services (waste and wastewater treatment infrastructure) and decontamination of land to prepare it for new economic activity.

5.1.6.4 *Connections with the Estonian Action Plan for Growth and Jobs 2005–07 and the Lisbon Strategy*

The priority axis “Development of water and waste management infrastructure” will implement Objective 6 of the Estonian Action Plan for Growth and Jobs 2005–07: “Strengthening of synergy between environmental protection and growth”. Measure 6.2 of the Action Plan: “Reduction of pollution load and ensuring of sustainable use of natural resources” provides, among others, for activities supporting the development of environmental infrastructure and clean-up of past contamination by drawing up water and waste management plans and organising and co-financing infrastructure construction projects and reduction of past contamination, which is the essence of also the current priority axis.

5.1.6.5 *Linkages with other national development plans and policies, incl. the Estonian Rural Development Plan 2007–13 and Estonian Operational Programme of the European Fisheries Fund 2007-2013*

The priority axis “Development of water and waste management infrastructure” will implement the objective “Ecological balance” under the sustainable development strategy “Sustainable Estonia 21”. One of the components of this objective is reduction of pollution, which the current priority axis is directly aimed at.

Investments in the development of water and waste management infrastructure will directly contribute to achieving the following objectives of the Estonian Environmental Strategy 2030 (submitted to the Parliament):

- to reduce the landfill of generated waste by 30% by 2030 and achieve a significant reduction in the hazardousness of waste generated;
- to achieve a good ecological status of surface waters (incl. coastal waters) and groundwater and maintain the ecological status of water bodies that have already achieved a good or very good status.

Water management investment projects will be prepared in accordance with sub-basin water management plans. Waste management investment projects are in line with the National Waste Management Plan and county waste management plans.

Investments under this priority axis will work in the same direction as the National

Environmental Programme of the Environmental Investment Centre, which can provide co-financing for projects supported by the EU.

Achievement of a good ecological status of water bodies will be facilitated by the Estonian Rural Development Plan 2007–2013, which will promote organic farming, environmentally sound management and the use of best available techniques in agriculture through continuing the rehabilitation of land improvement systems, creating protection forests in water protection zones and promoting environmental awareness and active life style of agricultural producers, thereby reducing agricultural pollution. Potential overlapping in the waste recovery area with supporting agricultural producers' bioenergy projects under the Rural Development Plan will be prevented by the implementation system using information exchange between the implementing bodies.

Rehabilitation of inland water bodies will improve the chances of recovery of migratory fish stock, which will contribute to the objectives of the Estonian Operational Programme 2007-2013 for the European Fisheries Fund. Overlapping of operations is prevented as the EFF support will only be directed in this area to rehabilitation of the spawning grounds and not migration routes for migratory fish – which will be dealt with under this OP axis. Rehabilitation of the spawning grounds is not foreseen to be supported in the course of rehabilitation of rivers funded under the present programme.

5.2 PRIORITY AXIS 2: DEVELOPMENT OF INFRASTRUCTURES AND SUPPORT SYSTEMS FOR SUSTAINABLE USE OF THE ENVIRONMENT

5.2.1 Justification of need

The potential synergy between environmental protection and growth cannot be strengthened just by developing environmental protection services as assembled under the priority axis “Development of water and waste management infrastructure” in this Operational Programme. According to Community Strategic Guidelines, it is equally important to ensure that natural resources are managed in a sustainable manner and protected from various risks. The current priority axis has been prepared in order to solve these tasks and also to implement the priority “Sustainable use of the environment” under the National Strategic Reference Framework. The priority axis will be co-financed from ERDF. Operations under the priority axis will contribute to sustainable management of natural resources through:

- maintaining biological diversity,
- developing the environmental education infrastructure,
- improving the environmental monitoring capacity and
- improving the environmental supervision capacity.
- The priority axis will also cover operations to improve preparedness for environmental emergencies in order to prevent and control risks.

Operations in all the above sub-sectors will be focused on solving the tasks identified as priorities in the analysis of the current situation.

5.2.2 Maintenance of biological diversity

5.2.1.1 Objectives and indicators

Objective: Favourable status of threatened species, habitat types and protected landscapes, as well as rehabilitation of wild animals in need of assistance ensured

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of procured machinery items for restoration and maintenance of seminatural communities	Tractors, movers, reedbed movers, choppers Source: project implementation reports	Not applicable	10 (2010)	25 (2015)
Area of restored habitats and landscapes	Area of restored habitats and landscapes Source: project	Not applicable	500 ha (2010)	1000 ha (2015)

Indicator	Explanation	Current level	Reference level	Target level
	implementation reports			
Area where non-native species population have been reduced	Area where colonies of non-native species have successfully been reduced Source: project implementation reports	Not applicable	1000 ha (2010)	1200 ha (2015)
<i>Impact indicator</i>				
Status of threatened species and habitat types (assessment of status)	As defined in Council Directive 92/43/EEC (Art. 1e and Annex I) and §3 of the Nature Conservation Act <i>Report for European Commission</i>	Will be determined in accordance with Commission guidelines "Assessment, monitoring and reporting under Article 17 of the Habitats Directive"	The status of none of the threatened species and habitat types has declined (2010)	The status of none of the threatened species and habitat types has declined (2015)

5.2.1.2 Operations to be supported

Preparation and implementation of management plans for protected areas and action plans for threatened species

- Preparation of management plans and action plans along with carrying out the preparatory applied studies and inventories
- Implementation of management plans and action plans, incl. restoration of seminatural communities a.o. threatened habitats, restoration of the habitats of threatened species, restoration of the populations of threatened species; control of non-native species
- Assessment of the effectiveness of implementation of the plans and analysis of monitoring data

Establishment and maintenance of nature conservation infrastructure in protected areas

- Establishment or reconstruction of infrastructure necessary for the maintenance or restoration of habitats
- Procurement of equipment and livestock necessary for the maintenance or restoration of habitats

- Establishment or reconstruction of infrastructure creating visitor opportunities
- Creation of infrastructure and procurement of equipment necessary for the administration of nature conservation
- Restoration of favourable status of protected landscapes
- Development of infrastructure to help wild animals and birds in helpless state

5.2.1.3 Beneficiaries

- Environmental Board
- State Forest Management Centre
- Non-profit associations and foundations engaged in nature conservation by their statute
- Local authorities and local authority associations

5.2.3 Development of environmental education infrastructure

5.2.3.1 Objectives and indicators

Objective: Environmental education support centres have been created or modernised in all counties in the frames of the national network to be developed.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of support centres rolled out	At least one centre in each county. The requirements for the centres and the prospective network will be defined in the course of preparing the aid allocation <i>Source: Project implementation reports</i>	Not applicable because the requirements have not been defined	5 (2010)	15 (2015)

5.2.3.2 Operations to be supported

- Development of a network of environmental education support centres

5.2.3.3 Beneficiaries

- Environmental Board
- State Forest Management Centre
- Estonian Natural History Museum

- Local authorities
- Institutions managed by local authorities
- Institutions of higher education or establishments of the institutions of higher education
- Institutions managed by the Ministry of Education and Research
- Non-profit associations and foundations

5.2.4 Development of environmental monitoring

5.2.4.1 Objectives and indicators

Objective: Monitoring of the living environment in line with common general principles of the EU.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicators</i>				
Presence of adequate monitoring systems in the areas of biodiversity, soil, surface water, groundwater and coastal sea monitoring	Requirements of the Framework Directive on Water Policy 2000/60/EC, Dangerous Substances Directive 2006/11/EC, Birds Directive 79/409/EC, Habitats Directive 92/43/EC and Soil Directive 86/278/EC and HELCOM recommendations <i>Source: Survey by Ministry of Environment</i>	The current level does not fully meet the requirements of EU directives and Estonian legislation concerning the organisation of monitoring	80% (2010)	100% (2015)
Presence of adequate monitoring programmes at the local authority level	In accordance with the legislation <i>Source: Survey by Ministry of Environment</i>	Estimated at 30% (2006)	40% (2010)	100% (2015)

Objective: Regular production and public dissemination of environmental information.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
-----------	-------------	---------------	-----------------	--------------

<i>Impact indicator</i>				
Satisfaction of the users of the environmental information system (based on the Environmental Register)	Ascertained through web-based feedback	Not applicable	40% (2010)	67% of respondents (2015)

5.2.4.2 Operations to be supported

Creation of a monitoring system at the national, county, local authority and company level

- Preparation of monitoring programmes in harmony with environmental action plans at all levels.

Creation of a rational and flawless environmental monitoring network

- Application of new methods for increasing the quality and frequency of monitoring;
- Application of uniform methodologies at all levels of monitoring and upgrading of equipment to ensure the sensitivity of analysis; implementation of a quality and control system at all levels;
- Upgrading of monitoring programmes for air, water, soil and biodiversity, taking into account the requirements of directives, conventions, etc.

Creation of a uniform computerised information system

- Identification of information technological solutions to ensure and enhance the capacity of the Environmental Register;
- Creation of a client-friendly system for the transmission, use and storage of monitoring data in the Environmental Register.

5.2.4.3 Beneficiaries

- Local authorities
- Ministry of the Environment
- Environmental board
- Estonian Environmental Information Centre
- Estonian Meteorological and Hydrological Institute
- State companies
- Non-profit associations and foundations

5.2.5 Improvement of preparedness for environmental emergencies

5.2.5.1 Objectives and indicators

Marine pollution

Objective: Capacity for detecting and cleaning up marine pollution has been increased.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of marine spill containment vessels procured	HELCOM Recommendation 11/13 establishes 4.5 km² of sea area for marine spill containment capacity within 12 h as a minimum. One vessel (and Estonia has presently one vessel) ensures a capacity of 0.6 km². <i>Source: project implementation reports</i>	0 (2006)	0(2010)	2 (2015)
<i>Result indicator</i>				
Capacity for cleaning up coastline pollution in km within 48 hours (in daylight time)	<i>Source: State Rescue Board</i>	1.0 (2006)	1.5 (2010)	2.0 (2015)

Other emergencies

Objective: Pollution load from emergencies to the environment has decreased.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicators</i>				
Number of up-to 600-ha large forest, landscape and ground fires that can be simultaneously localised and extinguished	Shows directly the capacity for extinguishing forest, landscape and ground fires. Simultaneous extinguishing of several extensive forest fires is possible in case the area of none of the fires exceeds the critical limit. Simultaneous extinguishing of several over 600-ha fires is not possible. <i>Source: State Rescue Board</i>	2 (2005)	2.5 (2010)	3 (2015)
Time needed for starting rescue work in poorly accessible areas (small islands,		360 min (2005)	250 min (2010)	180 min (2015)

Indicator	Explanation	Current level	Reference level	Target level
forests, bogs and other wetlands	<i>Source: State Rescue Board</i>			

5.2.5.2 Operations to be supported

Enhancement of capacity for monitoring and clean-up of marine pollution

- Enhancement of spill response capacity through improving the infrastructure and procurement of gear and equipment (incl. containment vessels)
- Procurement of coastal spill response equipment
- Procurement of remote sensory monitoring equipment for pollution monitoring aircraft
- Setting up of a field hospital for birds along with the necessary installations and procurement of vehicles necessary for the functioning of logistics
- Organisation of training for organising marine spill response in connection with the above operations.

Enhancement of preparedness for major accidents on land

- Procurement of equipment for repair of damages caused by natural disasters
- Procurement of equipment for extinguishing forest, landscape and ground fires
- Procurement of special gear and equipment for increasing the capacity for rescue work in poorly accessible areas (small islands, forests, bogs and other wetlands)
- Procurement of equipment for response to industrial, transport and oil product accidents (incl. hazardous substances related accidents)
- Procurement of a logistic supply and means of command (incl. IT) for major accidents and construction/reconstruction and furnishing of infrastructure
- Procurement of means for localising and cleaning up oil product pollution on land and inland water bodies
- Organisation of training related to the above operations

5.2.5.3 Beneficiaries

- Police and Border Guard Board
- Rescue Board
- Other organisations to be engaged in emergency response (training)

5.2.6 Development of environmental supervision

5.2.6.1 Objectives and indicators

Objective: Improved environmental supervision capacity of the Environmental Inspectorate

Indicators:

<i>Indicator</i>	<i>Explanation</i>	<i>Current level</i>	<i>Reference level</i>	<i>Target level</i>
<i>Output indicator</i>				
Number of constructed and operational environmental supervision management centres.	<i>Source: project implementation reports</i>	Not applicable	1 (2011)	2 (2013)

‘ Intervention will be completed before 2015

5.2.6.2 Operations to be supported

- Renovation, reconstruction and construction of infrastructure required for operational management of environmental supervision and for respective training
- Procurement of vehicles fitted with special equipment for implementing the sampling scheme (sampling gear, balances and other measuring equipment)
- Procurement of weather-proof computers and means of communication for ensuring operational access to databases
- Procurement of video and photographic equipment for recording evidence for offence proceedings
- Procurement of special gear
- Information technology development, and development and procurement of a support system for information technology solutions (incl. servers, software and licenses)
- Training associated with the implementation of equipment and information technology solutions.

5.2.6.3 Beneficiaries

- Environmental Inspectorate

5.2.7 Contribution to horizontal themes

Regional development

Investments in protected area infrastructure will, in general, have a balancing impact, improving the living conditions of people and increasing the competitiveness of regions outside the capital region. Other operations have no clearly expressed impact on regional development.

Environmental protection

A vast majority of environmental investments from the ERDF are directly aimed at improving environmental protection.

Development of information society

Fostering impact on information society will come first of all from the development of environmental monitoring, under which a common computerised environmental information system will be developed.

Equal opportunities

In general no impact

Development of civil society

The non-governmental organisations (non-profit associations and foundations) are among potential beneficiaries of support provided for activities in the priority axis. This indirectly supports the development of civil society, as the receipt of Structural Assistance should contribute to the rise of the capacity of receiving organisations to plan, manage and evaluate projects and finances – thereby contributing to the increase of organisations' capacity to be active in their respective area and development of partnership. .

5.2.8 Major projects

None.

5.2.9 Linkages with other operational programmes and strategies

5.2.9.1 *Linkages with other priority axes and operational programmes*

The priority axis “Development of infrastructures and support systems for sustainable use of the environment” is mutually complementary with the priority axis “Development of water and waste management infrastructure”, forming a framework for financing those environmental protection sub-sectors that are not funded from the CF: maintenance of biological diversity, development of environmental awareness, strengthening of preparedness for environmental emergencies, etc. In particular the improvement of monitoring and awareness will facilitate the desired developments in waste management.

The current priority axis interlinked also with the Operational Programme for Development of the Economic Environment through the development of nature tourism. While the latter Operational Programme focuses on provision of support to business operators, the Living Environment Development Operational Programme will help to develop visitor sites and supporting infrastructures owned by the public and third sector.

The priority axis “Development of infrastructures and support systems for sustainable use of the environment” has a nature tourism related contact area also with the priority axis “Integral and balanced development of regions” of the current Operational Programme. Therefore the implementation rules for the Operational Programme will establish a clear division of work between the protected area management authority and local authorities in this issue in order to avoid overlap between support measures. The operations are divided between the two priority axes according to their beneficiaries. The operations of local authorities will be supported only in the framework of “Integral and balanced development of regions”, while the operations of the State Nature Conservation Centre will be financed under “Development of infrastructures and support systems for sustainable use of the environment”.

Of the priority axes under the Human Resources Development Operational Programme, the current priority axis is related to “Development of environmental education and awareness” and “Strengthening of administrative capacity”. Development of environmental education infrastructure is planned under the current Operational Programme. The priority axis

“Strengthening of administrative capacity” will contribute, among others, to the introduction of environmental management systems in the public sector.

5.2.9.2 *Connections with priorities under the National Strategic Reference Framework for structural instruments 2007–13*

The priority axis “Development of infrastructures and support systems for sustainable use of the environment” will implement the priority “Sustainable use of the environment” of the National Strategic Reference Framework 2007–2013.

5.2.9.3 *Connections with Community Strategic Guidelines*

The priority axis “Development of infrastructures and support systems for sustainable use of the environment” will implement the guideline entitled “Making Europe and its regions more attractive places to invest and work” or, more specifically, its subsection 4.1.2: “To strengthen the synergy between environmental protection and growth”. The essence of the priority axis is related to the management of natural resources and reduction of environmental risks, which are identified as priority tasks in the Guidelines.

5.2.9.4 *Connections with the Estonian Action Plan for Growth and Jobs 2005–07 and the Lisbon Strategy*

The priority axis “Development of infrastructures and support systems for sustainable use of the environment” will implement Objective 6 of the Estonian Action Plan for Growth and Jobs 2005–07: “Strengthening of synergy between environmental protection and growth” by supporting the maintenance of biological diversity through conservation development activities that are foreseen under the measure 6.1 “Increasing environmental awareness”.

5.2.9.5 *Linkages with other national development plans and policies, incl. the Estonian Rural Development Plan 2007–13 and Estonian Operational Programme of the European Fisheries Fund 2007-2013*

The priority axis “Development of infrastructures and support systems for sustainable use of the environment” will implement the objective “Ecological balance” under the sustainable development strategy “Sustainable Estonia 21”, contributing to the maintenance of biological diversity and natural areas.

The operations under the priority axis “Development of infrastructures and support systems for sustainable use of the environment” will directly contribute to achieving the following objectives of the Estonian Environmental Strategy 2030 (submitted to the Parliament):

- to ensure the good status and species diversity of fish populations and prevent the negative impacts of fishing on ecosystems;
- to maintain coherent and multifunctional landscapes;
- to ensure the existence of habitats and communities necessary for the preservation of viable populations of species;
- to ensure the safety of the population and protection of the population against threats to their security.

The priority axis “Development of infrastructures and support systems for sustainable use of the environment” works in the same direction as the National Environmental Programme of

the Environmental Investment Centre, which has the following sub-programmes:

- Environmental Management Programme
- Nature Conservation Programme
- Forestry Programme
- Fish Resources Programme
- Environmental Awareness Programme
- Regional Programme.

The objectives and types of actions planned to be implemented in the area of capacity for extinguishing marine pollution are in line with the framework of the HELCOM Baltic Sea Action Plan that is under preparation.

The Estonian Rural Development Plan 2007–2013 is in many ways complementary to the current priority axis. Provision of support to the maintenance of seminatural communities outside agricultural lands will be expanded compared to the period 2004–2006. The loss of forest revenue due to the application of nature conservation restrictions in forests located in Natura 2000 Special Areas of Conservation will be compensated for as a new measure. Overlapping of support with the Estonian Rural Development Plan 2007–2013 in the nature conservation area is prevented by the following:

- Under the current axis only single-time activities to restore semi-natural communities, will be supported;
- Only under the current priority axis it is possible to apply for support to conservation activities on state owned land;
- The Rural Development Plan will provide regular support for maintenance of semi-natural communities on agricultural lands.
- Prevention by the implementation system using information exchange between the implementing bodies.

The Estonian Operational Programme of the European Fisheries Fund 2007-2013 foresees that within the strategies of local groups established in the fisheries areas, the EFF priority axis 4 may support protection of environment in the recognised fisheries areas as well as re-establishment of the production potential in the fisheries sector when damaged by natural or industrial disasters. The present priority axis deals mainly with improving the marine pollution fighting capacity of the state services (Border Guard and the Rescue Board). The demarcation line will be, thus, according to beneficiaries, incl. in the area of training for monitoring and extinguishing of pollution. Under the present priority axis no support will be given to activities under the integrated strategy of EFF local groups. Overlapping will be prevented by the implementation system using information exchange between the implementing bodies.

Improving environmental supervision capacity under the present priority axis will not include activities targeting fisheries control and inspection which are funded by the Community financial measures for the implementation of the CFP and in the area of the Law of the Sea (Council Regulation (EC) No 861/2006).

5.3 ***PRIORITY AXIS 3: DEVELOPMENT OF ENERGY SECTOR***

5.3.1 Justification of need

This priority axis is one of the three priority axes implementing the priority “Sustainable use of the environment” under the National Strategic Reference Framework. Support under this priority axis will be provided to operations reducing the adverse environmental impacts of the energy sector – the sector responsible for the highest pollution load among the economic sectors of Estonia.

The load of pollutant and greenhouse gas emissions from power production will be reduced both by minimizing losses in the production, transmission and final consumption of energy and by introducing environmentally friendlier power production technologies and pollution control equipment. Estonia holds the opinion that energy restructuring should continue to be stimulated mainly by fiscal and administrative instruments, while direct investment support should be limited to correcting market failures. It is therefore important to establish in identifying the operations to be supported whether there exist market failures related to energy conservation in housing and district heating systems, in particular lower capacity ones, or related to the construction or reconstruction of lower capacity power plants and boiler plants.

The structure of Estonia’s power production capacities needs to be rationalised to cover peak loads and reduce the concentration of power production. This will be achieved by establishing combined heat and power production capacities in areas with a heat demand and setting up renewables based power production facilities and peak load capacities.

In most cases there is no need to support the construction of power stations producing electricity and/or heat from renewable sources of energy but there are often problems with grid connection of production capacities and financing of the construction of small and distributed power production facilities.

The renovation of smaller-scale district heating networks and establishment or conversion of smaller boiler plants need to be supported in order to increase the share of renewable sources of energy in heat production, secure a heat supply for consumers at minimum possible prices and ensure sustainable use of energy resources.

Introduction of new technologies and diversification of the energy resources used in Estonia needs to be facilitated through supporting local research and development and technology transfer and establishing operational and cost effective demonstration facilities supporting distributed production of both electricity and heat in order to trigger the use of similar facilities in the near future with no further investment aid.

Transportation fuels make up 1/3 of all primary energy resources consumed. In order to reduce dependence on imported transportation fuels and ease pressure on the environment, the use of liquid biofuels has been promoted in Estonia since the end of 2005 through applying an exemption from excise duty to biofuels used in transportation and the first biofuel permits have been issued. As the price differences between regular and biofuels are relatively small and there is a great deal of insecurity associated with the launch of new products, biofuels have not yet achieved the expected market share. To ensure the use of renewable fuels and hydrogen in the transport sector, it is important to stake on extensive information dissemination and presentation of positive practical solutions (e.g. conversion of some

transport firms to renewable fuels or hydrogen). The aim is to achieve at least the levels provided in the EU directives and ensure commercial availability of hydrogen vehicles.

Timely implementation of Estonia's commitments in the field of ambient air protection and mitigation of climate change requires companies to make significant expenditures on technological improvements and procurement of pollution control equipment. Although the state is directing the reduction of pollutant emissions into the ambient air from point pollution sources and the improvement of ambient air quality through pollution permits and pollution charges, the use of investment support can be considered also here in some cases.

Block houses, which make up 2/3 of the housing stock, need energy mapping and reconstruction and their energy efficiency needs to be improved. The state should contribute to the introduction of the practice of energy audits. State stimulation through small catalyst grants is particularly necessary in the case of comprehensive renovation activities entailing full modernisation of buildings (i.e. not only the reconstruction of building envelopes but also the renovation or readjustment of utility systems of buildings).

The volume of residential buildings constructed within the last decade is significantly below the average construction volume in 1950–1989 and the houses built half a century ago are already approaching the end of their designated useful life. Even though they may not be directly threatened with destruction, the block houses need renovation. Delaying of reconstruction works will worsen the condition of the houses and lead to increased expenditures in future. In the period 2006–2010, nearly 3300 residential units in multi-storey block houses need to be reconstructed per year (ca 150 000 square metres annually). The need for reconstruction will increase manifold in the next decade (being estimated at over 8000 apartments or over 350 000 square metres per year in 2010–2014 and even higher in the following decades) due to the sharp growth of residential construction in the 1960s and 1970s. Thus, it is nationally important to direct the private sector toward investing more actively and as early as possible in the reconstruction of the housing stock.

The heating, ventilation, cooling, lighting and hot water supply of residential buildings consumes a significant amount of energy. Although the energy consumption of residential buildings is not handled separately in statistics, expert assessments have suggested that the heating demand of residential buildings makes up 40–50% of the energy and heat supplied to final consumers. The general rise in the prices of energy carriers in the last two years has made the issue of improving the energy efficiency of the Estonian housing stock more acute than ever. More active and aware house owners have already found possibilities for reconstructing their houses and improving their energy efficiency but this behaviour would need to be further expanded. Thus, combining of the reconstruction support measure with energy conservation issues is important not only in terms of improving the quality of the housing stock but also in terms of reducing the maintenance costs of the housing stock.

A fall in housing quality due to the depreciation of the housing stock of Estonia, the rise of residence costs (incl. fuel prices) and the obligations resulting from the European legal environment have led to the emergence of the issue of improving the energy efficiency of the housing stock. As the majority of the Estonian housing stock has reached the limit of its useful life and is both physically and morally worn-out, average energy consumption per square meter is higher in the residential buildings of Estonia than in other EU member states. This indicator is around 220 kWh/m² in Estonia, while it is less than 150 kWh/m² in Finland and Sweden. According to expert assessments, proper reconstruction and renovation of a block house can yield, on an average, a 20–30% energy saving, which may mean an annual financial saving of up to 0.5 billion kroons for Estonia as a whole.

In order to improve the condition and energy balance of the housing stock, support is provided to apartment and housing associations and apartment owners' communities for the performance of reconstruction work (incl. accompanying works) in line with the Estonian Housing Development Plan 2008-2013. The objective of operations is to improve the energy efficiency of the housing stock by at least 20% and to enable the use of renewable energy in existing block houses by improving the availability of loan capital. Support is provided to reconstruction of block houses through the planning of integral solutions where the construction works recommended in energy audits are planned in an integrated manner to achieve the best result. Support for renovation of block houses contributes to the performance of reconstruction of the main structures and to the modification and replacement of heating and ventilation systems in block houses erected before 1993, while also motivating associations to install renewable energy utilisation equipment. The activities implemented motivate the owners of multi-storeyed block houses to focus more on improving the energy efficiency of their houses and to invest in the reduction of the amount of energy consumed by the housing stock (app. 40% of the total energy consumption).

The majority of the activities related to the management and maintenance of block houses in Estonia are performed by the residents (96% of the entire housing stock is private owned), who lack the necessary knowledge and professional skills. The decisions made are therefore often inadequate from the point of view of improving the technical condition, energy efficiency and sustainability of the houses and low quality materials and labour are often used. The problem is particularly acute in residential areas of cultural and environmental value, where the general mistakes due to the lack of knowledge are accompanied by the loss of uniqueness and value of the area. It is essential for sustainable maintenance and development of the housing stock to pay more attention to educating and informing people of various housing issues. In order for the reconstruction and renovation works aimed at improving the energy efficiency of block houses to be conducted reasonably and competently, it is important to improve the efficiency of information and training activities for different target groups involved in the management and maintenance of block houses. The support activities will be directed to raising the awareness of people engaged in the maintenance and management of residential buildings through the relevant training and information activities and information campaigns on the energy efficiency of residential buildings. Over 4000 association leaders and property managers have been trained in 2003–2006 but the training activities so far need to be continued in a more intensive and extensive manner.

5.3.2 Broader use of renewable energy sources and protection of ambient air

5.3.2.1 Objectives and indicators

Broader use of renewable energy sources for power production

Objective: Growth of the share of renewable energy sources in the energy balance.²

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Impact indicators*</i>				
Capacity of electricity production from renewable energy sources GWh	The target level proceeds from the targets of the Estonian Energy Development Plan 2005–2015. <i>Source: Statistics Estonia</i>	110 (2005)	440 (2010)	491 (2015)
Capacity of heat generation in CHP and boiler houses from renewable energy sources GWh	The target level proceeds from the targets of the Biomass and Bioenergy Development Plan 2007-2013. <i>Source: Statistics Estonia</i>	2246 (2005)	3154 (2010)	3680 (2015)

* No unambiguous output or result targets can be set in ex-ante perspective to these indicators, as the relative shares of different types of projects (e.g. the exact shares of cogeneration plants (and the share of different fuels used in them) and renewable energy projects) to be funded cannot be determined in advance due to the open call procedure to be used under the measures. Result indicator of "Additional capacity of renewable energy production (MWh)" (corresponding to the relevant core indicator) will be monitored and reported throughout the programme period without establishing targets beforehand.

Use of alternative sources of energy in transport

Objective: The use of alternative transportation fuels is expanding year by year.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Impact indicator</i>				
Share of biofuels in transportation fuel consumption (based on the energy value)	The operations to be supported will contribute to achieving the reference level and target level. The reference level coincides with the EU indicative target under Directive 2003/30/EC and the target level coincides with the EU target according to the European Council conclusions. <i>Source: Statistics Estonia</i>	0% (2005)	5.75% (2010)	8% (2015)

² On 13 May 2010 Estonian government decided to transfer the part of resources initially foreseen for the promotion of this objective into other areas of development. Nevertheless, Estonian authorities commit themselves to fulfill these objectives with other national resources and regulatory measures. Therefore, the objectives and indicators of the original OP remain valid even after the transfer of ERDF resources and the monitoring of the fulfilment of these objectives continues.

Ambient air protection and mitigation of climate change

Objective: Emissions of air pollutants from the power system have decreased.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Impact indicator*</i>				
Capacity of electricity production from combined heat and power plants GWh	The target level proceeds from the targets of the Estonian Energy Development Plan 2005–2015. <i>Source: Statistics Estonia</i>	1038 (2005)	1294 (2010)	1733 (2015)

* No unambiguous output or result targets can be set in ex-ante perspective to these indicators, as the relative shares of different types of projects (e.g. the exact shares of cogeneration plants (and the share of different fuels used in them) and renewable energy projects) to be funded cannot be determined in advance due to the open call procedure to be used under the measures. Result indicator of "Additional capacity of renewable energy production (MWh)" (corresponding to the relevant core indicator) will be monitored and reported throughout the programme period without establishing targets beforehand.

5.3.2.2 Operations to be supported

Broader use of renewable energy sources for power production

- Investment support for establishing heat and/or power plants and boiler plants using renewable energy sources and cogeneration plants intended for covering peak loads of the energy network and ensuring the supply security of wind energy
- Investment support for establishing heat and/or power plants and boiler plants using renewable energy sources, excluding hydropower plants, wind farms (more than one generator), heat and power plants with an installed capacity of more than 4 MW and district heating boiler plants with an installed capacity of more than 4 MW.
- Investment support for procuring the infrastructure necessary for establishing grid connections for production facilities

Use of alternative energy sources in transport

- Raising of consumer awareness of the possibilities of using alternative transportation fuels
- Conversion of the fuel systems of vehicles to alternative transportation fuels (hydrogen, biofuels)

Ambient air protection and mitigation of climate change

- Investment support for renovating district heating networks
- Procurement and installation of pollution control equipment
- Introduction of cleaner combustion technologies in power production
- Investment support for establishing demonstration facilities for power production based on innovative solutions and for applying technologies offering local solutions

5.3.2.3 Beneficiaries

- Local authorities
- Companies
- Non-profit associations and foundations
- Ministry of Economic Affairs and Communications
- Ministry of the Environment

5.3.3 Promotion of energy conservation in housing

5.3.3.1 Objectives and indicators

Objective: Improved energy efficiency of the housing stock

Indicators

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicator</i>				
Share of block houses renovated with ERDF support in the total housing stock built before 1993	In accordance with the Estonian Housing Development Plan 2008–2013; <i>Source: Building Register</i>	0.3% (2006)	5% (2011)	8% (2015)

5.3.3.2 Operations to be supported

- Supporting reconstruction and renovation of block houses erected before 1993 to carry out the necessary reconstruction works to improve the energy efficiency, incl. accompanying works, according to the energy audit
- Analysis (expert assessment, audit) of technical condition and energy consumption of block houses and supporting the preparation and implementation of construction projects developed on the basis of energy audits (incl. accompanying works during reconstruction)
- Functioning of the Kredex energy saving competence centre as a provider of information and training to consumers concerning the possibilities and importance of energy conservation

5.3.3.3 Beneficiaries

- Local authorities
- Apartment associations, housing associations and apartment owners' communities

- Kredex Foundation

5.3.4 Contribution to horizontal themes

Regional development

The planned investments in the energy sector will have a neutral impact on regional development, with the exception of energy conservation in housing, which will improve the living conditions of primarily the urban population because the share of block houses in total housing stock is bigger in cities.

Environmental protection

All projects are directly aimed at improving environmental protection.

Development of information society

No impact.

Equal opportunities

Increasing of the energy efficiency of block houses will have a more positive effect on the economic situation of people with lower incomes as heating costs account for a greater share of their expenditures.

Development of civil society

The apartment associations, housing associations and apartment owners' communities are among potential beneficiaries of support provided for activities in the priority axis. This indirectly supports the development of civil society, as the receipt of Structural Assistance should contribute to the rise of the capacity of receiving organisations to plan, manage and evaluate projects and finances – thereby contributing to the increase of organisations' capacity to be active in their respective area and development of partnership.

5.3.5 Major projects

None.

5.3.6 Linkages with other operational programmes and strategies

5.3.6.1 *Linkages with other priority axes and operational programmes*

The priority axis "Development of energy sector" is complementary with the priority axes "Development of water and waste management infrastructure" and "Development of infrastructures and support systems for sustainable use of natural resources", as they all implement the common priority "Sustainable use of the environment".

The current priority axis has several connections with the priority axis "Integral and balanced development of regions", in particular in terms of the reconstruction of housing stock, use of renewable energy, reconstruction of heating networks and promotion of combined heat and power production. All such projects will have an impact on the quality of life in regions and the competitiveness of regions, enabling synergy with other development activities.

The priority axis is also connected with the Operational Programme for Development of the Economic Environment through, on the one hand, developing environmentally sound technologies which may partly find use also in modernising energy management. On the other hand, the priority axis "Development of energy sector" will contribute to business development by improving the living conditions of work force through healthier ambient air.

The operations planned to promote the use of biofuels a.o. sustainable motor fuels will contribute to improving the environmental performance of the transport sector.

5.3.6.2 *Connections with priorities of the National Strategic Reference Framework for structural instruments 2007–13*

The priority axis “Development of energy sector” will implement the priority “Sustainable use of the environment” under the National Strategic Reference Framework 2007–2013.

5.3.6.3 *Connections with Community Strategic Guidelines*

Subsection 4.1.3 of the Guidelines: “To address Europe’s intensive use of traditional energy sources” identifies the following guidelines of action: “supporting projects to improve energy efficiency and dissemination of low energy intensity development models; supporting the development of renewable and alternative technologies (wind, solar, biomass) which can give the EU the leading edge and thus strengthen its competitive position. Such investments also contribute to the Lisbon objective of ensuring that, by 2010, 21% of energy is generated from renewable sources; concentrating investment in traditional energy sources to develop the networks where there is evidence of market failure. These investments mostly concern the Convergence regions.” The latter include also Estonia. In addition to these guidelines of action, the following guideline of action is set out in subsection 4.1.2 “To strengthen the synergies between environmental protection and growth”: “promoting, in addition to the investments in sustainable energy and transport covered elsewhere, investments that contribute to the EU Kyoto commitments”. The current priority axis is in full harmony with the above guidelines of action specified in Community Strategic Guidelines.

5.3.6.4 *Connections with the Estonian Action Plan for Growth and Jobs 2005–07 and the Lisbon Strategy*

The priority axis “Development of energy sector” will contribute to Objective 6 of the Estonian Action Plan for Growth and Jobs 2005–07 “Strengthening of synergy between environmental protection and growth”. Measure 6.2 of the Action Plan, “Reduction of pollution load and ensuring of sustainable use of natural resources”, provides, among others, for supporting energy conservation (incl. planning of measures to increase the energy efficiency of buildings and improving the environmental performance of energy generation through improving the efficiency of use of non-renewable natural resources).

5.3.6.5 *Linkages with other national development plans and policies, incl. the Estonian Rural Development Plan 2007–13 and Estonian Fisheries Development Plan 2007-2013*

The priority axis “Development of energy sector” will implement the objective “Ecological balance” under the Estonian sustainable development strategy “Sustainable Estonia 21”, reducing ambient air pollution and saving non-renewable sources of energy.

The priority axis will contribute to achieving the following objectives of the Estonian National Environmental Strategy until 2030 (in preparation):

- to develop environmentally sound, sustainable and diverse energy production technologies based on sustainable energy sources
- to slow down and stabilise the growth of energy consumption

- ambient environment safe and supportive for human health

The current priority axis works in the same direction as the Environmental Management sub-programme of the National Environmental Programme implemented by the Environmental Investment Centre

The operations to be supported under the current priority axis reflect the objectives and courses of action established in the following national strategic documents guiding the fields of energy and housing: National Long-term Development Plan for Fuel and Energy Sector 2005–2015, Estonian Energy Technology Development (to be completed in 2007), Action Plan for Promoting the Use of Biomass and Bioenergy (completed in 2006), Estonian Housing Development Plan 2003–2008, Estonian Housing Development Plan 2007–2013 (completed in 2006) and the Target Programme for Energy Saving. All planned operations are also in harmony with EU level policies and strategies.

The Estonian Rural Development Plan 2007–2013 complements the current priority axis by supporting agricultural producers in growing energy forest and investing in the production of bioenergy. In order to avoid double financing of bio-energy related activities for agricultural producers, preconditions for granting support are defined in the ministerial regulation stipulating the framework and conditions for each measure.

In RDP measure, support is available only to those producers who aim to use at least 50% of the produced energy for the purposes of agricultural production in the applicant's enterprise. In current OP, the main focus in the case of such objects is on selling the produced energy. In addition, overlap is prevented by the fact that the maximum amount of support under the RDP measure is too low considering the cost of an average commercial cogeneration plant. Consequently, the RDP measure is not a viable option for the establishment of commercial cogeneration plants and agricultural producers who have been interested in developing larger plants for the sale of energy will be supported under current measure.

5.4 PRIORITY AXIS 4: INTEGRAL AND BALANCED DEVELOPMENT OF REGIONS

5.4.1 Justification of need

Integral and balanced development of regions is one of the priorities of the Estonian National Reference Framework for structural instruments. Implementation of this priority will be organised with ERDF contribution as a single priority axis under the Living Environment Development Operational Programme.

In order to achieve integral and balanced development of regions, it is necessary to develop all regions in Estonia: to shape county centres and bigger local centres together with their hinterlands into integrally functioning work force areas, to strengthen the role of centres as job generators and providers of public services and to improve the vitality of hinterland. In five larger urban regions it is necessary to focus on developing an environment stimulating higher added value, innovativity and creativity.

The operations under this priority axis are directly connected with the realisation of the objectives of the territorial dimension of EU cohesion policy under the Community Strategic Guidelines: contribution of cities to growth and jobs and provision of support for economic diversification of rural areas.

The priority axis is divided into three sub-axes according to the specific features, objectives and logic of planning of the operations: local public services in rural regions, development of urban regions and strengthening of the competitiveness of regions.

The availability and quality of local public services is of critical importance for ensuring sustainable development across the entire territory of Estonia. Due to the low population density in rural areas and the backlog left by previous years, the investment needs in these areas are very big, exceeding the possibilities of investment support from local authorities and national funds. In addition, the infrastructure network needs substantial modernisation due to demographic processes. It will be expedient to use ERDF support for larger infrastructure facilities of key importance for regional development, paying special attention, on the one hand, to problems related to the need for concentrating services in local centres and, on the other hand, to more efficient use of the existing infrastructure in peripheral areas. In addition, there is a need for investments in public transport for improving accessibility of services. The funds of the ERDF will supplement Estonian national investments in general education schools, childcare facilities, recreation and sports facilities and social sphere assets. Supporting of smaller-scale improvement works will be feasible through various national support programmes.

Urban issues are topical for the bigger cities of Estonia: Tallinn, Tartu, Narva, Pärnu and the Kohtla-Järve conurbanisation. The operations to be implemented with ERDF support will focus first of all on solving transport problems (incl. light traffic and public transport) and developing public infrastructure supporting the regeneration of urban areas and alleviation of social problems. A high priority will be attached also to alleviating and preventing the problems resulting from urban sprawl, in which case it is important to address the urban centre and its immediate hinterland as one whole and support also the preparation of spatial plans, etc.

Special attention under this priority axis will be paid to supporting the development of links between urban centres and their rural hinterlands. This will be done first of all by drawing up spatial plans, rehabilitation of former industrial and military areas, ensuring access to

education services in rural areas, diversifying the infrastructure necessary for providing local public services, developing visitor sites, building light traffic roads and creating recreation opportunities not only for tourists but also for local people.

Strengthening of the competitiveness of regions consists primarily in increasing the competitiveness and attractiveness of the regions through improving the local business and visiting environment, utilising for this purpose the strengths of each region and the specific locational, natural and cultural development resources and know-how.

Important from the point of view of increasing the competitiveness of regions are operations that strengthen the business environment of the region concerned, in particular the development of regional competence networks, development of industrial parks and preparatory work for reviving certain economic activities.

Equally important is the development of local visitor environment, making more efficient use of the region-specific resources. It is important both to develop new visitor sites and to provide the existing attractions values with a modern supporting infrastructure.

In addition to projects implemented on local initiative, this priority axis will be supporting also national initiatives for developing cultural and tourism facilities of national importance. Also the development of regional industrial parks will directly pursue the national priorities.

It will be feasible to direct the funds of the ERDF first of all into supporting sufficiently large and integrated local-initiative-based development projects that encourage the creation of jobs, complemented by active domestic consultation support. Development of smaller-scale single projects will be supported through national regional development programmes, as will be the promotion of local initiative and preparatory works for large investment projects. National funds will continue to be used for implementing support projects aimed at carrying out smaller-scale investment projects, preparing investment projects and strengthening local initiative.

Most of the operations will be implemented by local authorities and non-profit organisations. The operations have to be based on or in harmony with local development plans, have a high priority at the county level (in particular in the case of local public services) and be in line with national sectoral development plans and strategies.

Support in the framework of this priority axis will generally be granted to operations of public purpose.

5.4.2 Development of local public services

5.4.2.1 Objectives and indicators

Objective: Availability and use efficiency of public services in counties has increased.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicators</i>				
Number of local public services infrastructure objects in a qualitatively improved condition	Will be measured by counting all reconstructed objects	Not applicable	65 (2010)	225 (2015)

	<i>Source: project implementation reports</i>			
Number of local public infrastructure objects with diversified use	Will be measured by counting all objects having one or more additional functions after reconstruction <i>Source: project implementation reports</i>	Not applicable	15 (2010)	50 (2015)
<i>Result indicator</i>				
Number of people who have benefited from the investments	<i>Source: project implementation reports</i>	Not applicable	35 000 (2010)	120 000 (2015)

5.4.2.2 Operations to be supported

Support will be provided to activities directed first of all to improving the accessibility of high-quality and competitive public services in regional and local centres and to improving the efficiency of use of the infrastructure related to local public services in rural areas.

- General education school investments (incl. sports and boarding facilities)
- Investments in child care institutions
- Investments in recreation and sports facilities (community centres, hobby centres, libraries, gyms, sports grounds, neighbourhood sports facilities, etc.)
- Social sector investments (rehabilitation and activation centres, day centres, welfare homes, infrastructure for the provision of primary care services, children's homes, etc.)
- Investments in improving access to public transport (passenger service centres, public transport stops)
- Investments in expanding the functions of the existing public infrastructure and readjusting the existing public infrastructure for the purpose of diversifying public services

5.4.2.3 Beneficiaries

- Local authorities
- Non-profit associations and foundations

5.4.3 Development of urban regions

5.4.3.1 Objectives and indicators

Objective: More attractive public urban space enabling a better quality of life

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicators</i>				
Number of projects directed to the development of sustainable urban transport	<i>Source: project implementation reports</i>	Not applicable	3 (2010)	10 (2015)
Length of light traffic roads constructed	<i>Source: project implementation reports</i>	Not applicable	15 km (2010)	50 km (2015)
Area of public green and recreation areas developed	<i>Source: project implementation reports</i>	Not applicable	30 ha (2010)	100 ha (2015)
Area of public green and recreation areas designated by spatial plans drawn up and enacted	<i>Source: project implementation reports</i>	Not applicable	300 ha (2010)	1000 ha (2015)
<i>Result indicator</i>				
Number of people who have benefited from investment projects	Will be measured in the case of sports and social sphere investments. The methodology will be developed prior to preparing the investment plan. <i>Source: project implementation reports</i>	Not applicable	1500 (2010)	5000 (2015)

5.4.3.2 Operations to be supported

Support will be provided to operations aimed at developing urban space, solving city-specific problems and improving the functional integration between centres and hinterlands.

- Development of sustainable urban transport (incl. light traffic roads, traffic management, public transport management, etc.)
- Development of public infrastructure related to improving child care
- Development of public infrastructure related to improving social security (rehabilitation and activation centres, shelters, day centres, welfare homes, social homes, orphanages, exercise facilities, etc.)
- Development of public urban space and recreation areas and improvement of green areas in cities and suburban areas (central areas of cities, squares, parks, coastal and bank areas, lighting, etc.)

- Drawing up of spatial plans for public areas

5.4.3.3 Beneficiaries

- Local authorities
- Non-profit organisations and foundations of 5 major urban regions.

5.4.4 Strengthening of the competitiveness of regions

5.4.4.1 Objectives and indicators

Objective: Regions are more attractive to investors, qualified workforce and visitors.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicators</i>				
Number of business infrastructure facilities created or qualitatively improved	<i>Source: project implementation reports</i>	Not applicable	15 (2010)	50 (2015)
Number of projects enhancing regional traditional know-how	<i>Source: project implementation reports</i>	Not applicable	10 (2010)	30 (2015)
Number of visitor sites created or qualitatively improved	<i>Source: project implementation reports</i>	Not applicable	30 (2010)	100 (2015)
<i>Result indicator</i>				
Number of companies who have benefited from the created business or visitor infrastructure	The methodology will be developed prior to the start of the application procedure <i>Source: survey by Enterprise Estonia</i>	Not applicable	90 (2010)	300 (2015)

5.4.4.2 Operations to be supported

Support will be provided for operations aimed at accelerating economic development through developing region-specific competitive advantages.

Development of local business environment

- Development of regional industrial parks and logistics centres
- Creation and strengthening of regional innovation systems and operations directed to the development of regional business networks and competence centres (in particular on the basis of county centres)
- Development of public technical infrastructure essential for business development
- Preparations for community reuse of former military, industrial and agricultural facilities; demolition of low-value facilities
- Adaptation of disused public facilities to new functions
- Creation of conditions for stimulating local employment (establishment of local workshops, promotion of the use of traditional know-how, etc.)
- Investments in improving the quality of Internet access (data transmission links in areas of market failure, public Internet access sites and points)

Development of local visiting environment

- Development of sites of cultural and nature value into visitor sites (incl. visiting harbours, museums, thematic parks, visitor centres, hiking and study trails, beaches, etc.)
- Development of the supporting infrastructure of the existing visitor sites (incl. access and light traffic roads (dust abatement), parking lots, sanitation and waste management facilities, signs, recreational areas, Internet access points, etc.)

Development of cultural and tourism sites of national importance

- Investments in the development large-scale cultural and tourism facilities raising the competitiveness and popularity of Estonia as a tourist destination

5.4.4.3 Beneficiaries

- Local authorities
- Non-profit associations and foundations
- Museums
- Educational and research institutions
- Ministries

5.4.5 Contribution to horizontal themes

Regional development

The projects of the priority axis “Integral and balanced development of regions” are directly aimed at balancing regional development, solving problems of regional and local nature and making more efficient use of local development advantages.

Environmental protection

Operations under several sub-axes of this priority axis, but first of all the projects directed to developing the local business and visitor environment, will contribute to improving the state of the environment or more sustainable use of natural resources. The priority axis also supports the protection of biological diversity in urban space and the near surroundings of

cities and increases the share of healthier living environment in urban space through operations aimed at developing green and recreation areas and drawing up spatial plans for areas intended for public use. Also the development of sites of cultural and nature value into visitor sites will support their more sustainable use through improving their sanitary and waste management conditions.

Development of information society

The sub-axis “Development of local business environment” will directly contribute to developing the information society through operations supporting, among others, investments in improving data transmission links in areas of market failure where Internet access and other data transmission links are missing or interrupted due to specific natural conditions or other circumstances. The priority axis will thereby help to improve access to digital information in regions which have so far benefited less from the development of information society due to inadequate connections.

Equal opportunities

Development of the infrastructure of local public services, including the operations to develop the public infrastructure related to improving social security (investments in childcare institutions, welfare homes, shelters for women and children a.o. public infrastructures necessary for providing social, health and employment services) is directly aimed at ensuring equal opportunities. Most of the projects aimed at strengthening the competitiveness of regions and developing local public services will contribute to enhancing equal opportunities, as they emanate from the needs of men and women at the local level for improving the quality and availability of public services and the opportunities of people to participate in social, economic and cultural life. The operations under this priority axis will therefore contribute also to creating equal opportunities for people in terms of the availability of public services, but also the opportunities for self-realisation regardless of the possible constraints arising from the geographic location of their place of residence (reduction of the so-called spatial inequality).

Development of civil society

The non-governmental organisations (non-profit associations and foundations) are among potential beneficiaries of support provided for activities in the priority axis. This indirectly supports the development of civil society, as the receipt of Structural Assistance should contribute to the rise of the capacity of receiving organisations to plan, manage and evaluate projects and finances – thereby contributing to the increase of organisations’ capacity to be active in their respective area and development of partnership.

5.4.6 Major projects

None.

5.4.7 Linkages with other operational programmes and strategies

5.4.7.1 *Linkages with other priority axes and operational programmes*

Priority axes of environmental investments under the Living Environment Development Operational Programme

The priority axes are largely interconnected through the fact that they will be implemented hand in hand and largely by the same actors (local authorities). The operations directed to maintaining and adding value to natural assets proceed from the principles of sustainable development and support the priority axes of environmental investments. Provision of support

to operations aimed at solving the problems resulting from urban sprawl and developing the local visitor environment will contribute to regulating environmental load in visitor sites and help to alleviate the adverse environmental impact resulting from the growth of construction activity and traffic intensity in suburban areas due to urban sprawl. Another contact area is the development of infrastructure in protected areas, which is partly connected with tourism. Therefore the implementing rules of this Operational Programme will set out a clear division of work between the protected area manager and local authorities in this area, which will avoid overlap between support measures.

Environmental investments, in turn, will support the objectives of this priority axis, increasing the attractiveness of regions as places to live and visit.

Priority axes “Development of education infrastructure” and “Development of health and welfare infrastructure” under the Living Environment Development Operational Programme

The operations under the current priority axis are clearly connected with the above priority axes and their objectives. Through supporting infrastructure investments in general education schools, welfare homes and the provision of primary health services in regions, the above priority axes support the development of education, health and welfare infrastructure, thus contributing to ensuring the sustainability of the territorial coverage and regional accessibility of both acute care or social welfare services and the school network.

Modernisation of the general education school infrastructure will contribute to the objective “To ensure high-level education meeting the needs of the society and labour market” under this Operational Programme. Investments in open youth centres and hobby schools will support the diversification of youth work and help to improve its accessibility and quality in different regions, thereby helping to provide young people with more diverse recreation opportunities and possibilities for more active participation in social life also outside major urban regions.

The priority axis “Development of education infrastructure” will support also the development of infrastructure of hobby schools and schools for students with special educational needs, thereby complementing the investments in general education school infrastructure under the current priority axis.

Extension of sports and recreation opportunities under the priority axis “Integral and balanced development of regions”, in turn, will support the general objectives of the “Health and welfare infrastructure development” priority axis, creating additional possibilities for diverse illness prevention activities in regions, and indirectly also for improving public health and increasing the capacity of people to participate in social life, including the acquiring of education.

Priority axes of the Operational Programme for Development of the Economic Environment

Investments in transport infrastructure of strategic and regional importance, incl. in urban areas, under the above Operational Programme will clearly support the objectives and operations of the priority axis “Integral and balanced development of regions”, creating preconditions for improving access, reducing distances in time and space and improving the linkage between urban and rural areas and peripheral areas. This, in turn, will create additional preconditions for balanced regional development, incl. improving the quality of life, developing businesses and increasing employment in peripheral regions through increasing access to and linkage between regions. The priority axis “Integral and balanced development of regions” will support the development of sustainable urban transport,

construction of light traffic roads in urban areas, improving accessibility of public transport in rural areas and construction of access roads to visitor sites, thereby complementing, in turn, transport infrastructure investments under the above Operational Programme, which does not support the mentioned investments.

Also the operations aimed at developing urban space and improving functional integration between centres and their hinterland under the priority axis “Integral and balanced development of regions” will support the development of communication links, in particular in terms of the regional road network, public transport and light traffic.

The development of local public services and local business environment will be supported, in the first place, by the information society development operations under the Operational Programme for Development of the Economic Environment, such as developing public e-services and increasing the accessibility of the Internet. The priority axis “Integral and balanced development of regions” will contribute to the development of the information society at the local level, being directed to improving the quality of Internet links in areas of market failure. Thereby the current priority axis will, in turn, support and add value to the operations aimed at achieving the objectives of the priority axis “Development of information society infrastructure” under the above Operational Programme – to create integral solutions at the national level to promote the information society.

Supporting of the development of regions will create additional preconditions for achieving the targets of business development and growth of productivity, as it will provide a framework for improving the business environment and creating preconditions for increasing local employment, promoting traditional know-how and harnessing it into the service of economic development.

The priority axis “Integral and balanced development of regions” will support, among others, also the operations directed to strengthening and developing regional innovation systems, business networks and competence centres. This set of operations, in turn, will contribute to promoting the innovativity and growth capacity of businesses in the country as a whole, which is an important priority axis under the above Operational Programme. A growth in the innovativity and productivity of regional businesses will facilitate business acceleration and increase employment and work productivity in the respective regions and thereby also provide higher incomes, which will ultimately increase the quality of life in and attractiveness of the regions.

In addition, the investments in tourism and recreation under the priority axis “Integral and balanced development of regions” and under the Operational Programme for Development of the Economic Environment are mutually complementary and contribute to achieving each other’s objectives. As the tourism sector plays a rather significant role in the economic coping of regions, the operations directed to the development of tourism under the above Operational Programme will facilitate the development of tourism and recreation and the entire services sector in regions and add to the competitiveness of regions, thus also creating preconditions for additional employment, growth of the quality of life and improvement of the quality of the living environment in regions.

Investments in developing cultural and tourism sites of national importance and developing the local visitor environment and adding value to the natural and cultural environment by local authorities themselves under the current priority axis will, in turn, enhance the growth of tourism competitiveness in the country as a whole, supporting the operations related to reinforcing the competitive and sustainable development of the national tourism sector with the aim of making fuller use of the tourism potential of Estonia.

Priority axes of the Human Resource Development Operational Programme

Operations under the priority axis “Integral and balanced development of regions” will contribute, first of all, to achieving the objectives of the Human Resource Development Programme regarding increasing employment, raising the quality of work life and enhancing entrepreneurial activity. Supporting of the development of regions will create preconditions for generating new jobs, stimulating entrepreneurial activity and improving the quality of work life in regions. This will be achieved primarily through supporting investments in recreation and sports facilities, developing industrial parks and public technical infrastructures important for business development and creating preconditions for stimulating local employment.

The current priority axis will directly support the objectives of the priority axis “Knowledge and skills for innovative business” under the Human Resources Development Operational Programme through supporting the operations directed to developing and strengthening regional innovation systems, business networks and competence centres. The relevant operations will enable more effective application of the existing and development of new knowledge and skills for developing innovative business activities offering a higher added value in regions

As the operations under this priority axis are mostly targeted to local authorities and non-profit associations, the operations of the Human Resource Development Operational Programme directed to increasing the capacity of local authorities and the non-profit sector are important for this priority axis. Supporting of projects directed to strengthening the strategic management capacity of local authorities and non-profit sector organisations, developing innovative administrative processes and public services and strengthening the legislative capacity of local authorities and their partners under the priority axis “Enhanced administrative capacity” of the Human Resource Development Operational Programme will help to increase the professional skills and administrative capacity of the public and non-profit sector and raise the quality of regional development activity through strengthening regional cooperation and coordination between different partners.

5.4.7.2 *Connections with the priorities of the National Strategic Reference Framework for structural instruments 2007–13*

The priority axis “Integral and balanced development of regions” will implement the same-named priority under the National Strategic Reference Framework for structural instruments 2007–2013. In addition, the implementation of the priority axis will have an impact on all other priorities of the National Strategic Reference Framework.

Better connections

The operations aimed at developing urban space and improving the functional integration between centres and their hinterlands will support the development of better connections, in particular in terms of the municipal road network, public transport and light traffic. Also the development of local e-services and improving access to Internet in areas of market failure will contribute to this priority.

Better connections, in turn, will create preconditions for balanced regional development (incl. on the islands), incl. for the development of business activities and growth of employment in peripheral regions, as they will improve the accessibility of peripheral regions and connections with other regions.

Educated and active people

The operations to ensure the spatial accessibility of local primary public services and diversify the purpose of use of local public infrastructure facilities will support the development of education, health and social sphere. Also the operations to improve local sporting and recreation opportunities will help to improve public health by creating additional possibilities for diverse illness prevention activities and improving public health in regions. The same operations will also contribute to creating better development opportunities for children and improving the efficiency of youth work.

A population able to work and provided with income and the availability of jobs and individual development opportunities, in turn, is an important development resource for any region.

Sustainable use of the environment

The priority axis is connected with the priority “Sustainable use of the environment” since they will be implemented hand in hand and largely by the same actors. The operations directed to maintaining and adding value to natural assets proceed from the principles of sustainable development. Provision of support to operations aimed at solving the problems resulting from urban sprawl will, in turn, contribute to improving the state of the environment and ensuring biological and landscape diversity in suburban regions and help to alleviate the adverse environmental burdens resulting from the intensive construction activity and growth of traffic intensity in suburban areas due to urban sprawl.

Environmental investments in reducing environmental burdens and diversifying the natural environment, in turn, will increase the attractiveness of regions as places to live and visit. In creating preconditions for developing tourism and recreation activities, mutual complementarity and prevention of overlap between the operations supporting environmental and tourism investments will be ensured at the operational programme level.

Growth of research and development capacity and business innovation and productivity

The operations under the priority axis “Integral and balanced development of regions” will create additional preconditions for achieving the targets of business development and growth of productivity, providing a framework for supporting public activities for improving the business environment and creating conditions for increasing local employment, promoting traditional know-how and harnessing it into the service of economic development. They will also contribute to adding value to and harnessing regional cultural values and increasing local activity, thereby contributing to the growth of tourism competitiveness in the country as a whole.

The growth of business innovativity and productivity in regional enterprises will make it possible to accelerate business development and increase employment in the regions concerned, which will increase the attractiveness of regions. As the tourism sector often plays an important role in the economic life of regions, the operations directed to developing this sector will also contribute directly to regional development.

5.4.7.3 *Connections with Community Strategic Guidelines*

The Community Strategic Guidelines pay special attention to the territorial dimension of development and also to the contribution of cities to economic growth and employment and economic diversification of rural areas.

The Guidelines recommend supporting the development of business activity, local employment and sustainable communities both in rural and urban areas and provide the

population with services taking into account the changing demographic structure. It is also recommended in the Guidelines that measures should be taken for improving the physical living environment, maintaining the historical-cultural heritage and developing it for integrated purposes, and that steps should be taken to improve the economic conditions in rural areas in order to halt the population outflow and prevent the economic growth potential of the areas from being hindered by imbalanced development.

In direct accordance with the above Guidelines are also the operations planned under this priority axis for improving the business environment and creating conditions for enhancing local employment, maintaining the cultural and nature values and harnessing them to serve economic growth. This is also in line with the Community guideline concerning the strengthening of synergy between environmental protection and growth (Guideline 1.2). The current priority axis also covers the operations aimed at developing urban space and increasing the international competitiveness of urban regions.

The planned operations aimed at improving the functional integration between centres and their hinterland and controlling urban sprawl and enhancing community activity and entrepreneurial activity pursue the Community recommendation that operations under the regional competitiveness and employment objectives should focus on enhancing physical accessibility, improving access to various social and technical infrastructures and promoting sustainable communities.

Through contributing to the improvement of spatial access to high-quality primary public services, the operations under this priority axis will enable investments in education and health infrastructure and ensure access to communications and information technology infrastructure, in particular in more remote and rural areas (Guidelines 2.3, 3.3 and 3.5).

5.4.7.4 *Connections with the Estonian Action Plan for Growth and Jobs 2005–07 and the Lisbon Strategy*

The priority axis “Integral and balanced development of regions” will support the achievement of Objective 5 of the Estonian Action Plan for Growth and Jobs “Development of a business environment favourable for enterprise and entrepreneurship”. The set of operations programmed for improving the business environment and creating conditions for enhancing local employment is aimed primarily at advancing an infrastructure favourable for the competitiveness of local businesses and workforce and developing a network of support services. Different from the operations directly aimed at business development, those under this priority axis will contribute first of all to supporting the development of publicly owned infrastructures and support systems, which is one of the prerequisites for developing the business environment.

The priority axis is also consistent with the objective “Strengthening the synergy between environmental protection and growth” (Objective 6), which will be supported by developing sites of cultural and nature value into visitor sites with the aim of developing business activity involving the presentation of local nature values and preventing damage to them.

The priority axis will, mostly through the operations directed to developing regional industrial parks and logistics centres, regional innovation systems and regional competence centres, create additional preconditions for achieving the main objective of the Lisbon Strategy – movement towards a competitive and knowledge-based economy.

5.4.7.5 *Connections with the Estonian Rural Development Plan 2007–2013*

According to the Rural Development Plan, in order for services to be available and sustainable in the longer term, it is necessary in the conditions of low population density in rural areas to find new solutions that would continue to work also over a longer term, such as the development of multifunctional service centres, identification of mobile solutions for supplying goods and services, application of modern technologies, while taking into account also the needs of people with special needs.

In the framework of the Rural Development Plan, support will be provided first of all to private and non-profit sector investments that contribute to maintaining, restoring or improving the living environment of villages, incl. historically developed meeting places in villages (village greens, sacred groves, swing grounds, public sports facilities). These operations are mutually complementary with public sector operations under this priority axis directed to improving public services in rural areas.

The operations to improve the business situation under the Rural Development Plan will focus primarily on developing the activity of micro-enterprises. Preferred will be local resource based non-agricultural production, rural tourism, handicraft and services business, which are all directly related to improving the quality of life in rural areas. The current priority axis will support these operations through supporting public sector activities in developing the local business and visitor environment.

Operations under the Rural Development Plan will support the sustainable use and presentation of local specificity, incl. the natural and cultural heritage; development of community activities; enhancement of employment; promotion of local identity; utilisation of the potential for domestic and foreign tourism; appreciation of uniqueness and traditions; and private and non-profit sector activities to implement cooperation-oriented strategies based on appreciation of the local specificity and traditions and using innovative approaches. These operations are mutually complementary with public sector activities aimed at developing the local visitor environment under this priority axis and with regional-scale projects of the non-profit sector.

Preference in the frames of the Rural Development Plan will be given to investments through which abandoned agricultural facilities and buildings carrying an agricultural production heritage, incl. manors, that are in private ownership are put into reuse in production or services, thereby contributing to creating employment opportunities. Rehabilitation of publicly owned or ownerless disused facilities is also an operation under this priority axis.

Activities implemented under the current priority axis complement closely LEADER-based activities in the frame of the Rural Development Plan. LEADER-based activities, basing on local initiatives, are mostly targeted to strengthening local development and improving local living environment similarly to the focus of the priority axis “Integral and Balanced Development of Regions”. To prevent any potential overlaps on eligible activities or applicants supported through the Rural Development Plan and current priority axis under the OP for the Development for Living Environment, precise terms for eligibility as well as detailed coordination mechanisms will be determined in implementation documents incl., i.a information exchange between the implementing bodies.

5.4.7.6 *Linkages with the Estonian Operational Programme of the European Fisheries Fund 2007-2013*

The priority axis “Integral and balanced development of regions” links primarily with the activities in frame of the fourth priority axis of the Estonian Operational Programme of the European Fisheries Fund 2007-2013 (KALAK) – balanced development of fishery areas. The KALAK complements the activities under the current priority axis, which are targeted to develop local tourism and presenting areas with high cultural and natural value, by supporting activities targeted to preserve natural and architectural heritage in coastal villages and development of related tourism activities.

However, support under KALAK and through European Fisheries Fund will only be given to activities that form a part of an integrated strategy of a given local group for developing their region. Support under this priority axis will be for investments outside these integrated strategies and also mostly for other beneficiaries (local municipalities). To prevent any potential overlaps on eligible activities or applicants supported through the KALAK and current priority axis under the OP for the Development for Living Environment, more precise terms for eligibility as well as more detailed coordination mechanisms will be determined in implementation documents, incl. i.a. using information exchange between the implementing bodies.

In addition, there is synergy between priority axis „Integral and Balanced Development of Regions“ and the priority 3 of the KALAK in terms of supporting development of ports. Namely, EFF funds will be used to reconstruct of existent ports for fishery, while under the current priority axis ERDF support can be used developing the small visitor ports which play important role in local tourism development.

5.4.7.7 *Linkages with other national strategies*

The orientation of and operations planned under this priority axis are in harmony and compliance with the general concept of developing the country’s settlement system under the National Spatial Plan “Estonia 2010” and, more specifically, with the objective “Safeguarding basic human needs all across Estonia”.

The priority axis is directly consistent also with the Estonian Regional Development Strategy 2005–2015 and oriented to implementing its objectives. The Regional Development Strategy has represented one of the bases for planning the courses of action under this priority axis. All blocks of operations to be supported under this priority axis are in line with the general objective of the Strategy: “To ensure sustainable development of all regions, resting upon the inherent development resources and specific features of regions and upon qualitative development of the competitiveness of the capital region and other urban regions”. The more specific operations under the priority axis have contact points in particular with the courses of action planned to implement the following sub-objectives of the strategy: “Safeguarding basic human needs all across Estonia” and “Safeguarding long-term competitiveness of regions”.

In order to achieve these national Strategy objectives, the activities of the current axis of “Integral and balanced development of regions” are complemented by several measures financed from national funds.

- Activities under p 5.4.4 “Strengthening of the competitiveness of regions” are complemented by a national programme which supports similar investments, but only at a smaller financial scale aimed at strengthening the competitiveness of regions.
- There also is a national programme for supporting local development planning, i.e.

providing support for preparing local strategies and development plans which address to strengthening the competitiveness of regions – to provide a base for planning and choosing the necessary developmental projects to be financed either through Structural Funds or national funds.

- There are two more specific national programmes relevant to this axis:
 - the programme of regional colleges for improving the capabilities to prepare sustainable projects for developing regional competence centres;
 - the programme of local initiatives for strengthening the capability of local NGO-s to carry out development projects.

In addition, the general objectives of Estonian Regional Development Strategy as well as the achievement of objectives of the current priority axis are supported by the general budgetary policy of Estonia. One of the main aims of financing the local municipalities is to make sure that all regions across Estonia would have sufficient means to finance their developmental needs. Thus, budgetary policy means are being used to ensure that the financial (budgetary) capacities of regions would be balanced, which is one of the prerequisites for achieving balanced territorial development. The main instrument in this regard is the Equalisation Fund, which contributes to balancing the revenues and expenditure needs of municipalities with small “own” revenue base.

Throughout the programming period, the financial capacity of municipalities to provide co-financing to Structural Funds projects and especially for projects under this current axis, will be monitored by the Managing Authority. Additional measures to improve such capacity can be implemented upon need in order to assist the municipalities in special circumstances in the uptake of Structural Funds and there-by increase their development potential.

The national integration policy plays a specific role for achieving the balanced regional development objective, since non-ethnic Estonians form a significant share of population in specific regions, especially in Northern Estonia and Ida-Virumaa, and often these regions are among the less-developed ones. Specific integration policy measures, incl. language training and labour market measures (funded from European Social Fund) and socio-economic measures (cultural awareness programmes, drug and HIV/AIDS prevention, etc. funded from national resources) will be used under the integration policy for advancing the work opportunities of non-ethnic Estonians and their inclusion in the society. This directly contributes to advancing the development of the respective regions through improving the local labour supply and business potential, resolving social problems, etc. Same time, the effect that the current axis is intended to have on balancing territorial development would help integration of non-ethnic Estonians and the implementation of such policy as well – as the more developed the region, the more work and personal development opportunities there are. Urban development measures, in particular, can be used for developing social environment in the cities for better inclusion of non-ethnic Estonians.

Transport policy constitutes one of the key factors of regional development, providing communication links between regions. The transport policy of Estonia is based on the Transport Development Plan 2006–2013 and the relevant sub-programmes, which envisage, among others, also measures for solving regional policy problems. The repair and development of transport infrastructure will lead to faster transport links and thereby enable a reduction of distances in time and space between main centres and the regions in their area of influence. Improvement of connections (roads, bridges, ports, airports, but also bus, rail, air and water traffic tailored to regional interests) will help to better reduce the developmental disparities between regions, providing jobs for the people of backward regions both in centres

and in the regions themselves through enhanced business opportunities. In addition to improving connections, it is increasingly important to pay attention also to influencing the movement needs of people through an integrated planning process and through promoting distance working and other measures.

The Estonian National Tourism Development Plan 2007–2013 envisages a variety of measures strengthening the regional tourism sector with a view to developing regional tourism. The measures are aimed at enhancing the assortment and accessibility of products and attractions provided to tourists visiting Estonia, and at developing products whose demand is not limited to only the summer peak season, with particular attention to cultural heritage and attractions that are of no interest for the private sector due to their long payback period, or those satisfying the needs of niche tourists and thus diversifying the assortment of tourism products. As part of the planned activities, the Development Plan provides for improving the condition and infrastructure of cultural and natural assets. The support measures will result in a broad assortment of attractive products representing a source for marketing Estonia on high-priority target markets. Particular attention will be paid to local sites of cultural value acting as tourist magnets, which have a high potential in regional tourism development. In addition, there are several support programmes for tourism enterprises engaged in developing both regional tourism and indirectly also the tourism sector of the country as a whole.

The Estonian Enterprise Policy 2007–2013 sets out two key objectives and courses of action: development of business activity of the Estonian population and development of the business environment, both of which encompass also the development of competitiveness of local entrepreneurship. Local and regional development is identified as one of the key values under the Enterprise Policy, which is a key document from the point of view of balanced regional development. The enterprise policy so far has attached great importance, among others, to the development of human resource, which is directly aimed at reducing regional and structural unemployment and raising the quality of labour. Regional development centres located in all counties provide counselling to increase business awareness. Also the upgrading of business infrastructure both through projects implemented by enterprises and through investments in industrial parks created by local authorities has been supported in the amount of 178 million kroons (until 2006).

The priority axis “Integral and balanced development of regions” will also contribute to implementing the objectives of the Estonian R&D and innovation strategy “Knowledge-based Estonia 2007–2013” (draft). The operations of this priority axis directed to developing and strengthening regional innovation systems, business networks and competence centres will contribute first of all to achieving two key objectives of the strategy: growth of the competitiveness and volume of research and development activity and delivery of new value to innovative business in the global economy. Implementation of the above operations under the current priority axis will also contribute to more equal regional distribution of the results and outputs consistent with the objectives of the R&D and innovation strategy

The priority axis is connected with measures under Objective 3 of the Housing Sector Development Plan 2007–2013 “Safeguarding of the diversity and balanced sustainable development of housing regions”, whose aim is to add value to areas of nature and cultural value in the territory of local authority entities, incl. through developing and organising urban space, developing a safe living environment and raising the quality of the living environment.

The principles of development of information society apply since the year 1998. An

information society is being created for the entire population of Estonia, among others through supporting regional development and local initiative. The Information Society Development Plan 2007–2010 sees one of the challenges in improving the accessibility and quality of the Internet in different geographic regions of Estonia, in particular in areas where the provision of Internet access is not profitable for private companies. Internet penetration of rural areas is an important precondition for rural development, improving the accessibility of operational information and services and thereby increasing the quality of life of the rural population (e-school, a.o.).

The priority axis is connected with the Youth Policy and Youth Work Strategy 2006–2013, which emphasizes the importance of local authorities as organisers of youth work and introduces the principle of offering youth work opportunities to the young as close as possible to their residence. The Strategy recognizes youth centres and hobby schools as the key institutions in organising youth work.

The priority axis is complementary with the development plan of the area of government of the Ministry of Education and Research entitled “*Tark ja tegus rahvas*” (“Wise and active people”) 2007–2010, supporting its Measure 2.2 “Development of a modern learning environment in general education schools supporting versatile development of students and ensuring a high quality of education across all regions”, and Measure 4.1 of the same document, which provides for strengthening youth work structures and youth involvement. Activities under Measure 2.2 include, among others, investments in boarding school facilities, while those under Measure 4.1 will support, among others, the infrastructure of youth centres.

The Fundamentals of the Estonian Cultural Policy, approved by the Riigikogu in 1998, highlight the need to ensure that all members of the society irrespective of their place of residence are provided with opportunities to participate in cultural life. In addition, the state pays special attention to the maintenance of unique region-specific cultural phenomena, in particular those in danger of disappearance.

A broader framework of cultural policy, describing the role of culture in the society and presenting different development scenarios, is provided by the Estonian national sustainable development strategy “Sustainable Estonia 21”, according to which the desired goal “Viability of the Estonian cultural space” can be achieved through appreciation of cultural heritage.

In 2006 the Government of the Republic approved the Estonian Strategic Development Plan Sport for All 2006–2010, which is aimed at promoting the expansion of exercising and wider spread of generally practicable forms of exercise among the population. It is important to ensure the availability of sporting opportunities in all locations of Estonia and promote exercising through creating the relevant opportunities.

5.5 PRIORITY AXIS 5: DEVELOPMENT OF EDUCATION INFRASTRUCTURE

5.5.1 Justification of need

Estonia envisages its future as a knowledge-based society. This essentially means the need for modernisation of the entire economy, in which the ability to handle technological innovations plays the leading role, requiring, among others, also a very high quality of vocational education.

Transition to knowledge based society and economy is essential from the labour force perspective. Already now the main problem for further development of Estonian economy is the lack of qualified labour. Considering Estonian limited population and labour force situation, quantitative restrictions for raising labour participation will be met soon. Estonia has a long way to go to in meeting the EU average work effectiveness and productivity (EU average approx 60%). Therefore the only opportunity for further successful development is to solve the problem with qualified labour force. Flexible education opportunities have to play a key role in this process by considering the training needs of different and constantly changing target groups and offering up to date learning possibilities.

Proceeding from the above, the main challenge for the Estonian vocational education in the near years will be its substantive modernisation to bring it to a qualitatively new level. This requires the development of the Estonian vocational education in two main priority directions:

1. Vocational education has to be modern and of high quality, with modernity being one of the primary prerequisites for high-quality vocational education. Modern vocational education has to enable the training of skilled workers, technicians and senior specialists who are able to realise the great challenge confronted by Estonia in transiting to knowledge-based and innovative arrangement of the society and economy.
2. Vocational education has to be accessible to all who wish to learn and to different target groups. Special attention needs to be paid to vocational retraining of the already employed skilled workers and specialists in order for them to be able to apply the new technologies that are being extensively introduced both in production and services and in other societal sectors.

Building on the above priorities, the funds to be invested in the Estonian vocational education should be channelled, in particular, in the following directions:

- technological upgrading of the learning environment of Estonian vocational education institutions. This means, in particular:
 - qualitative state-of-the-art upgrading of the study equipment and other installations used for hands-on training;
 - renovation of the existing or construction of new study and training rooms;
 - upgrading of the technological equipment and communications of school buildings.

Where possible, the technological upgrading is to be carried out in an integral manner, entire school buildings at a time, to achieve the synergic effect arising from integral solutions;

- ensuring the accessibility of vocational education. One of the key

components of this is modernisation of the living conditions of students and securing boarding facilities for all who need them.

Importantly, the investments in the infrastructure of vocational education institutions will ensure state-of-the-art and high-quality vocational education as well as its accessibility to both young first-time students and adult in-service trainees and retrainees, whose number is multiplying every year in connection with the constant increase in the amounts of training required for the mentioned target groups in transition to knowledge-based society.

The planned investments in modernisation of vocational education and training establishments are strongly supported also by the operations planned for the use of the European Social Fund (ESF) for the same programming period. One of the central courses of action planned under the ESF is the programme for substantive upgrading of vocational education, which includes curriculum development, extensive in-service training of vocational teachers, preparation of methodological materials and other teaching aids, and application of quality assurance systems to vocational training. Another important course of action envisages substantial further development of hands-on training and in-company training and extensive presentation and promotion of vocational education among potential students, including the establishment and launch of a system of national vocational competitions and preparation for participating in international vocational competitions. All these planned activities are conditioned on the presence of a modernised learning environment and cannot be realised without it. Thus, the modernisation of vocational education infrastructure and substantive upgrading of vocational education are closely interconnected. This is the only possibility to achieve co-effects, to reduce the labour force shortage and prepare highly qualified labour for knowledge based economy.

Modernisation of the infrastructure of vocational education institutions will give a strong impulse also to the development of different regions of Estonia since vocational education institutions are located all across Estonia and the provision of state-of-the-art vocational education opportunities in all counties of Estonia is one of the strategic objectives in developing vocational education. This will also significantly strengthen the prospect of vocational education centres developing into either regional or sectoral development centres in future, as has been described as a vision for 2015 in the current Development Plan for Vocational Education and Training. Only truly state-of-the-art vocational education institutions have a real potential to develop into such centres and participate as active partners in regional or sectoral development projects.

The investments up until 2004 ensured the functioning of the vocational education system but no significant modernisation has been carried out. Therefore it will be necessary in the upcoming period to modernise the study and living conditions of all viable schools. Unless this is done, the schools that have not been modernised will become no longer viable within the coming decade. This, in turn, will have an adverse impact on the accessibility of vocational education in conditions of Estonia's low population density and the main tasks in terms of improving the accessibility and quality of vocational education will remain unfulfilled, which will reduce the chances of positively influencing also the labour market processes through adequate satisfaction of training needs.

The effectiveness and quality of teaching in schools intended for students with special educational needs (SEN) depend greatly on a safe study environment and healthy living and study conditions.

In order to prevent school drop-out, students with physical, speech, sensory and mental disorders and students requiring special treatment due to behavioural problems need to be

provided with the possibility of acquiring basic education according to their abilities in a school whose study environment (form of learning, class rooms, teaching aids, methodology, communication language, specially trained teachers and, where necessary, supporting personnel) is adapted to the special needs of the students. The effectiveness and quality of teaching at schools depends greatly on the teaching conditions. These conditions determine also whether the type of education concerned is accessible to potential students. Like in vocational education schools, this concerns also the study and living conditions, as the schools intended for students with special educational needs are often located too far to attend from home. The number of both students with special educational needs and general education school students with behavioural problems (hereinafter SEN students) has increased both due to social problems and, in particular, due to the principle of state education policy that all SEN students should be involved into the educational system. The learning environment of SEN schools therefore needs to be modernised by securing the necessary investments for supplying all viable SEN schools with high-quality teaching and support structures and aids. Although an elementary basis and some conditions have been created for teaching at SEN schools and the schools are mostly staffed with qualified personnel, the support services necessary for the students are provided only to a minimum possible extent in these schools. Modernisation of infrastructure of SEN schools guarantees better study conditions, but also gives more opportunities to teach basic working habits to SEN pupils.

The target group of youth work comprises all young people aged 7–26 and the main infrastructure of this sector consists of open youth centres, information and counselling centres and hobby schools. The task of these is to ensure the diversity, quality and accessibility of youth work services and support young people's personality development and their ability to be independently functioning and considerate members of society. Furthermore, to guarantee that young people will gain their first knowledge of working habits. In addition, youth work infrastructure has also a crime prevention function, as the information and non-formal learning experience offered by youth work increases young people's social inclusion and expands their choices of positive self-realisation. The youth work infrastructure in Estonia is currently in a very poor state, having been set up mostly by self-initiative, in conditions of minimum financing and, in most cases, in already depreciated premises, or not having received timely and sufficient investments as municipal institutions. At present there are 140 youth centres, 20 information and counselling centres and 300 hobby schools in Estonia. Support is mostly needed in smaller towns and rural local municipalities, since their investment capacity to youth work infrastructures is very low compared to bigger towns.

In order to facilitate the labour market integration of young people, it is necessary to gear the youth work infrastructures for fulfilling the tasks under the European Youth Pact adopted for implementing the Lisbon Strategy in terms of developing youth work services and youth inclusion in a non-formal and informal learning environment with the aim of increasing the competitiveness and competences of young people. Development of the youth work infrastructure contributes to achieving the youth work objectives and measures to be developed through the ESF-supported Human Resource Development Operational Programme.

5.5.2 Modernisation of the study environment of vocational schools

5.5.2.1 Objectives and indicators

Indicator	Explanation	Current level	Reference	Target level
-----------	-------------	---------------	-----------	--------------

			level	
<i>Output indicator for all objectives(1-3)</i>				
Number of VET schools supported with ERF funding	Number of municipal and state VET schools which receive ERF funding in period 2007-2013 for developing infrastructure and equipment. 10 VET schools got ERF support in period 2004-2006 <i>Source: Monitoring reports of the measure</i>	10 (2006)	15 (2010)	31 (2015)

Objective 1: Vocational schools are provided with teaching aids and equipment required for state-of-the art teaching.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicator</i>				
Share of upgraded study equipment and tools in the hands-on training facilities of vocational schools	The level will be assessed on the basis of equipment applied for by schools in relation to the total amount of the equipment needed by the schools. Total level (100%) is 30 000 study places which are equipped with modern technologies. <i>Source: survey by Ministry of Education and Research</i>	11% (2006)	50% (2010)	90% (2015)

Objective 2: Modern living conditions have been created for students in order to ensure the

accessibility of vocational education

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicator</i>				
Share of modernised boarding places at boarding schools	With the calculated standard for boarding place being 12 m ² . The total level (100%) is 5700 student living places. <i>Source: survey by Ministry of Education and Research</i>	15% (2006)	40% (2010)	85% (2015) (4000 modernised boarding places will have been added at boarding schools)

Objective 3: Study infrastructure at vocational schools has been modernised

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicator</i>				
Share of modernised study places in vocational schools	With the calculated standard for boarding place being 12 m ² Total level (100%) is 30 000 study places. <i>Source: survey by Ministry of Education and Research</i>	12% (2006)	25% (2010)	42% (2015) (9000 modernised study places will have been added at vocational schools)

5.5.2.2 Operations to be supported

- Creation of state-of-the art conditions for vocational and practical training at vocational education, i.e. procurement of state-of-the-art teaching aids and equipment of the necessary type and in the necessary quantities
- Renovation and, where necessary, new construction of boarding facilities for vocational schools in order to ensure access to vocational education
- Renovation and, where necessary, new construction of practical and theoretical training facilities of vocational education and the rooms, buildings and utilities for the related support systems

5.5.2.3 Beneficiaries

- State and municipal vocational education institutions or institutions of professional higher education that provide vocational education in the curriculum groups not used

in vocational education institutions in the area of government of the Ministry of Education and Research..

5.5.3 Improvement of the quality of the study environment of schools intended for students with special educational needs (SEN) through developing the relevant infrastructure

5.5.3.1 Objectives and indicators

Objective: The study environment of SEN schools meets the applicable standards and is adapted to the specific needs of the students.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of SEN schools supported with ERF funding	Number of SEN schools which get ERF funding in period 2007-2013 for developing study and living conditions and meet the applicable standards <i>Source: project implementation reports</i>	0 (2006)	4 (2010)	9 (2015)
<i>Result indicator</i>				
Number of SEN students who benefit from modernisation of study and living conditions (incl. possibilities for developing their working skills) and application of standards	Renovated school buildings allow the schools to apply the support structures necessary for students and renew the furnishings and technical equipment <i>Source: project implementation reports</i>	0 (2006)	300 (2010)	1500 (2015)

5.5.3.2 Operations to be supported

- Renovation of schools intended for students with special educational needs – bringing of the study and living facilities into conformity with the applicable standards and adaptation of the facilities to the special needs of students.

5.5.3.3 Beneficiaries

- SEN schools.

5.5.4 Modernisation of open youth centres, information and counselling centres and hobby schools

5.5.4.1 Objectives and indicators

Objective: Youth work infrastructure is supporting the regional accessibility of youth work services and involvement of young people in youth work activities.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
Number of open youth centres, information and counselling centres and hobby schools funded from ERF	Number of objects to be supported from ERF during the period 2007-2013. 14 open youth centres, information and counselling centres and hobby schools were supported over the period 2004-2006. <i>Source: project implementation reports</i>	14 (2006)	20 (2010)	45 (2015)
<i>Result indicator</i>				
The physical environment of open youth centres (140 in total), information and counselling centres (20) and hobby schools (300) meets the needs of young people and supports the provision of youth work services.	Share of renovated/constructed open youth centres, information and counselling centres and hobby schools in their total number (460). The investments will be channelled into the main structural units of youth work on the basis of regional considerations, the number of young people in the region and regional needs for developing a youth work network. <i>Source: survey by Ministry of Education and Research</i>	3% (2006)	5.5% (2010)	10% (2015)

5.5.4.2 Operations to be supported

- Renovation and construction of the rooms and buildings of open youth centres, information and counselling centres and hobby schools and the surrounding environment necessary for providing the services
- Development of information technological infrastructures
- Procurement of state-of-the-art equipment, inventory and tools for securing the supporting technical and material base for youth work

5.5.4.3 Beneficiaries

- Institutionally: open youth centres, information and counselling centres and hobby schools;
- Administratively: local authority agencies or agencies in their jurisdiction, foundations, non-profit associations, state institutions, private bodies.

5.5.5 Contribution to horizontal themes

Regional development

The priority axis will be implemented taking into account the location of schools and youth centres, accessibility of education and services and their impact on the local labour market. Vocational training centres are important for regional development, upgrading of them has positive impact on the surrounding area. Development of youth centres outside major centres will remarkably widen up the self-realisation possibilities of rural youth.

Environmental protection

The infrastructure will be modernised ensuring compliance with environmental requirements at the project level through environmental impact assessment where required by the Environmental Impact Assessment and Auditing Act.

Development of information society

The measure will contribute to improving the information technological equipment of the education institutions.

Equal opportunities

Implementation of the priority axis will have a direct impact on equal opportunities. The vocational education institutions to be renovated will be adapted to the needs of persons with reduced mobility to improve the access of people with special needs. The classrooms of SEN basic education schools will be renovated and modernised in accordance with the applicable requirements. When modernising the open youth centres, information and counselling centres and hobby schools, their buildings will be adapted to persons with reduced mobility.

Development of civil society

Modernisation of open youth centres, information and counselling centres and hobby schools will have a direct impact on the development of civil society. Implementation of the measure will provide children, young people and adults with access to hobby education, information and training in state-of-the-art conditions, which in turn will create a basis for involving people in active life and extend their possibilities of contributing to the development of the society.

The non-governmental organisations are among potential beneficiaries of support provided for activities in the priority axis. This indirectly supports the development of civil society, as

the receipt of Structural Assistance should contribute to the rise of the capacity of receiving organisations to plan, manage and evaluate projects and finances – thereby contributing to the increase of organisations’ capacity to be active in their respective area and development of partnership.“

5.5.6 Major projects

None.

5.5.7 Linkages with other operational programmes and strategies

5.5.7.1 *Linkages with other priority axes and operational programmes*

Living Environment Development Operational Programme

The current priority axis complements, first of all, the operations under the priority axis “Integral and balanced development of regions”, as both state and municipal schools are part of a single education system. Development of youth centres will complement the development of other social infrastructure by local authorities.

Human Resource Development Operational Programme

The Human Resource Development Operational Programme is the operational programme with closest connection with the priority axis “Development of education infrastructure”. The operations planned under the priority axis “Investments in education” will provide a basis for implementing a high-quality education system as planned under the Human Resource Development Programme. Modernised infrastructure will ensure better study and work conditions both for students and for teachers and increase the share of students opting for vocational education. Operations under the Human Resource Development Operational Programme will include raising the quality of youth work, the effective implementation of which is conditioned on investments in youth work infrastructure under the current priority axis.

5.5.7.2 *Connections with the priorities of the National Strategic Reference Framework for structural instruments 2007–13*

Growth of research and development capacity and business innovation and productivity

A high-quality education system constitutes a foundation for research and development activity. The above priority, in turn, ensures the training of top specialists and influences the quality of education through higher education. Knowledge-based society and high added value business can only be built up with highly educated people, incl. skilled workers with high qualifications and motivation. In conditions of growing economy, however, another important factor next to the qualification of work force is the general size of labour force. The above priority deals, among others, with increasing labour supply.

Better connections

Better transport and communication possibilities will have an impact on the optimisation of the school network and ensure better access to educational institutions located further from the place of residence. The development of state e-services and local roads and transport will create prerequisites for improving access to health, welfare and other public services. Development of e-health services will contribute to the development of information society, from which, in turn, depend the use possibilities and spread of the services.

Increased traffic safety due to the development of transport networks will reduce the number of casualties and injuries from traffic accidents, which is expected to have a positive impact on public health indicators.

Sustainable use of the environment

The environment is an important health factor and the reduction of environmental health risks is very closely connected with the activities of the state in lessening environmental burdens. One of the essential prerequisites for protecting human health is the absence of environmental impacts dangerous to human life and health, which is achieved through preventing and minimising risks from the environment. The more educated and aware the people are, the better the prerequisites.

Integral and balanced development of regions

The health status and social coping of people influence to a great extent their ability to participate in the society, incl. in acquiring education, and have a direct impact on the outcome of the process. On the other hand, the extension of sporting and recreation opportunities helps to improve the existing and create additional opportunities for diverse illness prevention activities and for improving public health in regions. The same activities will also support the creation of better development conditions for children and help to improve the efficiency of youth work. Also, the availability and quality of opportunities for lifelong learning is one of the factors contributing to improving public health but also facilitating the development of the region.

5.5.7.3 Connections with Community Strategic Guidelines

The priority axis will contribute to the guideline “More and better jobs”. One of the priorities under this guideline is to expand investment in human capital through better education and skills, which will be supported by modernisation of vocational education institutions under the current priority axis. Supporting of the development of SEN schools and youth centres is in line with the objective under the Strategic Guidelines formulated as “appropriate attention should be given to investments to improve efficiency in public administration, as well as to education, welfare and health infrastructures”.

5.5.7.4 Connections with the Estonian Action Plan for Growth and Jobs 2005–07 and with the Lisbon Strategy

Measure 3.2 entitled “Increased and more efficient allocation of budgetary resources to activities supporting growth and employment” envisages the increasing of expenditures on research and development and financing of vocational education. Measures 4.1 and 4.2 in Part 2 of the Action Plan consist in ensuring the sustainability and improving the quality of research and development, and developing human capital necessary for R&D advancement and long-term international competitiveness of the enterprise sector. Objective 7 in Part 3 of the Plan envisages improving the flexibility and efficiency of formal education with special emphasis on vocational education, improving the quality of teaching, and improving the employment readiness of young people by improving the effectiveness of youth work.

5.5.7.5 Linkages with other national development plans and policies, incl. the Estonian Rural Development Plan 2007–13 and Estonian Operational Programme of the European Fisheries Fund 2007-2013

Connections with the Development Plan for the Estonian Vocational Education and Training System 2005–2008 approved by recorded decision of 14 July 2005 of the

Government of the Republic

Measures under Objective 5 (the quality of vocational education and training has significantly improved) include, among others, the development of practical training facilities of schools, while measures under Objective 12 (access to vocational education and training is ensured also to young people from disadvantaged families – accessibility of education) include, among others, ensuring boarding places with decent living conditions (formulated in the Plan as the development of an allowance system) to all wishing to use them, which requires also the renovation of boarding facilities.

Connections with the Restructuring Plan for State Vocational Education and Training Institutions 2005–2008 approved by recorded decision of 17 February 2005 of the Government of the Republic

The Operational Programme will, basically, complete the process of restructuring the vocational education institution network in Estonia, as a result of which all viable schools will be maintained in operation.

Connections with the Development Plan for the General Education System 2006–2010” (draft)

It is planned to use the funds of school owners and the ERDF for modernising the SEN schools and boarding school facilities in Estonia and adapting them to the needs of SEN students. Students with special educational needs will be provided with the necessary support services.

Connections with the Rural Development Plan 2007-2013 and OP of the European Fisheries Fund 2007-2013

Upgrading of the VET infrastructure will improve, i.e. conditions for agricultural, forestry and fisheries professional extension training. The training materials, teaching aids and equipment related to general professional training provision in the VETs will be supported from ERDF under the current priority axis. The training materials, teaching aids and equipment related to specific training for specific agricultural, forestry and fisheries sector enterprises will be upon need supported under the Rural Development Plan and OP of the EFF respectively within the training support given to such enterprises.

Prevention of overlapping will be provided by the implementation system using information exchange between the implementing bodies.

5.6 PRIORITY AXIS 6: DEVELOPMENT OF HEALTH AND WELFARE INFRASTRUCTURE

5.6.1 Justification of need

Operations under this priority axis are planned as two sub-axes: development of health infrastructure and reorganisation of the infrastructure of state welfare institutions.

Health care and welfare systems need to be modernized to be able to respond to the needs of the aging population which gives rise to growing health care and social protection costs. In order to ensure adequate accessibility and financial sustainability of the services more efficient and effective use of resources is needed.

Considering the demographic and epidemiological trends as well as medical and technological advancements health system needs to be further restructured.

Quality and accessibility of long-term nursing care services needs to be improved in order to reduce the need for more expensive acute care services provided by hospitals and ensure more appropriate use of health care resources by providing services corresponding to the actual needs of the population.

Providing services to elderly and people suffering from chronic disease in appropriate settings also enables to take over the care-giving functions from close relatives who otherwise would not be able to participate in the labour market.

On the other hand provision of inpatient acute care services needs to be concentrated to allow for more efficient and effective use of the resources. Improved connections between different functional units of the hospital allow to better organize the treatment process and to avoid the unnecessary duplication of facilities, personnel and medical technology.

Improvements in the healthcare infrastructure have indirect impact on the labour market. Better medical treatment will reduce losses of working time as well as support to reducing of inactivity because of medical reasons

Development of state welfare services for children and for adults with special psychiatric needs is regarded as a priority in the area of social welfare. Reorganisation of state welfare institutions and creation of new, home-like institutions integrated into the living environment will enable the creation of better living, learning and working conditions for children and for adults with special psychiatric needs, but also improve their access to public services and expand their possibilities to participate in social and work life. Modernisation of the infrastructure necessary for providing welfare services will significantly improve the quality and effectiveness of and ensure equal access to the services.

Reorganisation of state welfare institutions and creation of new home-like institutions will contribute to the development of welfare services and thereby reinforce also labour market measures through creating new additional jobs in regions. The planned operations also include the provision of in-service training to new personnel through the ESF welfare services supporting labour market integration.

As a result of reorganisation people move out of all the present state welfare institutions for people with mental disorders, as none of them answers to the requirements of contemporary, client-friendly and economical life environment. The realisation of the plan of reorganisation

of welfare institutions and services raises the quality of the services – the living conditions of the clients and the working conditions of the workers improve the clients’ possibilities for hobby-related and developing activities increase, which results in humane services that answer to the principles of contemporary welfare.

When forming the future vision it has also taken into account some recommendations for member states from. The plan of action for involving the rights of disabled people and the disabled people completely into the society – increasing the life quality of disabled people in Europe in 2005-2015”, which is being formed by the Council of Europe presently. For that reason disabled people must be enabled to plan their lives and live in a community as independently as possible. Developing and promoting the housing policy, which encourages disabled people to live in their close communities in appropriate conditions. Ensuring the offering of community-centred services, which enables to move from institution-based service to community-based living.

5.6.2 Development of health infrastructure

5.6.2.1 Objectives and indicators

Objective: Better quality and accessibility of nursing and care services

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicators</i>				
New/reconstructed space for providing nursing and care services (m ²)	<i>Source: project implementation reports</i>	Not applicable	33 000 (2011)	82 500 (2015)
Number of beds opened in the space built/reconstructed for the provision of nursing and care services; incl. number of additional beds	Number of beds opened in newly built/reconstructed space as a result of the project. This shows how many beds will have been opened as a result of the project in space meeting the requirements, which is one of the prerequisites for better quality of services. Includes both the existing beds and those to be created in addition. Number of additional beds is measured as difference between the number of beds opened in newly built/reconstructed space as a result of the project and the number of beds before the start of the project. <i>Source: project implementation reports</i>	Not applicable	600, incl. 300 additional (2011)	1500, incl. 750 additional (2015)

Objective: Acute care infrastructure will create prerequisites for functionally integrated performance of hospitals.

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Result indicator</i>				
Share of hospitals providing stationary specialised medical care in two or more different building complexes (%)	Hospitals listed in the Hospital Network Development Plan whose functional units are located in separate building complexes and which will be concentrated into a single complex as a result of the project. One building complex is understood as buildings located on one plot as defined in the Planning Act. Stationary specialised medical care is defined in the Health Care Services Organisation Act. Provision of psychiatric and tuberculosis care in a separately located building complex is not included. <i>Source: project implementation reports</i>	21% (2006)	16% (2011)	0% (2015)
<i>Output indicator</i>				
Newly built/reconstructed space used for the provision of acute care services (m ²)	<i>Source: project implementation reports</i>	Not applicable	20 000 (2011)	65 000 (2015)

5.6.2.2 Operations to be supported

To improve the quality and accessibility of nursing care services and apply the principles of integrated care hospital buildings which are technically and functionally outdated will be adapted to the provision of long-term nursing care services meeting today's requirements.

Nursing care services will be developed on the basis of the nursing care development plans of the counties which will identify the need and location of services based on the size and settlement of the population of the county, taking into account demographic and migration-related trends.

As much as possible existing infrastructure will be used to develop the services. Where it is not possible to create adequate conditions by reconstructing the existing buildings due to their location, technical condition or configuration, construction of an extension or a new building

will be justified. Pursuant to the principle of integrated care and in order to ensure viable capacity of services, the need for welfare services and the location of the relevant infrastructure in the county will also be taken into account. If appropriate from service provision and economic point of view different welfare and health services will be concentrated into one building.

Priority will be given to develop the nursing care services in county centres where the shortage of long-term care services is the greatest.

The second priority in developing health infrastructure is to optimise the central and regional hospital infrastructure, which will result in concentrating stationary specialised medical care, which is currently provided in different locations, into one complex and reducing the duplication of technology and personnel. In order to ensure regionally balanced development and equal access to health care priority will be given to hospitals which are located in regions with less favourable socio-economic situation (Eastern and Southern part of the country).

5.6.2.3 Beneficiaries

- Hospitals
- Providers of nursing care services

5.6.3 Reorganisation of state welfare institutions

5.6.3.1 Objectives and indicators

Objective: Better living, learning and working conditions ensured for children and for adults with special psychiatric needs

Indicators:

Indicator	Explanation	Current level	Reference level	Target level
<i>Output indicator</i>				
Number of family and activity houses built	Family and activity houses will be completed in 2007–2010. In total, 95 family houses are planned – 29 for children and 66 for people with special psychiatric needs <i>Source: project implementation reports</i>	0 (2006)	95 family houses – 29 for children and 66 for people with special psychiatric needs (2010)	95 family houses – 29 for children and 66 for people with special psychiatric needs (2015)*
<i>Result indicator</i>				
Number of welfare institutions meeting the	The requirements for welfare institutions and welfare services have been established by Regulation	Child welfare institutions	Child welfare institutions 3	Child welfare institutions 5 institutions: 29

requirements	No. 4 of 03 January 2002 of the Minister of Social Affairs. The health protection requirements for adult welfare institutions have been established by Regulation No. 58 of 03 April 2002 of the Minister of Social Affairs and those for child welfare institutions have been established by Regulation No. 4 of 9 January 2001 of the Minister of Social Affairs <i>Source: survey of Ministry of Social Affairs</i>	0 (2006) Welfare institutions for people with special psychiatric needs 0 institutions (2006)	institutions: 19 family houses (2011) Welfare institutions for people with special psychiatric needs 2 institutions : 30 family houses and 6 activity houses (2011)	family houses (2015) Welfare institutions for people with special psychiatric needs 4 institutions: 55 family houses and 11 activity houses (2015)
--------------	--	--	---	--

*Intervention will be completed before 2015

Transfer of state welfare institutions into new buildings will be carried out in three stages: stage I – construction of new buildings for institutions in the worst condition; stage II – transfer of institutions that are presently in a satisfactory condition; and stage III – transfer of institutions that are presently in a relatively good condition (relatively new or have received investments in recent years).

5.6.3.2 Operations to be supported

The planned operations are based on the Welfare Concept approved by the Government of the Republic in 2004 and on the Plan for Reorganisation of State Special Welfare Institutions and Services, approved in 2007. According to these documents the general aim of developing welfare services is to ensure better living and learning conditions for children and for people with special psychiatric needs, and also to improve their access to public services and expand their possibilities to participate in social and work life.

Because most of the buildings of the welfare institutions for people with mental disorders are inappropriate for offering contemporary service, the services move stage-by-stage from the present houses into new homelike (family house) buildings or apartments. The new buildings will be furnished with the equipment necessary for the provision of the service. Certain services require functional items to increase the independence of individuals in their living environment. For instance, people with special needs would require various activities to expand their possibilities of participation in social and work life. This requires adaptation of furnishing among other things. New buildings and apartments based on the family house model are mostly created close to regional centres (towns, township centres, larger dwellings). The reason for transferring the institutions is to create a better infrastructure: transport connection, elementary medical aid, also social and other public services, better chances for finding staff, better chances for organising the support work.

General transfer of special welfare institutions into new buildings would take place in the nearest 15 years in three stages: stage I – construction of new buildings for institutions in the worst condition; stage II – transfer of institutions that are presently in a satisfactory condition;

and stage III – transfer of institutions that are presently in a relatively good condition (relatively new or have received investments in recent years).

First stage will consist of full reorganisation of at least 4 existing welfare institutions (for example Ravila, Kernu, Aavere, Udriku) for people with psychiatric disorders – at least 55 family houses and 11 activity houses will be built in total.

In order to support creating child welfare institutions that are child-centred and follow the family model, the state has begun to reorganise its child welfare homes. During the mentioned process the state owned child welfare institutions will be given to the local administrations of the location of the recent institutions on the basis of agreements that will come to through negotiations.

The main aim of the investments to be made in the frames of the planned operations is to improve the living conditions of the people using the services and reduce the number of persons staying in the existing institutions and also the maintenance costs of the institutions, and the investments will be used for building new houses for those institutions that are today in the worst condition.

The main purpose of the investments made within the planned activities is to improve the living conditions of the people being serviced, to improve the service quality, the working conditions of the worker. In the framework of the latter new buildings will be built and furnished, according the general state concept, for those institutions which are presently in the worst condition or that are best prepared for being given over.

When distributing workers between the new units, we first take into account that the present workers should continue in new and better working conditions. Today in the case of both services there are fewer workers in welfare institutions than required and for that reason new workers are employed during reorganisation in addition to the old ones to fill the unoccupied places. The logistically better locations of new units and infrastructure (for example transport connection) and the further training system of conduction guides and child care workers within ESF, enable to find a solution to the former lack of workers. At the same time the training and further training of conduction guides is being enhanced in order to raise the qualification of workers.

A full reorganisation of 5 existing child welfare institutions (for example Inju, Pärnu, Narva-Jõesuu, Haapsalu and Maidla) will bring along the building of at least 29 family houses. The above investments are planned to be implemented in the years 2007–2010.

5.6.3.3 Beneficiaries

- Ministry of Social Affairs
- Limited company “Services of welfare” (100% state participation)
- Local governments

5.6.4 Contribution to horizontal themes

Regional development

Health and welfare services need to be evenly accessible across all regions of Estonia in order to achieve integral and balanced development of regions.

Environmental protection

Modernisation of health and welfare institutions will result in improved energy efficiency of

the buildings, which will contribute to reducing environmental load. Possible environmental impacts need to be taken into account when planning and modernising the health infrastructure.

Development of information society

The opportunities offered by the development of information society, in particular the development of e-services, which create a favourable environment for advancing information exchange and cooperation between the providers of health services and for optimal use of resources (both human and technological resources), will be made full use of when planning and modernising the health infrastructure.

Equal opportunities

Access to health and welfare services needs to be fair and ensured equally for all groups of society according to their needs.

Development of civil society

Implementation of the current priority axis is not related to developing civil society.

5.6.5 Major projects

None.

5.6.6 Linkages with other operational programmes and strategies

5.6.6.1 Linkages with other priority axes and operational programmes

Human Resource Development Operational Programme

The development of health and welfare infrastructure, acting in synergy with the objectives and operations to be financed from the ESF under the Human Resource Development Operational Programme, will create an environment necessary for the sustainable development of people and the society. Continual further development of the study curricula and study conditions of doctors, nurses and other specialists working in the health and welfare sectors and creation of possibilities for in-service and retraining is essential for ensuring the quality of health and welfare services. The restructuring to be carried out in health and welfare needs to be supported by ESF-funded operations directed to developing and organising in-service and retraining for health and welfare workers.

Economic Development Operational Programme

The investments to be made in developing e-services planned as part of developing the information society will create the necessary preconditions for facilitating cooperation and information exchange between the providers of health services.

5.6.6.2 Connections with priorities under the National Strategic Reference Framework for the use of structural instruments 2007–13

Priority: Educated and active people

The priority axis builds on priority 1 “Educated and active people” of the National Strategic Reference Framework for the use of structural instruments 2007–2013, which is in harmony both with the Lisbon Strategy and the relevant national action plan and with Community Strategic Guidelines.

Development of health and welfare infrastructure, acting in synergy with the objectives and operations to be financed from the ESF under the Human Resource Development Operational

Programme, will create prerequisites for the sustainable development of people and the society.

Priority: Better connections

As inpatient acute care concentrates into bigger centres, it is important to create better transport and communication links to ensure better access to services also to people living outside bigger cities.

Priority: Sustainable use of the environment

Modernisation of health and welfare institutions facilities will improve the energy efficiency of their buildings, which will contribute to reducing the environmental load. On the other hand, the environment is an important health factor and reduction of environmental load will contribute to reducing environmental health risks.

Priority: Integral and balanced development of regions

Ensuring equal accessibility to health and welfare services in all regions of Estonia is necessary for integral and balanced development of regions.

5.6.6.3 Connections with Community Strategic Guidelines

A healthy labour force is identified in Community Strategic Guidelines as one of the keys to achieving the employment objectives of the Community. Improvement of the availability of health services and modernisation of the relevant infrastructure is identified as one of the ways to a healthy labour force. Also the development of supporting welfare services will contribute to increasing labour supply.

5.6.6.4 Connections with the Estonian Action Plan for Growth and Jobs 2005–07 and the Lisbon Strategy

In addition to increasing labour supply (Objective 8), the Lisbon Strategy and the Estonian Action Plan for Growth and Jobs 2005–07 also aim at ensuring the long-term sustainability of fiscal policy (Objective 2). Health and social protection are connected with remarkable expenditures for the society. It is therefore important to modernise both the health and the welfare system in order to ensure more sustainable and efficient use of resources.

5.6.6.5 Linkages with other national development plans and policies

The hospital network will be developed based on the Hospital Network Development Plan approved by the Government of the Republic in 2004 and the Nursing Care Network Development Plan 2004–2015 approved in 2004. The aim of the Hospital Network Development Plan is to create by 2015 an optimal hospital network meeting the needs of the population, by concentrating expensive specialised medical treatment into bigger centres and developing local level services tailored to local needs and possibilities and ensuring the consistency of treatment.

Our future vision of welfare services for adults with special psychiatric needs builds on the Welfare Concept approved by the Government of the Republic in 2004 and the recommendations of the Council of Europe Action Plan to Promote the Rights and Full Participation of People with Disabilities in Society – Improving the Quality of Life of People with Disabilities in Europe 2006–2015.

The Welfare Concept envisages the modernisation of welfare services for adults with special psychiatric needs with the aim of improving their opportunities to participate in economic and social life.

Council of Europe Action Plan to Promote the Rights and Full Participation of People with Disabilities in Society – Improving the Quality of Life of People with Disabilities in Europe 2006–2015 contains the following recommendations for Member States:

- to enable people with disabilities to plan their life and live as independently as possible in the society;
- to develop and promote housing policies which enable people with disabilities to live in suitable housing in their local community;
- to ensure community-based service provision, which enables a move from institution-based care to community-based living.

In addition, development of services is based on the Plan for Reorganisation of State Special Welfare Institutions and Services, approved by the Government of the Republic in 2007; it specifies the volumes of services to be provided on the national level for different services and regions and is based on the following two principles:

- as even as possible distribution of supported living, supported working, daily life support and 24-hour care services across the country (the principle of near-home services). The services of supported working, supported living and daily life support contribute to social coping of people with special psychiatric needs and create better conditions for their entry into work life; and
- regionally distributed special services – enhanced security, enhanced support (the principle of competence centres for a smaller but more difficult client group).

Also the state welfare system for children (substitute home service) will be developed pursuant to the Welfare Concept approved by the Government in 2004, proceeding from which individualisation and subsidiarity are seen as important aims in planning the future of children's welfare service, which can be most effectively provided to clients only at the local authority level.

The obligation of organising children's welfare service lies already now, as set out in the Social Welfare Act, with local authorities, whose tasks consist in resolving the cases of children, protecting their legal rights and providing counselling to them, and acting as a guardianship authority for children placed in foster care or welfare institutions. According to an important principle of the Welfare Concept, the financial resources intended for organising welfare service for children should be transferred to local authorities in order to raise their motivation to prevent children from being separated from their families and increase the efficiency of family-based support. Timely interference in resolving the problems occurring in a family facilitates the social and economic coping of families and supports labour competition, also preventing children from being placed in welfare institution. As separation from family cannot be prevented in all cases, the Welfare Concept also provides for different forms of child welfare service, also envisaging the transfer of presently state-owned welfare institutions for children to local municipalities.

Like in welfare of adults with special psychiatric needs, a national development plan is being drawn up also for the service of child welfare. This development plan will specify the volumes of services to be provided on the national level for each region and provide a basis also for building new family houses.

5.7 PRIORITY AXIS 7: HORIZONTAL TECHNICAL ASSISTANCE

5.7.1 Justification of the need

During the 2007–2013 programming period, the amount of the structural instrument resources allocated by the EU to Estonia will increase considerably. Increased amounts of assistance bring along the need for increased capacity to administer the programmes, in both quantitative (number of staff) and qualitative terms (skills of staff, quality of implementation system, etc).

As a result of the increase in monetary resources, an increased need for further human resources will occur in most areas and in the institutions associated with the administration of structural instruments. Funding from technical assistance enables an increase in institutional capacity through the hiring of qualified workers, as well as the constant training of existing personnel, and the development of their skills. In addition, the existence of stand-alone technical assistance provides extra opportunities for state institutions associated with the implementation of the structural instruments to commission studies and evaluations, and to temporarily hire extra experts. Funds from technical assistance are needed to carry out the tasks required to implement Structural Assistance: monitoring and evaluation; making of payments; carrying out of various controls; the performing of audits and other checks of a required quality.

In addition to the need to ensure the capacity of institutions dealing with the administration of structural instruments in the provision and utilization of support, it is necessary that the applicants and recipients of support have increasingly better access to information on the application and use of support. It is therefore vital to continue active publicity work and to ensure that the official institutions have sufficient resources to develop good quality guidelines and to offer consultations. The constant provision of advice and information will simplify the project management, and will increase the quality of the applications, the payment applications and the monitoring reports, thereby reducing the workload of the administration and reducing the risk of not achieving the results. All these activities support in turn the effective and proper implementation of programmes financed from the structural instruments.

The continued development of the register of structural support is still necessary in order that the functionality of the information system can be adapted to the needs occurring during the new programming period, and to make the use of the register more user-friendly and less of an effort.

OPs under the Convergence objective in Estonia have a joint implementation system - a common Managing Authority, Certifying Authority and Audit Authority as well as a joint Management Information System and a common legislative framework. Most of the Intermediate Bodies deal with more than one Fund and most of the personnel is involved in the implementation of more than one OP, hence implementation structures for different OPs overlap to a great extent. Therefore a large proportion of costs financed from Technical Assistance cannot be easily divided between the programmes and must be financed jointly in order to minimize the costs related to the management of Technical Assistance and to ensure the preservation of the audit trail.

The budget for horizontal Technical Assistance is split between all three OPs implemented under the Convergence Objective and forms a separate priority axis in each of the OPs. The

main criterion used to allocate funds between the budgets of the OPs, is the relative volume of each OP - TA costs are generally proportional to the allocation of funds. However, in order to contract and manage actions and services relating to horizontal TA in an efficient way the following arrangements will be applicable:

- An agreed body may carry out joint procedures for contracting of services and actions considered to be horizontal for the OPs.
- Payments for such services and actions may be made by a single agreed body on the basis of a single invoice and as a block payment from a single account.
- The aggregated expenditure will be allocated on a quarterly basis to the three OPs in accordance with the budgetary allocation and recorded in the accounts of each OP as expenditure incurred.

Therefore at the level of beneficiaries horizontal actions may be contracted jointly and invoices may be paid from a single source without dividing the costs between OPs. Domestically all transactions may be made without dividing budgets or expenditure between OPs.

Hence all horizontal expenditure is divided between the three OPs and entered into the accounts of each of the OPs on the basis of the proportion of horizontal Technical Assistance within OPs and only at the stage when expenditure is declared to the European Commission. It shall be guaranteed that the total amount declared for all the OPs together shall not exceed the total combined amount of expenditure for the three OPs.

The implementation scheme is also depicted in annex 3.

The priority axis' for horizontal technical assistance in each of the OPs shall be used to finance horizontal costs of the administration as well as costs which are very burdensome to manage if they are continuously divided between OPs, there include :

- costs, which are related to the implementation of two or more operational programmes e.g. maintenance and development of the Management Information System, evaluations and studies, which cover more than one Operational Programme, audits etc.
- all salaries and other costs related to personnel, because most of the staff within the administration work with more than one OP and therefore salaries cannot be clearly attributed to any single Operational Programme.

Activities and costs, which are clearly related to the management of one Operational Programme only, are to be financed from the specific technical assistance priority axis in each of the OPs. These include primarily:

- organisation of Monitoring Committee meetings and the meetings of lower level working groups related to the monitoring of the OP;
- evaluations and studies which cover one OP only;
- communication and publicity which is limited to one OP.

5.7.2 Objectives and indicators

The general objective of the priority axis: the operational programmes for the 2007-2013 period, and the National Strategic Reference Framework, in the part related to Structural Assistance, have been successfully implemented.

Thus this priority axis contributes to the achievement of the objectives of all other priority axis.

Result indicators listed have been defined for Technical Assistance as a whole, as all priority axis for Technical Assistance contribute to the achievement of these results in synergy and individual effects cannot be distinguished.

Output indicators have been defined for horizontal Technical Assistance as a whole - check levels and target levels reflect the contribution of all three Convergence OPs. These indicators are complemented by relevant indicators specified for the other (specific) Technical Assistance priority axis in each of the OPs.

Indicator	Explanation	Current level	Check level 2010	Target level
Sub - objective 1: Increase of the awareness of the Estonian population regarding the opportunities associated with the structural instruments.				
Results indicators				
Number of visits to the homepage of Structural Assistance	Communication efforts are focused on raising awareness of potential sources of information. The homepage of structural assistance is the main source of primary information for potential applicants, the general public, journalists etc. Hence the number of visits to the homepage should increase as awareness of structural funds increases. Achievement levels are annual (not cumulative) and aimed at achieving an incremental increase each year. Source: Visits are logged automatically and achievement levels can be checked continuously.	90000/year (2006)	114 000/year	120000/year (2015)
Awareness of the general population on Structural Assistance	This indicator reflects the results of communication activities – increased	28% (2006)	37%	45% (2015)

	awareness of Structural assistance among the general public. This indicator is measured as a percentage of the population. Source: Surveys of awareness, which are carried out on regular (typically annual) basis. Surveys are based on statistical sampling and similar methods, thus results are reliable and can be extrapolated to the population.			
Sub- objective 2: Increased exchange of experiences and greater dispersion of best practices gained in the implementation of Operational Programmes.				
Output indicators				
Number of horizontal evaluations (which cover all Operational Programmes)	Expresses the quantity of horizontal evaluations carried out and thus the availability of evaluation data, which is gathered on the implementation of all Operational Programmes simultaneously. Source: Data gathered by the Managing Authority	-	2	5 (2015)
Sub-objective 3: Increased level of the experience and competence of personnel				
Output indicators				
Number of training events and courses which are targeted at the administration of Structural Assistance and arranged or coordinated by the Managing Authority	As most of training which is specifically related to structural assistance is coordinated by the Managing Authority (and often also held by the Managing Authority, Certifying Authority or Audit Authority) this indicator reflects the	-	90	220 (2015)

	availability of training specifically related to the management of Structural assistance (rather than the development of general skills) for the personnel involved in the management of Structural Assistance. Source: Data gathered by the Managing Authority			
--	---	--	--	--

5.7.3 Operations to be supported

General characterisation of the supporting activities:

- Preparation and adaptation of the systems necessary for the operational programmes and their implementation;
- Preparing the necessary legal framework for the use of structural instruments, developing criteria for the formal appraisal of the project;
- Coordinating the appraisal and selection of projects;
- Organising the monitoring and evaluation of the operational programmes;
- Activities related to audits;
- Activities associated with management checks (including on-site checks);
- Activities associated with the payment procedures and with declaring expenditures;
- Development/administration of the register of structural support, and the implementation of e-solutions to simplify the administration of the structural instruments;
- Activities associated with personnel management and development, including the training of officials dealing with the administration of structural instruments;
- Carrying out studies necessary for the more effective implementation of the programmes;
- Activities associated with the publicity and information provision regarding the structural instruments;
- Supporting activities to help the beneficiaries to prepare and manage projects, including offering consultations, as well as the preparation of necessary guidelines and information materials;
- Other activities necessary for supporting the successful implementation of the operational programmes as well as the realisation and completion of the previous programming period.

5.7.4 Beneficiaries

- Institutions and persons dealing with the implementation of structural instruments

5.7.5 Linkages with other operational programmes and strategies

The priority axis of the general technical assistance for the structural instruments is directly linked to all the operational programmes and supports the implementation of all the operational programmes and the other axes contained therein.

All the operational programmes contain additional technical assistance resources for both horizontal and OP specific technical assistance. In order to avoid the risk of activity overlap, the range of activities and expenditures that can be financed from the technical assistance planned within the sectoral operational programmes is limited. All costs associated with horizontal costs and personnel (incl. salaries, training) are planned to be financed from priority axis for horizontal technical assistance located in each of the OPs, and the specific technical assistance planned separately in the operational programmes will cover the costs associated with the monitoring, evaluation, studies and communications of individual operational programmes.

Increasing administrative capacity is one of the most important priorities of the European Social Fund in the 2007-2013 period, and it partially results from the Lisbon strategy, and is also emphasised in the Community Strategic Guidelines. Most of the activities associated with increasing general administrative capacity have been planned to be part of the Enhancing administrative capacity priority axis in this Operational Programme. This priority axis covers the administration as a whole, and therefore also covers the officials associated with the implementation of the structural instruments. In order to avoid overlap in the activities specifically regarding the administration of the structural instruments, and to ensure the mutual additionality of the measures, the activities funded from technical assistance (including the preparation of training schemes, and the carrying out training) will be coordinated with other measures targeting the increase of administrative capacity that are financed from other sources, including regular information exchange between the Ministry of Finance and the State Chancellery regarding the planning of measures and training.

The situation on administrative capacity related to the use of structural instruments is described in the sub-section “Increasing the operational programme- based administrative capacity” in the Estonian National Strategic Reference Framework 2007-13.

5.8 PRIORITY AXIS 8: TECHNICAL ASSISTANCE

5.8.1 Justification of need

As the volume of Community assistance to be allocated to Estonia from the EU structural instruments will increase in the programming period 2007–2013, also the volume of resources required for managing the support funds and ensuring the implementation of the operations will increase. It is important to programme technical assistance separately because the implementation of programmes funded from the structural instruments will be an additional operation and additional resources need to be planned for maintaining and increasing administrative capacity in order to ensure efficient and effective implementation of the programmes. Thus, technical assistance will support the targeted and effective

implementation of all other priority axes.

All Operational Programmes include a priority axis “Horizontal technical assistance”, which will be used as a framework for financing the expenditures that are common for all operational programmes, and also those operations and expenditures whose administration through several operational programmes is so complicated and resource intensive. The priority axis “Technical assistance” under the current Operational Programme will be used for financing the operations and expenditures directly related to the implementation of only this particular Operational Programme.

The current priority axis is related, first of all, to the need to ensure the performance and effectiveness of the process of monitoring the Operational Programme. Also, the resources under this priority axis will be directed into information and publicity measures in order to increase the awareness of the public and applicants of the Operational Programme and the operations to be supported thereunder. In addition, the resources have been planned taking into account the need to conduct assessments in order to assess and, where necessary, increase the effectiveness of implementing the Operational Programme.

5.8.2 Objectives and indicators

Objective: Operational Programme for the Development of the Living Environment effectively implemented.

Indicators:

<i>Indicator</i>	<i>Explanation</i>	<i>Current level</i>	<i>Reference level</i>	<i>Target level</i>
<i>Output indicators</i>				
Number of priority axis specific evaluations	Characterises the specific evaluations done under six axes (excluding technical assistance). Source: Managing Authority	0	3(2010)	6(2015)
OP-specific major publicity events for the general public and potential applicants	Characterises the amount of major publicity events directly related to the implementation of the Operational Programme. Source: Managing Authority	0	4(2010)	7(2015)

5.8.3 Operations to be supported

- Research and evaluations supporting the implementation of the Operational Programme;
- Information and publicity work related to the implementation of the Operational Programme;
- Organisation and servicing of the meetings of the Monitoring Committee and Steering Committees of the Operational Programme;

- Other operations required under the Operational Programme and eligible for technical assistance;

5.8.4 Beneficiaries

- Agencies and persons involved in the implementation of structural instruments

5.8.5 Linkages with other operational programmes and strategies

The current priority axis “Technical assistance” is connected with all other priority axes under this Operational Programme and supports the successful and effective implementation of the key operations of the entire Operational Programme.

Technical assistance funds have been planned also under the priority axis “Horizontal technical assistance” of all Operational Programmes, which will be used for financing the actions and expenditures common for all operational programmes and also the expenditures whose administration under separate operational programmes would be technically complicated. The actions planned under “Horizontal technical assistance” do not overlap with those specified under the current priority axis of the current Operational Programme.

Increased administrative capacity is a prerequisite for effective implementation of EU structural instruments. The majority of operations related to increasing the administrative capacity are planned as part of the priority axis “Increased administrative capacity” under the Human Resource Development Operational Programme. The above priority axis covers administration as a whole and thus encompasses also the agencies involved in the implementation of structural instruments. The operations to be funded from technical assistance will be planned taking into account the orientation and essence of measures planned to strengthen the general administrative capacity in the country.

The current situation in the administrative capacity related to the use of structural instruments is described in the Estonian National Strategic Reference Framework for the use of structural instruments, in sub-chapter entitled “Increasing the administrative capacity for implementing the operational programmes”.

6 FINANCING OF THE OPERATIONAL PROGRAMME

6.1 *Financing plan for the Operational Programme 2007–2013 – total budget breakdown by priority axes*

Reference number of operational programme (CCI number): 2007EE161PO002

Figures are presented in EUR, current prices.

	Fund	Community contribution (a)	Public sector contribution (b)	Private sector contribution (c)	TOTAL (d)=(a)+(b)+(c)	Rate of Community contribution (e)=(a)/(d)	EIB contributions	Other funding
Priority axis 1: Development of water and waste management infrastructure	CF	626 334 156	93 617 551	16 912 006	736 863 713	85%		
Priority axis 2: Development of infrastructures and support systems for sustainable use of the environment	ERDF	92 032 774	9 749 659	0	101 782 433	90%		
Priority axis 3: Development of energy sector	ERDF	28 760 241	0	44 099 037	72 859 278	39 %		
Priority axis 4: Integral and balanced development of regions	ERDF	388 582 823	68 573 439	0	457 156 262	85%		
Priority axis 5: Development of education infrastructure	ERDF	212 765 713	1 188 193	0	213 953 906	99%		
Priority axis 6: Development of health and welfare infrastructure	ERDF	169 110 222	51 457 649	0	220 567 871	77%		
Priority axis 7: Horizontal Technical Assistance	ERDF	28 553 498	5 038 853		33 592 351	85%		
Priority axis 8: Technical Assistance	ERDF	2 759 832	0		2 759 832	100%		
Total:		1 548 899 259	229 625 344	61 011 043	1 839 535 646	84%	0	0

The EU contribution has been calculated in terms of total eligible expenditure (incl. public and private expenditure) in accordance with EC regulation No 1083/2006 articles 53 and 55.

EIB and other funding contributions to financing of priority axis has not been initially planned.

6.2 Financing plan for the Operational Programme 2007–2013 – Community contribution breakdown by year and fund

Reference number of sectoral operational programme (CCI number): 2007EE161PO002

Figures are presented in EUR, current prices.

	Financing from structural funds (ERDF) (1)	Cohesion Fund (2)	Total (3) = (1)+(2)
2007	123 070 624	68 252 789	191 323 413
2008	117 871 086	74 312 994	192 184 080
2009	122 644 751	80 918 751	203 563 502
2010	132 849 800	88 119 323	220 969 123
2011	111 083 755	96 056 639	207 140 394
2012	152 423 663	104 717 089	257 140 752
2013	162 621 424	113 956 571	276 577 995
Grand total 2007- 2013	922 565 103	626 334 156	1 548 899 259

7 INDICATIVE BREAKDOWN OF FUNDING BY CATEGORY

Dimension 1 Priority theme		Dimension 2 Form of finance		Dimension 3 Territory	
Code *	Amount**	Code *	Amount**	Code *	Amount**
3	60 128 079	1	1 548 899 259	1	788 726 377
11	12 213 516			3	31 576 125
23	33 545 179			5	728 596 757
25	22 367 160				
43	28 760 241				
44	70 302 813				
45	203 878 160				
46	203 878 160				
50	138 045 325				
51	21 729 961				
53	38 346 989				
54	51 768 435				
55	12 213 516				
56	12 213 516				
57	12 213 516				
58	12 213 516				
59	50 733 067				
61	15 165 595				
75	264 594 864				
76	145 716 641				
77	24 059 284				
78	7 923 127				
79	75 575 269				
85	22 842 798				
86	8 470 532				
Total	1 548 899 259	Total	1 548 899 259	Total	1 548 899 259

* The categories have been coded for each dimension using the standard classification based on Commission Regulation No 1828/2006.

** Estimated amount of the Community contribution for each category, in EUR and current prices.

8 MANAGEMENT OF THE OPERATIONAL PROGRAMME

This chapter describes various mechanisms and aspects related to the coordination of different financial mechanisms and Operational Programme and the management of the Operational Programme in accordance with article 37 paragraph 1 point g) of Council Regulation (EC) No 1083/2006. The implementation of activities financed in the frames of the Operational Programme shall take place in coherence with principles defined in the regulations of the Council of the European Union and the European Commission as well as those derived from the national legislative framework.

8.1 *Coordination between different financial instruments and Operational Programmes*

One of the necessary preconditions of purposeful and successful implementation of structural assistance is efficient coordination between the authorities involved in the administration of funds: in planning, budgeting and utilization of assistance. In designing the coordination system, it has been taken into account that in reality many activities divided between Operational Programmes are mutually supportive and form an integral whole. In addition, it has been considered that activity areas eligible for financing under this Operational Programme are on many occasions also financed from national resources or from other EU instruments. Thus, complementarity between different funds needs to be ensured and overlapping avoided.

The coordination system encompasses activities at different levels, all of which apply to the whole planning and implementation cycle: incl. the preparation of programmes and measures, their administration, monitoring and evaluation, risk management etc

1) On a strategic level, the following mechanisms are used to ensure coordination above Operational Programmes and between different financing instruments:

- the planning of all state's budgetary funds, including all EU assistance, takes in 2007-2013 place in the framework of a unitary budgeting process (i.e. compilation of the state budget strategy and the annual budgets). Therefore, budget decisions are made with a view of all the funds and the use of the funds are harmonized when needed;
- monitoring of the usage of all budgetary funds is performed by the Steering Committee of State Budget Strategy that also monitors the mutual complementarity of different measures or instruments and proposes the reorientation of funding upon need;
- issues related to the utilization and targeting of budgetary funds are regularly discussed in the meetings of secretary generals of ministries involved;
- The Cabinet receives aggregated reports on the use of all EU assistance on a regular basis, in addition the Cabinet discusses issues related to the reorientation of funding;
- thematic coordination within different fields or sectors, including the enhancement of mutual effect of different instruments and activities, takes place mainly through management bodies which have been put in place for steering the implementation of OP-relevant national sectoral development plans (i.e. strategies). The tasks of those bodies include monitoring and steering of the implementation of development plans, incl. the related use of different funds. These bodies are formed of the representatives

of all relevant ministries, including the Ministry of Finance upon a need, and social-economic partners;

2) Coordination in the preparation of this Operational Programme takes place via the following mechanisms mainly:

- an inter-ministerial working group was established for coordinating the Operational Programme for Development of Living Environment and following thematic working groups were established where all relevant ministries were involved (incl. Ministry of Finance and Ministry of Agriculture):
- working group on environment and environmental protection;
- working group on regional and local development;
- working group on education, health care and social welfare.
- on occasions when a field of activity has been divided between the Operational Programmes, it has been provided that the activities are directed at achieving similar objectives. Among else mutually consistent actions funded by both ESF and ERDF have been considered;
- in areas where coordination with other EU financial instruments (European Agricultural Fund for Rural Development, European Fisheries Fund, 7th Framework Programme etc.) is important, the authorities responsible for planning and implementation of those instruments have been involved in the formulation of the relevant priority axis;
- synergies and demarcation lines between a concrete priority axis and the other priority axis, the rural development plan, the fisheries development plan, other national development plans and policies were mapped in the process of planning activities – an overview of these linkages has been presented under the description of activities within each priority axis of the Operational Programme (see sub-chapters “Links with other Operational Programmes and strategies”).

3) Coordination between different authorities during the elaboration of measures to be financed within the framework of the Operational Programme takes place as follows:

- the ministries involve other authorities which have a relevant interests in the area as well as social partners when needed into the process of the preparation of a measure;
- the use of the existing state’s electronic system for harmonization of legal acts ensures that the ministries incl. the Ministry of Finance have access to draft legislation of the other authorities (incl. measure decrees) and a possibility to comment that legislation;
- Ministry of Finance is involved in the process of preparing all measure decrees via participation in the management committees of the Operational Programmes. Ministry of Finance assesses the consistency of all planned measures with the content of the Operational Programme and its defined objectives as well as the compliance between different measures;
- in order to avoid overlapping, improve coordination and inform potential applicants, Ministry of Finance shall prepare a common reference document which shall contain information about the measures, eligible activities and applicants of the structural assistance, rural development measures and fisheries measures;
- the annual budgeting of financial measures takes place within the unitary framework

of state budgeting, which enables to improve the synergy of measures and different financing instruments. It also enables to clarify the demarcation lines between activities on annual basis and in the course of the budget year if necessary;

- evaluations above the level of single policy areas or strategies are organized. These evaluations allow to evaluate the mutual consistency and effects of activities implemented by different ministries and to assess potential for more effective use of funds. The outcomes of evaluations will be used as an input to amend the elaborated measures when needed.

4) Coordination in the selection and financing of single projects takes place using the following possibilities:

- an obligation of harmonization between different authorities shall be put in place on a level of a measure procedure or on a level of decree in the measures for which the coordination between authorities is vital at the level of single applications or projects. This will be done mainly in order to avoid double financing from different measures or instruments. The risk of double financing is further reduced by the use of the cross-checking function of the structural assistance registry that allows to identify all previous applications and financed project of the same applicant;
- the lists of projects approved shall be made public – this will give an overview of the assistance granted and will enable to check which activities have already been financed;
- Ministry of Agriculture and relevant Intermediate Bodies in its jurisdiction may participate in project selection, if they possess necessary expertise;
- approval of the investment plans by the Government allows for highest-level inter-ministerial consultation. All ministries are welcomed to become acquainted with the materials of the sessions of the Government;
- county development centres aggregate and upon a need also coordinate initiatives at the regional level. In addition, county development centres offer advisory services for all major categories of applicants (municipalities, NGOs and entrepreneurs) as well as for the recipients of assistance;
- in cases where it is not possible to finance an entire project in the framework of one measure and an application is submitted for financing only a part of the project, it shall be considered in the process of appraisal and approval of the application whether financing is also secured for the other activities necessary for the successful implementation of the whole project (from other measures of structural assistance, from other types of EU assistance or from other sources). The applicant in the application form shall submit information regarding the linkages between the planned project and other activities/projects. Similar mechanism is used in the most measures of the programming period 2004-2006;
- consistency with the development plans of a sector, region or municipality is generally required in the case when the project is implemented by the public sector. This necessary for ensuring to steer the development of a sector or a region in the desired direction;
- continuous communication and exchange of information takes place between the authorities in charge within and between these different levels of coordination and in addition to the coordination mechanisms listed.

Besides the coordination mechanisms that are used in planning, preparation of measures and financing of projects there are also communication mechanisms and data exchange possibilities that are connected to the coordination and preparation of the implementation system of the structural assistance:

- the Operational Programme has a single joint Managing Authority, Certifying Authority and Audit Authority that facilitates the formulation of common solutions, the exchange of experience and cooperation as well as coordination in the system as a whole;
- the legal framework necessary for the implementation of the Operational Programme is common for all Operational Programmes;
- all relevant ministries and important social-economic partners participate in the work of the Monitoring Committee of the Operational Programme. Ministry of Finance and Ministry of Agriculture are represented in all Monitoring Committees;
- authorities which implement the Operational Programme participate in thematic working groups to prepare and improve the implementation system (e.g. legal working group, financial and monitoring working groups etc). In those working groups all authorities dealing with structural assistance are involved. There is also a central administrative working group that has been formed to take actions to prevent and to solve the problems that are common for all the Operational Programmes and the system as a whole;
- Ministry of Finance organizes regular training events and seminars to facilitate exchange of experiences, to present guidance and standards that have been elaborated, and to ensure communication between various authorities. These events and seminars involve the entire administration of structural assistance as well as that of other financial instruments if necessary.

Economic and social partners (as well as other partners) are involved in the planning and implementation of the Operational Programme in the following manners:

- Establishment of a separate Monitoring Committee for the programme facilitates the involvement of partners who have the most expertise and stake in areas relevant to the Programme without extending the size of the Monitoring Committee to an unreasonable size. Hence, partners are invited to take part in the discussions and the decision-making processes of the Monitoring Committee which is the main body for addressing and coordinating the implementation of Programme. While the size and the composition of the Monitoring Committee may vary over course of the programming period, generally partners will form around 1/3 of the membership.
- Partners have been involved in the process of planning and elaboration of the NSRF and the OPs via different working groups (incl. the main inter-ministerial working groups), already in the pre-programming phase of preparation of underlying national sectoral strategic documents. Partners have also had multiple opportunities to comment the documents, after which they have received detailed feedback on whether their comments were taken into account and justifications in cases where the comments were not taken aboard.
- Relevant social partners are involved in committees and boards in which the national policies that involve in funding both structural funds and national funds are

discussed, formulated and elaborated – i.e. in thematic coordination, This provides relevant social partners with access to the process of fundamental and higher-level policy formulation and monitoring

- Social partners are involved in the elaboration of measure decrees in a variety of manners (membership in working groups, they have an opportunity to comment draft measure decrees, etc), the exact choice of which depends on the policy area. Measure decrees set the precise nature of activities to be financed as well as the conditions related to the application and utilization of grants.
- On many occasions partners contribute substantially to evaluations of the programme - they provide grass-root level opinions and data on the needs of the target groups as well information on the perceived bottlenecks in implementation. They often also participate in the discussion of the observations made as a result evaluations.
- Representatives of partners may be involved in project selection in some measures if they have the relevant expertise and on the condition that their participation does not jeopardise the unbiased nature of project appraisal.

8.1.1 EU Strategy for the Baltic Sea Region

The Baltic Sea States in cooperation with a number of stakeholders actively contributed to the preparation of the EU Strategy for the Baltic Sea Region in 2008-2009, a document endorsed by the European Council along with a preliminary Action Plan in October 2009.

The four pillars of the Strategy aim at making the Baltic Sea Region prosperous, safe and secure, environmentally sustainable as well as attractive and accessible. Activities facilitating the achievement of such goals are divided between fifteen policy areas. Estonia is the coordinator of the priority area “To remove hindrances to the internal market in the Baltic Sea Region, including to improve cooperation in the customs and tax area”.

During the programme period 2007-2013, structural funds are a major source of funding the activities necessary to achieve the Strategy goals. Certain criteria will be prepared allowing for the assessment of whether certain measures (incl. projects) financed through structural funds could contribute to the Baltic Sea Strategy. If possible, a similar approach will be considered for projects financed from other sources.

Of the measures co-financed by the structural funds in Estonia, the following, among others, have considerable impact on achieving the Baltic Sea Strategy goals: the measure of developing water infrastructure (considering the location of Estonia in the Baltic Sea basin), the measure of environmental supervision (especially the projects affecting the maritime environment), measures focused on developing R&D institutions, facilitating cooperation between researchers or enterprises and developing clusters, as well as measures aimed at finding new export markets.

8.2 Implementation of the Operational Programme

8.2.1 Assuring the separation of duties

Due to the fact that Ministry of Finance is the Managing Authority, Certifying Authority as well as the Audit Authority of the Operational Programme and to ensure segregation of duties, functions attributed to these authorities by EU legislation are planned to be divided between different departments of the Ministry of Finance as follows:

- the functions of the Managing Authority will be fulfilled by the Foreign Financing Department;
- the tasks of the Certifying Authority will be performed by the EU Payments' Department;
- the functions of the Audit Authority will be fulfilled by the Financial Control Department.

According to an order issued by the Minister of Finance to establish the segregation of duties within the Ministry, the Head of Financial Control Department is the head of Audit Authority and the head of EU Payments Department is the head of Certifying Authority. The head of Audit Authority has the right to approve and sign all documents related to audit (in all stages of work incl. planning, auditing and reporting). The same functional independence is also given to the Head of Certifying Authority. The Head of Audit Authority and the Head of Certifying Authority both have the right and the obligation to make independent decisions to in relation to the responsibilities laid down for Audit Authority and Certifying Authority in the Council Regulation 1083/2006, the Structural Assistance Act and its implementing decrees.

Establishment of mechanisms described above secures the functional and operational independence of the Audit Authority and the Certifying Authority from each other and from the Managing Authority.

However, as the amount of funding available for Estonia from Structural Funds and the Cohesion Fund increases considerably for the period of 2007-2013, Ministry of Finance shall take steps to further increase the independence of Auditing Authority during the period of 2007-2013 according to recommendations made by European Commission. Any changes to organizational structures or functions, which have an impact of the independence of the Audit Authority, shall be communicated to European Commission in compliance with the deadline set in Article 71 (1) of Council Regulation 1083/2006 and according to the procedure laid down in Commission Regulation 1828/2006.

Separation of duties on the level of unit or at least at the level of official will also be guaranteed when delegating the functions to the 1st level Intermediate Bodies and 2nd level Intermediate Bodies.

8.2.2 Managing Authority of the Operational Programme

The Managing Authority of the Operational Programme is the Foreign Financing Department of the Ministry of Finance. The functions of the Managing Authority shall be officially defined in legislative acts incl. the statute of the Ministry of Finance.

Managing Authority is responsible for the fulfilment of duties defined in article 60 of the Council Regulation (EC) No 1083/2006.

The planned organizational arrangements for the fulfilment of these functions foresee the partial delegation of the tasks of the Managing Authority to 1st level Intermediate Bodies and 2nd level Intermediate Bodies. The planned extent of the delegation of tasks is similar, but not identical to the division employed in the programming period of 2004-2006.

The tasks planned to be performed by the **Managing Authority** are as follows:

1. ensuring that the management and control systems of Operational Programmes are in

compliance with the requirements defined in article 58 of the Council Regulation (EC) No 1083/2006 and in other legislative acts; employing appropriate measures if deficiencies are detected within the systems;

2. coordination of the preparation of the description of management and control systems and presenting it to the European Commission in accordance with article 71 of Council Regulation (EC) No 1083/2006;
3. coordination of publicity and the disbursement of information related to the granting and use of assistance;
4. coordination of the development of the registry of structural assistance and ensuring the possibilities for electronic data transfer between Estonia and the European Commission;
5. ensuring the existence and availability of data necessary for certification;
6. coordination of the preparation of the legislative framework for structural assistance;
7. ensuring the organisation of evaluations above the level of a single Operational Programme.

The tasks planned to be performed by **1st level Intermediate Bodies** are as follows:

1. planning financial resources in the frames of respective priority axis and measures;
2. preparation of the principles for granting aid, the enactment of respective legislation and therefore ensuring the attainment of objectives defined in the Operational Programme;
3. presenting data necessary for reporting on the use of funds;
4. monitoring the use of assistance in the meaning of article 66 of the Council Regulation (EC) No 1083/2006 in cooperation with 2nd level Intermediate Bodies;
5. participation in the work of the Monitoring Committee and in the compilation of monitoring reports in accordance with the arrangements defined in legal acts;
6. organizing evaluations of granting and implementing assistance in the meaning of articles 47 and 48 of the Council Regulation (EC) No 1083/2006;
7. submission of information necessary for the appraisal of major projects to the European Commission.

The tasks planned to be performed by **2nd level Intermediate Bodies** are as follows:

1. distributing information on the possibilities of receiving assistance;
2. handling applications for assistance;
3. checking the compliance of financed actions with the Operational Programme and with national and Community rules;
4. verifying the delivery of goods and services co-financed by the Community; checking the compliance of expenditure declared by the recipients; checking whether national and Community rules are followed in the implementation of actions;
5. ensuring separate accounting of expenditures financed from structural assistance at the level of the 2nd level Intermediate Body and checking of its occurrence at the level of the recipient;

6. checking the compliance of documentation that serves as the basis for payments incl. the performing of eligibility checks and making payments;
7. presenting data necessary for reporting on the use of funds;
8. publishing reviews on the grant and use of assistance.

The Managing Authority issues guidance where it is necessary to insure the proper fulfilment of tasks referred to above. The tasks of the Managing Authority, 1st level Intermediate Bodies and 2nd level Intermediate Bodies are defined in more detail in the national legislation.

8.2.3 1st level Intermediate Bodies and 2nd level Intermediate Bodies of the Operational Programme and the management of the delegation of duties

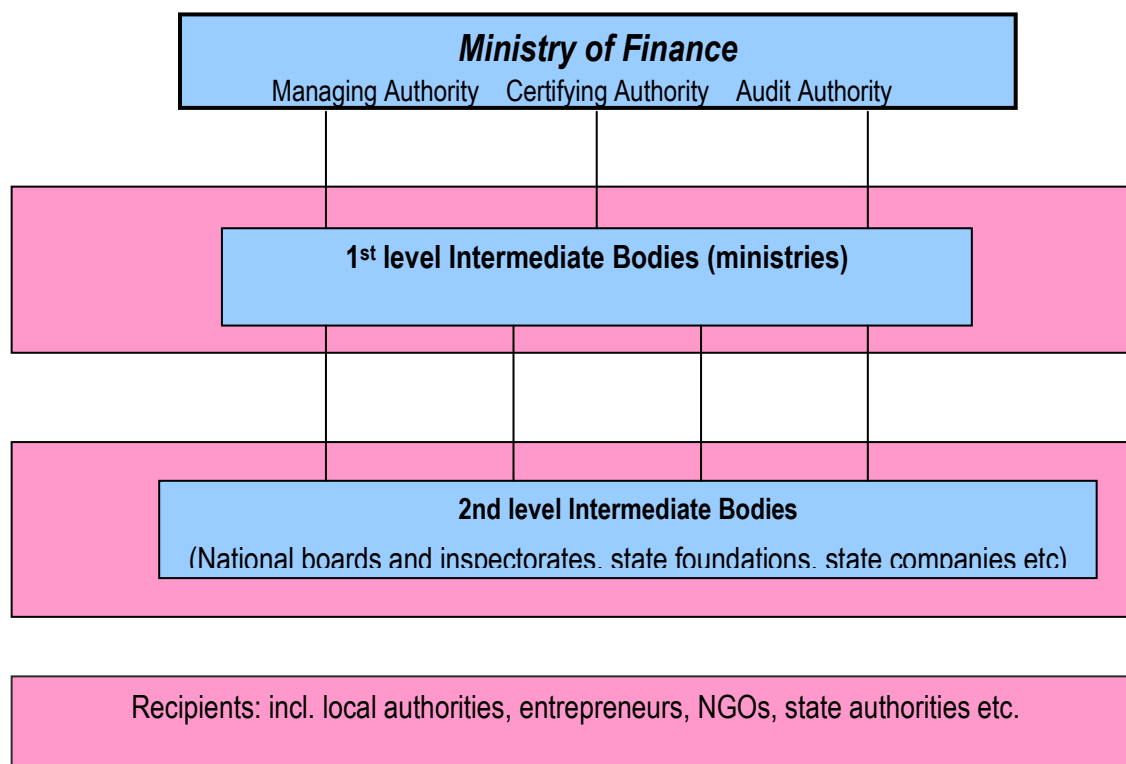
The functions of the Managing Authority and Certifying Authority are delegated to other bodies. The delegation of functions shall be determined and confirmed officially. Upon delegation, a system of reporting shall be created to ensure proper supervision over the performance of delegated tasks.

The most important mechanisms for supervising delegated functions are accreditation of 2nd level Intermediate Bodies, preparation and analyze the description of management and control systems, harmonization of measure decrees and other relevant legal acts, assuring the compliance of activities, monitoring process, project and management and control system audits and the follow up activities to those audits. In addition, supervision is done through the structural assistance registry. Using that registry Ministry of Finance has an access to all data about the projects, information concerning audits and other controls etc. The functions of Audit Authority are centralised, no 1st level Intermediate Bodies nor 2nd level Intermediate Bodies have an obligation to perform audits mentioned in Council Regulation (EC) No 1083/2006, at the same time they have according to the draft audit decree a possibility to perform project audits and management and control system audits according to the annual audit plan compiled by the Audit Authority.

The tasks delegated by the Managing Authority and/or Certifying Authority on the basis of legislative acts and/or contracts are performed by 1st level Intermediate Bodies and 2nd level Intermediate Bodies. The bodies assigned by the Government perform the roles of the 1st level Intermediate Bodies and the 2nd level Intermediate Bodies. The government has assigned the following ministries as 1st level Intermediate Bodies of the Operational Programme for Development of Living Environment: Ministry of Environment, Ministry of the Interior, Ministry of Education and Research, Ministry of Social Affairs, Ministry of Economic Affairs and Communications and Ministry of Finance. The following institutions have been appointed as the 2nd level Intermediate Bodies: Environmental Investment Centre, Enterprise Estonia, Foundation for Lifelong Learning Development Innove, The Credit and Export Guarantee Fund Kredex, Ministry of Social Affairs and Ministry of Finance.³

The delegation of the tasks of the Managing Authority and Certifying Authority to 1st level Intermediate Bodies and 2nd level Intermediate Bodies shall be in compliance with the general principles of the separation of functions.

³ As established by a Decree of the Government on the 19th of April 2007 and subject to change upon a respective decision by the Government.



The general structure of the implementation system of the Operational Programme is on Figure 12.

8.2.4 Arrangements for the project selection

The Operational Programme shall be implemented through the employment of project based implementation schemes. The implementation schemes to be used may be the following.

1) Project designation and selection through open calls for applications, where the applicant submits to the 2nd level Intermediate Body an application, which is in coherence with the description of the priority axis and the activities within it. The 2nd level Intermediate Body arranges the technical control of the application and the appraisal of it (according the general criteria of quality). The selection of projects may take place on the basis of two different procedures.

- Competitive procedure, where the application must be submitted to the 2nd level Intermediate Body before a designated deadline. In this case the 2nd level Intermediate Body shall not only perform a technical control of the application and the appraisal of its content, but it will also compare the applications received by the deadline with each other, involving experts if necessary. The decision to finance a project shall usually be made at the level of the head of the 2nd level Intermediate Body.
- A procedure in the case of which applications may be submitted continuously. Applications are subjected to a technical control (and usually to appraisal); the financing decision is usually made at the level of the head of the 2nd level Intermediate Body.

2) Designation and selection of projects based on the prioritisation of the requirements of the state or the local authorities. In this case a list of projects or a pipeline to be financed from

structural assistance is composed upon an agreement. The Government approves the list of investments. The preparation and composition of the list/pipeline may take place in the following ways:

- Investment plan shall be compiled for funding investments of Local Authorities. The first phase for that is prioritizing of project applications (pre-applications) on the level of a county or in a certain urban area. 1st level Intermediate Body prepares a plan that shall be submitted for Governmental approval.
- In the case of national public infrastructure the Government designates investments (projects) to be financed from structural assistance once a year or less frequently.

All implementation schemes described above may be used in the implementation of the Operational Programme for Development of Living Environment. The decision about which implementation scheme shall be used is decided for each supported activity and shall be stated in the conditions of measures (internal decree based on the Structural Assistance Act 2007-2013). In principle projects that are initiated by state authorities (in some cases also local authorities) to implement a programme or a list of projects, shall be integrated into pipelines. However rounds for applications may be arranged within the same priority axis' and activities, to facilitate the flexible involvement of the non-profit sector, local authorities and other public institutions, and in some cases also to incorporate the initiative and resources of entrepreneurs. The implementation scheme where the list of investments is used shall be used not only for the projects managed by state authorities but also for the activities where in selection of projects the criteria is conformity with the sectoral or territorial development plans. In that case simplified calls for pre-applications are called out. Based on those calls and in accordance with the development plans a list of investments is compiled and projects that have been chosen to the list must prepare a full project application. That method helps to save time and work of many applicants and it also helps to ensure that the implementation of the Operational Programme is regionally balanced and well targeted.

The following general principles shall be followed in determining selection criteria and in the appraisal of projects:

- a project has to be in coherence with the NSRF strategy and correspond to the objectives of the respective priority of the strategy and to those of the priority axis;
- a project has to be relevant in terms of content and timing – it must be based on relevant studies, development plans and substantiated needs;
- projects have to have an economic or social impact;
- projects have to be sustainable and create long term added value;
- the grant has to be necessary for implementing the project;
- applicants have to be capable of implementing the project.

These principles shall generally be reflected by the criteria for the priority axes approved by the Monitoring Committee. The selection criteria shall also take into account the possible impact of the priority axis on horizontal themes and the importance of horizontal themes in respect to its particular objectives. As the objectives and the nature of priority axis and measures vary, some of them will aim towards one or more horizontal objectives and

subsequently the use of compliance or selection criteria on the basis of horizontal themes is at times necessary. For example, the theme, which emphasises balanced regional development, could be the basis for restricting support provided to operations in more affluent regions in order to ensure larger concentration of financing in poorer areas.

The more precise appraisal criteria will be defined in measure decrees approved by the 1st level Intermediate Bodies or the Government and these can elaborate or complement the general criteria approved by the Monitoring Committee to facilitate their application to different measures. In addition 1st level Intermediate Bodies may define specific sector or measure based criteria to ensure better focus of measures. Both the general selection criteria approved by the Monitoring Committee as well as the measure specific criteria are public.

8.2.5 Addressing the cost increases of projects

As the experience of 2004-2006 SPD and Cohesion Funds projects 'implementation has shown (as it was described in chapter 4.1.7), the price increases can have significant impact on the implementation of Structural Funds. To some extent the risk of price increases must always be taken into account and inflation considerations have been factored into the financing plans. Yet, more rapid and major changes in the economic environment than initially predicted may undermine the impact that the Structural Funds could have on the economy, lead to delays in implementation and to ineffective use of funds.

Therefore, it is important to take action for possibly preventing extensive price increases or limiting their impact on projects funded from Structural Assistance. These issues will be addressed with the following measures in the process of implementation (additional measures can be planned and used based on the need), taking also the 2004-2006 programming period experience into account:

- assessing the capability of applicants to implement the desired operation within the foreseen schedule - limiting the impact of price increases which take place over time and become more serious as delays occur;
- close monitoring of larger operations to identify well in advance implementation issues which may lead to delays;
- planning tenders in optimal lots in terms of encouraging the participation of smaller firms and thereby increasing competition within the market, in accordance with the public procurement rules and regulations;
- ex-ante control of procurement documents if needed and careful monitoring of tender proceedings in order to limit the likelihood of a tenders being contested;
- timing the procurement activities of similar tenders better to limit the amounts being simultaneously tendered at any given time within the sector in order to encourage competition and reduce the risk of "flooding" the market.

8.2.6 Monitoring Committee of the Operational Programme

A Monitoring Committee shall be established within three months of the approval on the Operational Programme in order to ensure monitoring within the Operational Programme. The Monitoring Committee shall be established taking into account the principle of partnership and the need to ensure coordination between authorities and funds. Hence it will

include representatives of bodies involved in the implementation of EU financial instruments and those of social partners. The representatives of the European Commission shall participate in the work of the Committee as observers. The meetings of the Monitoring Committee shall generally take place twice a year or at a minimum on annual basis.

The Monitoring Committee:

- assesses the implementation of the Operational Programme incl. the level of the achievement of objectives defined in the Operational Programme on a regular basis;
- proposes necessary amendments to the Operational Programme or its implementation arrangements;
- approves the general project selection criteria;
- approves the annual reports and the final report of the Operational Programme.

In order to improve the efficiency of its operation, the Monitoring Committee may establish additional field specific or ad hoc working groups, which report to the Committee.

8.2.7 Arrangements for monitoring and evaluations

The general arrangements for monitoring shall be defined in legislation in order to ensure a common approach to monitoring in the framework of all Operational Programmes and priority axis within them.

Monitoring data is gathered on several levels of implementation in accordance with the Operational Programme and depending on the nature of indicators defined for the priority axes. Hence, monitoring data will to a large degree be gathered at project level - however achievement levels may also be clarified using studies and evaluations or they may be gathered from general statistics. While the main effort shall be put towards monitoring the achievement of objectives stated in the Operational Programme using the indicators defined for this purpose in the same document, Intermediate Bodies gather data on additional indicators as well, which they consider relevant for a particular measure or operation. The Monitoring Information System facilitates this as all 2nd level Intermediate Bodies have the opportunity to define specific indicators of interest within the system. Thus, a specific set of indicators tailored to individual needs can be used for each of the priority axis and measures and monitored through the reporting system.

Monitoring data is analyzed by administrators at all levels within the implementation system, as implementation reports are compiled by accumulating data from lowest i.e. measure level upward to the level of the Operational Programme and analyzing and compiling the data submitted from the previous level. Monitoring reports of the priority axis are compiled and the necessary measure based analysis and reporting is done by the 1st level Intermediate Bodies. On the basis of the priority axis monitoring reports the Operational Programme lead ministry analyses OP implementation at large, compiles a monitoring report of the Operational Programme and presents it to the Monitoring Committee. The Monitoring Committee of the Operational Programme discusses and approves these reports.

Annual implementation reports shall be prepared in coherence with the requirements of Commission Regulation 1828/2006. Among other things, they shall contain data on achievement levels of indicators, data on the regional aspects of implementation (e.g. amounts disbursed by county) and information on prevalence of the horizontal themes in operations implemented.

In addition to the indicators for measuring the achievement of objectives of priority axes, the following set of EU core indicators will be monitored throughout the programming period and their levels presented in the annual reports:

- Jobs created, (under the whole OP)
 - of this: for men (under the whole OP)
 - of this: for women (under the whole OP)
- Number of waste projects (under axis 1)
- Number of renewable energy projects (under axis 3)
- Additional capacity of renewable energy production (MWh) (under axis 3)
- Number of projects on improvement of air quality (under axis 3)
- Number of projects ensuring sustainability and improving the attractiveness of urban and rural regions (under axis 4)
- Number of education projects (under axis 5)
- Number of benefiting students (under axis 5)
- Number of health projects (under axis 6)

Outside the annual monitoring cycle, data (particularly data on committed and disbursed amounts) is reviewed by the Managing Authority and Certifying Authority on regular basis, to assess whether implementation is progressing at the desired pace and whether it infers to inadequacies, which need further attention. The Government is also informed on financial progress and possible bottle-necks on regular basis in order to facilitate implementation by making adjustments to managing system upon need.

Strategic reports on the implementation of the NSRF 2007-2013 shall cover all Operational Programmes and will be submitted to the European Commission will be prepared twice during the programming period – in 2009 and 2012. The Ministry of Finance shall coordinate the preparation of these reports. Ministry of Finance shall also launch the strategic evaluations necessary for compiling the strategic reports.

The organization of evaluations of the implementation of particular Operational Programme or the priority axes within it shall be the responsibility of 1st level Intermediate Bodies. Thus, evaluations can be launched in accordance with the management needs, based on monitoring results and risk assessment. Evaluations are generally used when information (incl. monitoring data) on implementation of programme in a certain field is too scarce to make management decisions or such information infers to potential problems, which should be studied in more detail before commencing or proceeding with the implementation of relevant measures. The initiative for evaluations may also come from the Monitoring Committee of the Operational Programme, if monitoring data provided to them through annual reports reveals issues which should be examined more in depth or the Monitoring Committee has a specific need for certain information in order to proceed with (financial) decisions. In this case, the Monitoring Committee shall also decide which body is responsible for conducting or commissioning that evaluation.

Ministry of Finance as the Managing Authority is responsible for the coordination of evaluations and conducting of evaluations above the level of single Operational Programmes. Managing Authority shall establish an Evaluation Committee, which will include representatives from all of the Intermediate Bodies and gathers periodically. The Committee's

main function is to discuss and approve annual evaluation plans that will include all evaluations commissioned by the Managing Authority and the Intermediate Bodies. Evaluation to be initiated by any of the parties has to be reviewed and approved by the Committee in the form of evaluation plan preparation to prevent overlapping of activities and increase the potential added value of evaluations by giving all related Intermediate Bodies an opportunity to participate in the preparation of the Terms of Reference etc – as the areas of activities covered by different programmes and measures are interlinked. Evaluation Committee shall also channel evaluation results to other relevant staff of the Intermediate Bodies or the Managing Authority if need be and remind concerned Institutions of planned evaluation activities. Hence, the Evaluation Committee shall be the reference group for planning, coordinating and carrying out evaluations as well as for the process of follow-up.

Although Estonia shall continue the practice of compiling annual evaluation plans, a general framework (plan) for the timing of evaluations shall be established for the entire programming period at the start of implementation of Programmes. This general framework shall include the principles of general co-ordination, likely subject areas for evaluations and an indicative time-frame for evaluations in all jurisdictions. An interim evaluation for the NSRF is likely to be arranged, in accordance with needs to prepare and present the strategic report twice during the programming period. A mid term review of programmes' implementation (incl. evaluation activities) will also be undertaken, the likely timing for such review is around the year 2011.

Generally evaluations are out-sourced by the body responsible for the evaluation and performed by contractors. While the further development of in-house evaluation capacity within many institutions involved is planned in the form of building general policy evaluation and assessment capacity, there are no plans to create separate institutional units within the Structural Assistance administration specifically for the purposes of evaluating the implementation of Operational Programmes.

8.2.8 Collection and electronic management of data

The collection and retention of data shall take place both by using paper based carriers and data in electronic formats. The structural assistance registry is used in the collection and electronic management of data for several purposes incl.:

- to record information necessary for project management;
- to aggregate data necessary for the purposes of financial management and monitoring; to generate reports;
- to enable electronic processing of payment claims.

It is planned to further develop the functionality of the registry in order to facilitate the conversion of more processes related to the management of structural assistance into an IT based form.

The Managing Authority is responsible for the maintenance and the development of the registry; it is also responsible for the arrangement of user support. 1st level Intermediate Bodies and 2nd level Intermediate Bodies are responsible for the collection and recording of data related to the implementation of projects. All the authorities, which use the registry, must guarantee the correctness of inserted data and adequate IT security.

Managing Authority shall ensure the electronic exchange of data with the European Commission in accordance with the regulation of the European Commission. The exchange of data shall take place either by using an electronic data exchange link or via an internet based interface.

8.2.9 Ensuring compliance with state aid rules and public procurement regulations

The area of state aid is in Estonia coordinated by the Ministry of Finance (with the exception of state aid granted in the sectors of agriculture, fisheries and transport, which are coordinated respectively by the Ministry of Agriculture and the Ministry of Economic Affairs and Communication). Ministry of Finance is also responsible for the preparation of legal acts in the field of public procurement and issues necessary guidance on both of these issues.

The Managing Authority shall ensure that any public support under this programme will comply with the procedural and material State aid rules applicable at the point of time when the public support is granted. All individual measures financed from structural assistance shall be analysed by the authorities granting assistance in order to ascertain whether they could entail the granting of state aid (in the meaning of Article 87 (1) of the EC Treaty).

Public procurement shall take place in coherence with the Public Procurement Act and other legislation enacted on the basis of this act. Thus public procurement shall take place in compliance with the respective directives of the European Union. Public Procurement Office is the body responsible for conducting supervision over the application of the Public Procurement Act.

The checks on whether recipients obligated to carry out public procurement also perform it, are conducted mainly within the process of supervision. 2nd level Intermediate Bodies have access to the public procurement register, which can be used to monitor the publication of tenders and the phases of procurement. Information on public procurement to be conducted within projects is also recorded into the structural assistance registry. In addition the registry allows users to submit data enquiries directly to the public procurement register. The checks of compliance with public procurement rules are also an element of management checks and audits of operations.

8.2.10 Considering horizontal themes

Within each priority axis an expected impact on all horizontal themes (such as regional development, environmental protection, promotion of information society, development of civil society and promotion of equal opportunities) is described. Due to the fact that an Operational Programme is a strategic document but specific horizontal impacts appear on a measure and project level, there is no need for more detailed descriptions of horizontal themes in the Operational Programme.

While implementing each measure, its impact on the horizontal themes is taken into account according to the expected relevant and important impacts of a measure. Since the characteristics of the activities supported by different measures are different, it is not rational to consider all horizontal themes in all measures but to focus only on themes possessing substantial and relevant impact. Considering horizontal themes occurs in the implementation process on the measure level and appears:

- in planning of specific objectives and activities in measure conditions;
- in determining relevant compliance and evaluation criteria.

Consistency with horizontal themes is assessed in project selection process and project implementation process if needed. Some specific measures will aim towards one or more horizontal themes more directly. In these cases, the projects will be assessed according to the contribution that they intend to make and specific compliance and selection criteria could be

added to ensure direct consideration of the horizontal theme. For example, the regional development theme could be the basis for restricting support to operations in more advanced regions in order to ensure concentration of financing in less advanced areas.

In general, all recipients of structural assistance will be required to indicate (usually in the project reports) the contribution of their operation (or the lack thereof) towards all of the horizontal themes. Based on this, the data on the number of operations and the financial volume of assistance directed towards achievement of horizontal themes will be gathered and monitored through the Structural Funds reporting system. The relevant information will also be provided to the Monitoring Committee in annual implementation reports. During the implementation of measures different evaluations are carried out in order to evaluate the productivity of implementing horizontal themes.

8.2.11 Financial management

8.2.10.1 Certifying Authority

The Certifying Authority of the Operational Programme is the EU Payments' Department of the Ministry of Finance. The functions of the Certifying Authority shall be officially defined in legislative acts incl. the statute of the Ministry of Finance. In setting up the functions of the Certifying Authority the European Commission "Working document setting out Good Practice with regard to The Certification Function of the Paying Authority" has been followed.

Certifying Authority is responsible for the fulfilment of mainly the following functions:

- preparing consolidated declarations of expenditure and payment applications; submitting them to the European Commission;
- certifying that expenditure declarations are correct and have been prepared on the basis on reliable accounting systems and supporting documents;
- certifying that the expenditure declared is in compliance with national and Community rules and has occurred in accordance with the requirements applied to the Operational Programme;
- taking into account the procedures and controls related to the expenditure to be declared to the European Commission in order to facilitate certification;
- taking into account the results of audits performed by the Audit Authority or under its responsibility in order to facilitate certification;
- ensuring accounting and the retention of accounting data in electronic form in relation to the expenditure declared to the European Commission;
- ensuring that payments to recipients are made correctly;
- ensuring that accounts are kept on recoverable and recovered sums;
- repayment of recovered sums into the budget of the European Union, deducting them from the subsequent expenditure declarations if it is possible;
- preparation of consolidated cash-flow forecasts; submission of forecasts to the European Commission;
- performing controls on the spot according to necessity;

- preparation of horizontal legal acts and guidelines in the area of financial management and in cooperation with Managing Authority also in the area of eligibility of costs;
- provision of advice to 1st level Intermediate Bodies and 2nd level Intermediate Bodies in the field of financial management and eligibility of expenditure.

Some of the functions of the Certifying Authority shall be delegated to other bodies taking into account the general principles of the separation of functions. According to legislation the following tasks of the Certifying Authority are usually delegated (partially or in full) to 2nd level Intermediate Bodies:

- preparation of declarations of expenditure and submitting them to the Certifying Authority;
- Provision of input to the preparation of cash-flow forecasts.

The accounting of structural assistance is arranged in accordance with the Accounting Act in force in Estonia and similarly to the accounting of other budgetary funds.

8.2.10.2 *General process of financial management of structural assistance*

The financial management of structural assistance is linked to the management of two types of financial flows:

- processing of payment claims and making payments;
- applying for funds from the European Commission on the basis of expenditure declarations.

Generally payments to recipients or contractors are made by the 2nd level Intermediate Body in accordance with legal acts regulating payments and on the basis of payment claims submitted by the recipient as well as on the basis of requested invoices or documents proving the occurrence of expenditure. The Certifying Authority generally performs its own controls over the 2nd level intermediate body by checking the payment orders after the payment has been sent for the execution. When performing such controls, the Certifying Authority will not be involved in the approval of payment claims from recipients - the decision to make the payment has been done by 2nd level intermediate body before the payment has been sent for execution to the state treasury.

In cases where clearly ineligible costs have been detected in payment orders made by 2nd level intermediate bodies, the CA asks for clarifications and if the costs remain ineligible also after the clarifications received, the payment order can be sent back from State Treasury to 2nd level intermediate body. The latter can then deduct such costs or make the payment over again if the costs still turn out to be eligible.

The general process of payments is described on the Figure 13.

The payment process within the Operational Programme may diverge from the scheme described above in order to take account the differences in the nature and risk factors of activities, the legal form of beneficiaries etc.

The controls performed over the payment orders by Certifying Authority after the approval of payment claim from beneficiaries by 2nd level intermediate body is an important input for gaining assurance for certifying the costs to the Commission as required by article 61 (b) in General Regulation and to react as quickly as possible to any kind of misuse of the structural

assistance in accordance with the art 98 and 61 (f) in General Regulation.

The application for funds from the European Commission shall take place according to the needs of the administration, but generally four times a year. 2nd level Intermediate Bodies compile expenditure declarations and forward these to the Certifying Authority. The functionality of the management and control systems, as well as the eligibility and regularity of expenditure are confirmed by the Managing Authority and the 1st level Intermediate Body. The Certifying Authority performs relevant controls in order to satisfy itself on the correctness of data declared; conducting these controls also on the spot, if the need for it should arise. CA has the right to deduct costs from the expenditure declaration when they appear to ineligible, when serious irregularities have been detected in some measures or when the Managing Authority does not confirm the functionality of the management and control systems in some areas.

Subsequently to being ensured that the management and control systems guarantee reasonable certainty in relation to the eligibility and regularity of expenditure, the Certifying Authority forwards the consolidated and certified payment application and expenditure declaration to the European Commission.

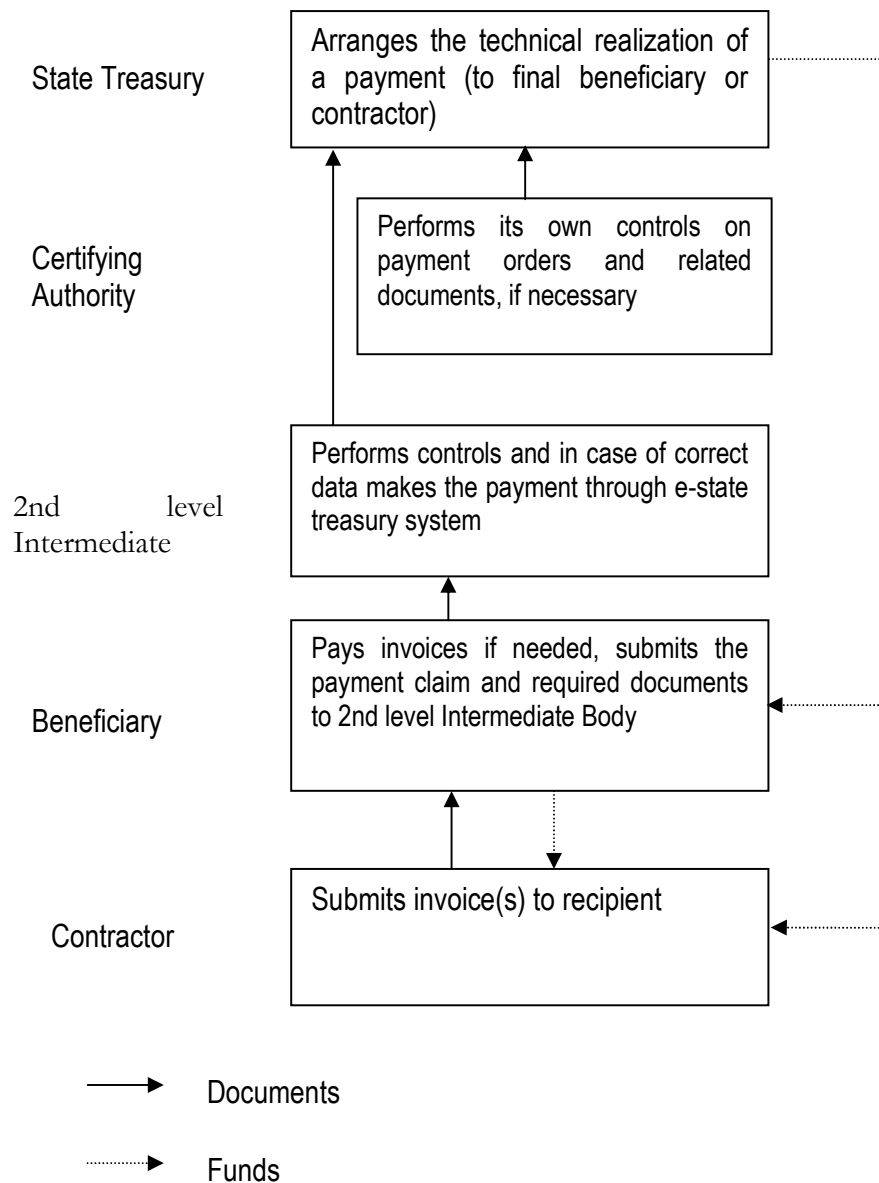


Figure 13. The general scheme of payments for the Operational Programme

The general process of the preparation of expenditure declarations and payment applications to the European Commission is depicted on the Figure 14

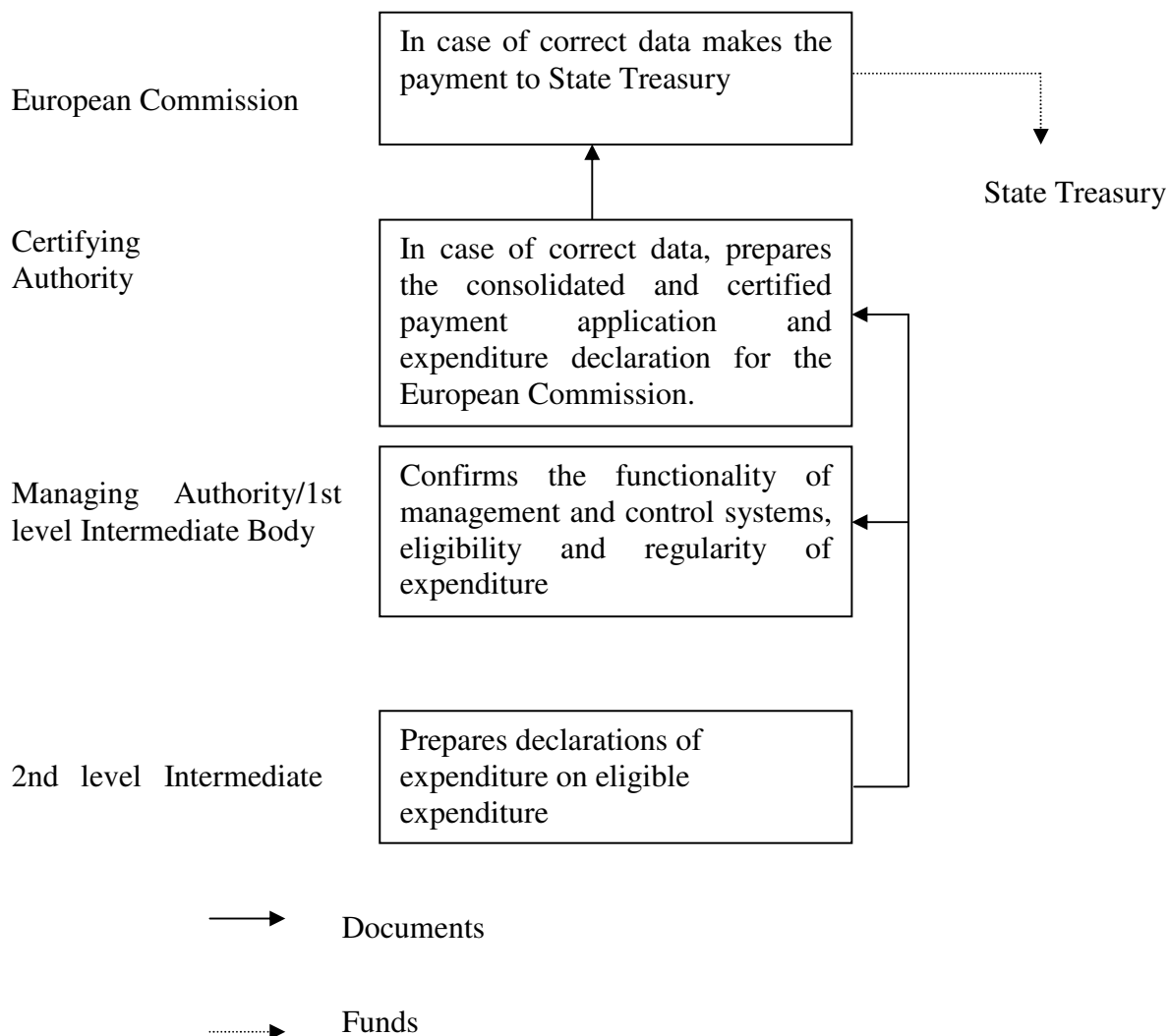


Figure 14. Preparation of expenditure declarations and payment applications

However there may be variations within the process of compiling and handling of expenditure declarations and payment applications.

8.2.12 Audit Authority

Financial Control Department of the Ministry of Finance shall carry out the role of the Audit Authority. Audit Authority is an independent audit unit, which does not take part in any management processes or management tasks: it audits different levels of management and control within the management and financial cascade of structural assistance in accordance with its annual work plan. In order to preserve the independence and objectivity of auditors, they do not participate in procedures related to accounting or control, they do not make transfers and are not connected to any other activities they analyse or assess (audit).

The planning, audit and reporting processes of the Audit Authority have been arranged to be independent of the Managing Authority and of the Certifying Authority.

Different from the Managing Authority and Certifying Authority the functions of the Audit Authority are centralised to one unit within the Ministry of Finance. Audit Authority can consider the audits performed by the 1st level Intermediate Body or 2nd level Intermediate Body as the audit of management and control system and project audit, when those audits are performed in accordance with the audit related legislation. Mentioned audits can be performed in cooperation with the Audit Authority and they are presented in the audit annual work plan (showing the specific performers of audit). The Audit Authority can outsource the audit activities when needed but the obligation to perform audits and the responsibility of audits as settled in the general regulation lies on Audit Authority.

The obligations of the Audit Authority are as follows:

- ensuring that compliance audits are carried out;
- ensuring that audits of management and control systems are carried out;
- ensuring that audits of operations are conducted on the basis of a relevant sample;
- submitting the audit strategy for structural assistance, the description of the method to be used for the selection of the audit sample and the annual audit work plan for structural assistance to the European Commission;
- submitting the annual control report to the European Commission;
- submitting an opinion to the European Commission on whether the management and control systems provide reasonable assurance that the expenditures declared to the European Commission are correct and the transactions leading to the expenditures are legal and regular;
- submitting an opinion to the European Commission on whether the description of management and control systems is in compliance with the articles 58-62 of the Council Regulation (EC) No 1083/2006.
- submitting the (partial) closure declaration to the European Commission.

Audit Authority ensures the regular, relevant and systematic audit, analysis and assessment of both projects and management and control systems. By forwarding information and data on observations made in the course of audit to audited bodies and the Managing Authority, Audit Authority contributes to the improvement of management and control systems as well as to the detection and correction of possible irregularities. Audit Authority reports to the European Commission on a regular basis thus ensuring the awareness of the Commission of national

arrangements for audit and the results of it.

8.2.13 General scheme on reporting irregularities

During the implementation of Operational Programme, the relevant Community rules governing the financing of activities herein, notably on the protection of the financial interest of the European Communities, applicable at the point of time when public support is granted, will be respected.

The general process of reporting irregularities proceeds as follows. 2nd level Intermediate Body submits information about irregularities conducted during granting or using assistance to the Ministry of Finance and 1st level Intermediate Body in two weeks after finding out an irregularity.

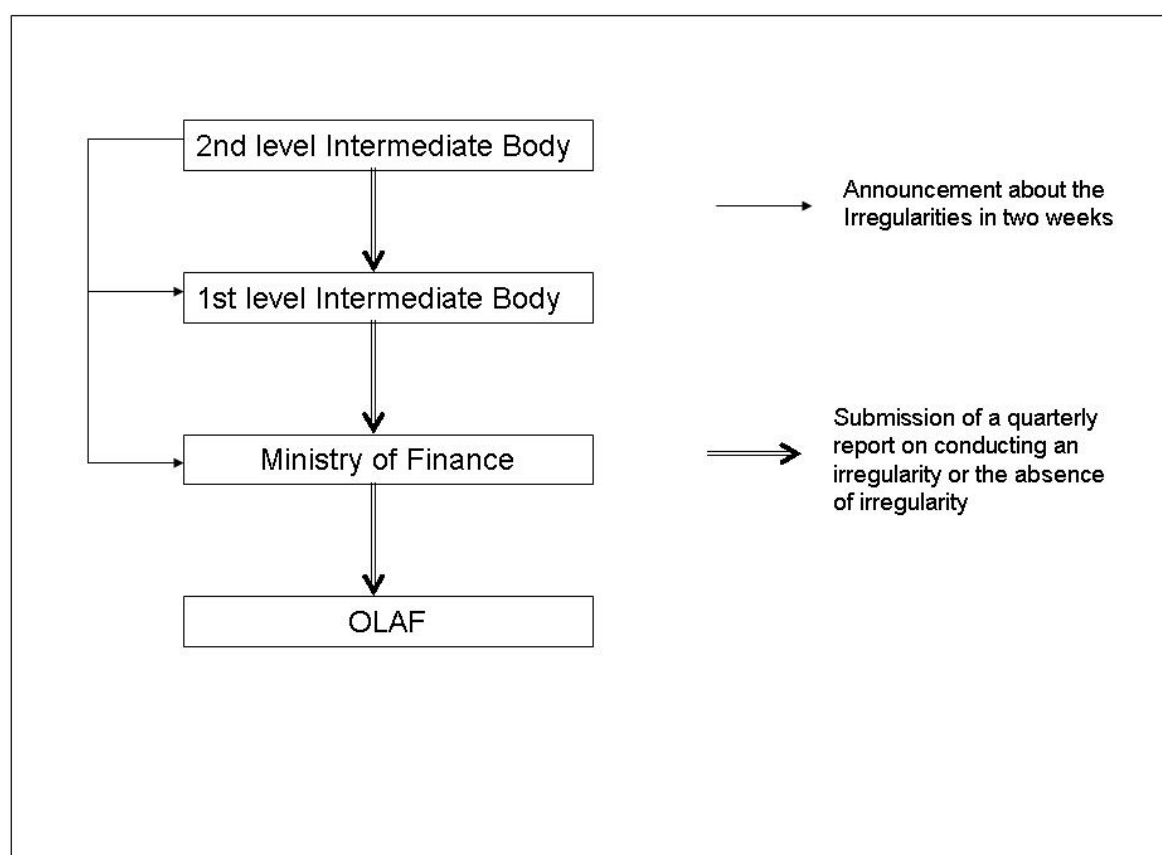


Figure 15. General scheme on reporting irregularities

2nd level Intermediate Bodies submit a report on irregularities conducted during granting or using assistance or absence of irregularities to 1st level Intermediate Bodies on quarterly basis. 1st level Intermediate Body controls and aggregates the reports received from 2nd level Intermediate Bodies and submits these to the Ministry of Finance. The Ministry of Finance performs controls over the information submitted and submits the reports to OLAF in the second month after the quarter.

8.2.14 Information and communication

General Principles

In addition to taking account the requirements of Council Regulation (EC) No 1083/2006 and the Commission Regulation 1828/2006, the planning of communication shall also be based on the communication practices that have been formed in 2004-2006. Communication takes place in accordance with the principles of transparency and partnership. Reporting requirements shall also be established – the Monitoring Committee of the Operational Programme shall be briefed on regular basis of the implementation of the communication plan. Communication measures shall be evaluated in accordance with Commission Regulation 1828/2006 and regular surveys shall be carried out to monitor awareness of structural funding. Communication measures detailed in communication plans may be amended or elaborated as a result of these evaluations and surveys or to adjust measures to changed circumstances.

Information about the possible sources of financing and application procedures, as well as information on the rules applied to the process of application and to the use of assistance shall be made available to the public and to potential applicants. The public shall be informed regularly on the progress of the implementation of structural assistance and those interested in the funds shall continue to have the opportunity to submit more specific enquiries to authorities, which deal with the implementation of structural assistance. Statistical information on the implementation of structural assistance as well as success stories are made public on regular bases. The lists of the recipients of assistance together with the information on the size of grants are made public. The applicants are informed about the fact that by accepting a grant, the recipient agrees with the publication of mentioned data in the general list of recipients.

Division of tasks

Communication of structural instruments is organized through a joint network of institutions, which are involved in the implementation of structural funding. The network consists of the Managing Authority (Ministry of Finance), Lead Ministries of all Operational Programmes, 1st level Intermediate Bodies and 2nd level Intermediate Bodies.

Every institutional level within the network is responsible for a different aspect of communication.

- Managing authority Foreign Financing Department in cooperation with the Communication Department of the Ministry of Finance) is responsible for tasks aimed at maintaining and increasing overall awareness of the structural instruments among the general public. Managing Authority also organises joint communication events, which concern more than one of the structural instruments (ESF, ERDF, CF). It is the leading institution of the communication network and thus coordinates the elaboration of communication plans of Operational Programmes by providing guidance and advice.
- Each OP shall have an individual communication plan. Lead ministries of Operational Programmes are responsible for the preparation and subsequent evaluation of the communication plans at later stages of implementation. In the phase of implementation Lead ministries perform tasks, which are aimed at creating awareness in the scope of a particular Operational Programme. They coordinate the activities of all the 1st and 2nd level Intermediate Bodies that implement measures within the Operational Programme for which they are in charge of.

- Intermediate bodies on both levels implement publicity measures, which are directly related to concrete priority axis' or measures and provide detailed information on funding opportunities as well as on rules and conditions which are applied to the implementation of operations.

Every institution has assigned at least one public-relations specialist to participate in the communication network, who is responsible for activities related to publicity in the respective authority. Ministry of Agriculture may also be involved on occasions where joint publicity efforts for structural instruments, rural development and fisheries' instruments are planned.

Indicative communication measures and budget

Members of the communication network are obliged to use all the appropriate communication measures available to achieve the goals stated in the communication plan. Possible media, which can be used, are websites, press releases, information brochures, information days, seminars, leaflets, and magazines, articles in newspapers, radio and television programs etc. Seminars and other events may be targeted at the wider public with the aim of publicizing both planned measures and achieved results or organized to inform specific target groups on particular measures. While many events are held in the capital, it is planned to hold regular information days also in all Estonian counties.

A more detailed list of communication measures shall be presented in the communication plan, as will be the means of involving social partners. It must be noted however that many social partners and umbrella organizations do actively participate in communication on their own initiative and with the support of Intermediate Bodies or the Managing Authority by mediating information to their members and organizing special events (often in cooperation with the administration and with their participation) to increase awareness of funding opportunities among specific interest groups.

Launch of the OP shall entail a variety of different activities – in addition to regular press releases, it is planned to launch a new website for structural instruments, hold information events (in the capital and in other regions), prepare printed materials introducing success stories from the previous period and introducing the period 2007-2013 etc. Most of these events are planned to take place in summer of 2007 (stretching into autumn). Adjustment of the symbols used in relation to visual identity of structural instruments with the requirements of Commission Regulation 1828/2006 is also in progress.

Every institution in the communication network shall have adequate financial resources to implement the communication measures stated in the communication plans. General or joint communication activities, as well as the salaries of the staff in charge of communication, can be financed from the priority axis for horizontal technical assistance as well as from the national resources. Communication activities, which are related to one OP only can be financed from the technical assistance foreseen for the particular OP or from national means.

8.3 Ensuring administrative capacity related to the implementation of the Operational Programme

Taking into account the future increase in the volume of structural assistance compared to the period of 2004-2006, the maintenance and enhancement of administrative capacity is one of the most important tools of successful implementation.

Development of administrative capacity in the area of structural assistance cannot be separated from the issues of administrative capacity of the state as a whole. Hence the

implementation of activities directed at raising the administrative capacity of the structural assistance administration (incl. the arrangement of training and the development of IT-solutions) shall take place in cooperation with all the relevant authorities incl. the State Chancellery.

The Ministry of Finance shall coordinate most of the trainings for the administration of structural assistance. Thereby the Ministry of Finance shall provide access to regular trainings to all authorities involved in the implementation of structural assistance and shall ensure that the administration is informed of changes that take place in the legislation or in the implementation systems. Another part of trainings shall continue to be specific to authorities and based on their particular needs. Technical administrative capacity of 2nd level Intermediate Bodies and 1st level Intermediate Bodies shall be raised by different guides and trainings. Besides the latter, the Managing Authority offers regular consultations and use of expertise (e.g. JASPERS) in different fields (e.g. eligibility).

In the context of Cohesion Fund it is planned to continue the ex-ante control function that was used during the previous programming period. That should ensure the proper implementation of state procurements, implementation of contracts and projects.

The questions of administrative capacity in the implementation of the Operational Programme for Development of Living Environment are related to the following issues:

- the redistribution of functions between authorities involved in the implementation of structural assistance compared to the period of 2004-2006;
- the growth in the volume of structural assistance as the amounts increase two to three times depending on the field;
- the enhancement of the capacity of applicants to prepare and implement projects.

During the period of 2004-2006 the Single Programming Document and Cohesion Fund projects were implemented separately. In 2007-2013 part of the activities financed from both ERDF and Cohesion Fund are integrated into the Operational Programme of Development for Living Environment. To accommodate this change the arrangements for the implementation of these activities partly covered by the Operational Programme shall be reorganized. The ex-ante control of Cohesion Funds applications and the monitoring of all projects shall be decentralised from the Ministry of Finance to 1st level Intermediate Bodies or 2nd level Intermediate Bodies. A Monitoring Committee shall be established for the Operational Programme and the functioning of its secretariat will be ensured.

In order to manage the increasing volume of funds, 1st level Intermediate Bodies and 2nd level Intermediate Bodies shall recruit more staff to advise applicants, perform ex-ante control of projects, conduct verifications and monitor the Programme. To ensure the qualifications of the staff, newly recruited employees shall receive preliminary training; training of the entire staff shall be done on regular basis.

The experience of 2004-2006 has demonstrated that one of the main hindrances in the implementation of projects is often the limited capacity of recipients (especially local authorities and municipal companies) to manage and finance projects. The main problem lies within the capability to prepare procurements and manage projects.

There have been problems in implementing Cohesion Fund projects where in addition to the risk of decommitment due to incapacity, delays in the procurement process lead to situations where the expenses of projects escalate due to the continuous price inflation in construction. This leads to the situation where a local authority must find additional money for co-financing

of the project but depending on the situation, this could be a real problem for some municipality.

In order to improve the administrative capacity of the recipients it is planned to implement the following measures:

- changing the process of planning and processing of assistance more flexible;
- more efficient assessment of the co-financing abilities of the recipients in the planning of assistance and granting assistance;
- planning additional assistance to the recipients for buying a qualified consultation service in project management and for training the recipients in conducting procurements;
- preparing guides, incl. “Development activity of a local authority based on the development plan”;
- reducing the co-financing rate to 15%;
- enhancing involvement of a private sector.

8.4 International cooperation in the framework of implementing the Operational Programme

Co-operation with other EU member states and neighbouring countries will be supported mainly by the European territorial co-operation objective (for EU internal borders) as well as by the cross-border component of the European Neighbourhood and Partnership Instrument (ENPI) (for EU external borders). The European territorial co-operation objective is aimed at strengthening cross-border co-operation (bilateral co-operation between border regions), transnational co-operation (multilateral co-operation on matters of strategic importance between member states having geographical proximity) and interregional co-operation (EU-wide networking of regions for exchange of knowledge and experience). The European territorial co-operation programmes will be financed by the European Regional Development Fund.

The European territorial co-operation programmes for 2007-2013 will supplement the Operational Programmes under the convergence objective providing additional opportunities for achieving the objectives of the latter through enhanced co-operation with neighbouring regions and other EU member states.

The Operational Programme for the Development of Living Environment is having linkages with the following programmes under the European territorial co-operation objective:

- Central Baltic cross-border co-operation programme 2007-2013. The programme area covers parts of Sweden (NUTS III regions of Gävleborg, Uppsala, Stockholm, Södermanland, Östergötland, Gotland), Finland (Varsinais-Suomi, Uusimaa, Itä-Uusimaa, Kymenlaakso, Åland), Estonia (Kirde-Eesti, Kesk-Eesti, Põhja-Eesti, Lääne-Eesti) and Latvia (Kurzeme, Rīga, Pierīga). The Operational Programme for the Development of Living Environment will have linkages with this programme within the following sectors – increasing environmental awareness and expertise; co-operation in management of waste, water and risk prevention; co-operation in energy efficiency, clean technologies and renewable energy sources; increased readiness for maritime risks; reducing environmental loads; development of joint cross-border tourism; development of cross-border ICT networks; building an innovative

environment in regions for enterprises; involvement of universities and other educational institutions into local development of islands; co-operation in urban specific concerns; cooperation in innovative methods in health and care sectors.

- Estonia and Latvia cross-border co-operation programme 2007-2013. The programme area covers parts of Estonia (NUTS III regions of Lõuna-Eesti, Lääne-Eesti) and Latvia (Kurzeme, Pierīga, Rīga, Vidzeme). The Operational Programme for the Development of Living Environment will have linkages with this programme within the following sectors – development of ICT connections; enhancing joint services in energy and water supply, health care and rescue work; joint solutions to similar environmental problems; joint management of protected areas and nature reserves; increasing the attractiveness of the regions for visitors; enhancing the link between education and enterprises and development of cross-border educational infrastructure; developing the accessibility and quality of local public services and recreational infrastructure in rural areas.
- Estonia-Latvia-Russia cross-border co-operation programme within ENPI 2007-2013. The programme area covers parts of Estonia (NUTS III regions of Kirde-Eesti, Lõuna-Eesti, Kesk-Eesti), Latvia (Latgale, Vidzeme) and Russia (Leningrad oblast, Pskov oblast, St. Petersburg city). The Operational Programme for the Development of Living Environment will have linkages with this programme within the following sectors – development of ICT connections; development of joint tourism infrastructure and products; joint actions aimed at protection of environment and natural resources; improvement of energy efficiency; development of social care and health services.
- Baltic Sea Region transnational co-operation programme 2007-2013. The programme area covers whole Estonia, Latvia, Lithuania, Poland, Finland, Sweden, Denmark and the northern NUTS II regions in Germany. In addition all regions of Belarus and Norway, as well as the north-western part of Russia will participate as partner countries. The Operational Programme for the Development of Living Environment will have linkages with this programme within the following sectors – stimulation of transnational interactions between enterprises, R&D institutions and public authorities; development of the use of biofuels and improvement of public transportation systems in urban areas; creation of institutional arrangements for integrated policy on transport, environment and health; strategies and solutions to improve water management and treatment; actions to prevent transboundary pollution and to promote environmental management and standards; protection of valuable marine resources, sensitivity mapping of the Baltic Sea marine resources; cooperation to minimise environmental risks and to enhance preparedness on the sea in case of accidents or spills or to promote rescue assistance in case of natural disasters; joint strategies for energy saving and renewable energy management; joint strategies for social, economic and environmental rehabilitation of industrially degraded areas; development of joint tourism products.
- Interregional co-operation programmes 2007-2013 (Interreg IVC, Interact II, Espon II, Urbact II). The programme areas cover all 27 EU member states. The Operational Programme for the Development of Living Environment will have linkages with this programme within the following sectors – improving the capacity of regions for strengthening research and innovation; enhancing the use of new environmentally friendly technologies; elaboration of strategies for establishing better ITC connections between regions; cooperation on local employment development initiatives; developing plans and measures to prevent and cope with natural and technological

risks; development of sustainable waste management activities and the movement to a recycling society; development of activities linked to biodiversity and the preservation of natural heritage; stimulating energy efficiency and the development of renewable energies; promoting sustainable transport; development of sustainable tourism.

For the purposes of co-ordination of the implementation of all above-mentioned European territorial co-operation programmes, in addition to the mechanisms described in chapter 7.1 a special inter-ministerial working group has been set-up by Ministry of the Interior.

Besides co-operation within the framework of the European territorial co-operation programmes, , the Managing Authority, 1st level Intermediate Bodies and/or 2nd level Intermediate Bodies, when there is a mutual interest or need, work in cooperation with other member states of the European Union, especially with the regions of Baltic Sea and other Baltic countries in implementing the Operational Programme. Cooperation means mainly sharing information about the activities to be implemented and the management of implementation. On occasions where it is appropriate activities shall be coordinated or joint activities shall be implemented within the framework of the priority axis of this Operational Programme.

It is attempted to use and develop cooperation mechanisms that are already in use and working, especially between the Baltic countries and the regions of Baltic Sea. Additional mechanisms aiming at the cooperation in the field of structural assistance will be created if needed.

When it is suitable and helps to improve the implementation of the priority axis of the current Operational Programme, cooperation with other regions of Europe shall be done in the framework of European Commission initiative Regions for Economic Change by joining initiated networks.⁴

By joining the networks, Estonia declares to take the following obligations:

1. to associate in the Operational Programme and give structural assistance to innovative activities that derive from the work of the networks;
2. to enable the representatives of the networks to participate in the meetings of the Monitoring Committee (as observers) for allowing them to give an overview of the activities of the networks to the members of the Monitoring Committee;
3. to foresee at least once a year in the agenda of Monitoring Committee meeting a special point for getting an overview of the activities of the networks and for discussing the suggestions deriving from their work for supporting the new innovative ideas within the framework of the Operational Programme;
4. to give an overview (in the content of the monitoring annual report) about the regional activities carried out within the initiative Regions for Economic Change.

⁴ More information on Regions for Economic Change:

http://ec.europa.eu/regional_policy/cooperation/interregional/ecochange/index_en.cfm

9 SUMMARY OF EX-ANTE EVALUATION OF THE OPERATIONAL PROGRAMME

The Ministry of Finance and Tallinn University of Technology concluded a contract for carrying out an ex-ante evaluation of the National Strategic Reference Framework for the use of structural instruments 2007–2013 (NSRF) and sectoral operational programmes (OP) on 11 May 2006. The Expert Group consisted of ten members and was led by Professor Enn Listra, Dean of the Faculty of Economics and Business Administration, Tallinn University of Technology.

The draft Living Environment Development OP as of 7 July 2006 (*preliminary Evaluated Document*) was subject to preliminary ex-ante evaluation. The draft Living Environment Development OP as of 23 November 26 (*amended Evaluated Document*) was analysed in the course of additional ex-ante evaluation. The evaluations were carried out on the basis of the Indicative Guidelines for Ex-ante Evaluation by the European Commission and the *basic evaluation questions* provided by the Ministry of Finance.

The ex-ante evaluation work consisted of five stages:

1. Consistency evaluation – consistency of the *Evaluated Document* with the requirements specified in other regional, national and Community policies and in the Guidelines for Ex-ante Evaluation was evaluated. In total, consistency with ten documents was evaluated.

The Expert Group concluded that neither the *preliminary* nor the *amended Evaluated Document* is inconsistent with any of the documents compared to. The latter often have a broader approach and are more detailed but the Expert Group found that the decision of the drafters of the strategy not to duplicate all criteria and target levels of indicators in NSRFs and OPs is justified.

2. Interviews with the drafters of the OP – the aim was to understand how the drafters have planned and carried out the process. It was considered important to ascertain whether the drafters have a similar vision of the *Evaluated Document* as a strategy, whether the activities were carried out in a systematic manner and whether all drafters themselves, too, are satisfied with the end result. All nine drafting institutions, i.e. drafters of the *Evaluated Document*, were interviewed on the basis of a prepared questionnaire.

The Expert Group concluded that the drafters were in general satisfied with the result and had reached compromises in spite of some internal disagreements. Problems were acknowledged in the *preliminary Evaluated Document* in terms of a) indicators and b) the clarity of the relations between the specified needs-objectives-priorities for bystanders. These problems have been tackled in amending the document but some indicators still missing in places (see "Integrated and balanced development of regions", Modernisation of the study environment of vocational schools) or are based on estimations (see "Development of infrastructures and support systems for sustainable use of the environment"); it is possible that further amendments have been made in the final version of the *Evaluated Document*. In amending the document, the drafters made considerable changes in the document in the area of environmental protection but also energy and health, which, according to the opinion of ex-ante evaluators, improved the quality of the *Evaluated Document*. The structure of the document changed in the course of amending as new topics were added to the *preliminary Evaluated Document*, whereby also new

ministries were added to the group of drafters. Despite that, the drafters have succeeded in consistently adhering to a common structure (although the titles of topics of the same content differ in places), but the substantive approach to topics varies depending on the ministry concerned. This is acknowledged also by the drafters themselves.

3. Interviews with partners – the aim was to ascertain the actual roles of partners in the process of preparing the strategy. Answers were sought to the questions of to what extent are partners aware of the content of the *Evaluated Document*; what has been their contribution to it; how satisfied are partners with the end result; whether and to what extent does their vision coincide with the approach of the drafters; and how do they judge their degree of involvement.

The Expert Group concluded that although the list of involved partners included 15 partners, most of them have not been involved in substantive drafting. The main reason behind that has been the limited capacity of partners to participate substantively in the drafting process due, in particular, to their limited staff and being burdened with other duties in partner organisations. The drafters did not hinder any interested parties from participating in the process.

Although several partners admitted their (and other partners') small role in preparing the strategy, most of them held that such strategy is necessary for the country.

4. Assessment of the Expert Group – was formulated as an outcome of, on the one hand, the input gathered in the course of work (consistency evaluation, interviews with drafters and partners) and, on the other hand, discussions over the *Evaluated Document* between the experts.

The assessment was expressed as a) answers to the *basic evaluation questions* and recommendations; b) detailed comments on the *preliminary Evaluated Document* (79 comments in total) and the *amended Evaluated Document* (97 comments in total; the volume of the document increased significantly in the course of amendment). The assessment can be summarised as follows:

- a) **Nature of the document:** the *Evaluated Document* is not an independent strategy but a follow-up to sectoral development plans. The Expert Group is of the opinion that the approach chosen by the drafters has more pluses than the possible alternatives do;
- b) **Whole picture:** the *Evaluated Document* does not give an overview of the whole picture in the area (i.e. what other budgetary/programme funds have been allocated in the past and are projected to be allocated in 2007–2013 for tackling problems in these areas). Therefore it is impossible to assess whether the volumes (the input planned in the *Evaluated Document*) are consistent with the needs and whether the projected result (target level of indicators) is realistic;
- c) **Specification and delineation:** The analysis of the current situation deals with topical issues/problems in each area covered by the document. It is confusing that "default" limits are applied (e.g. the chapters concerning education infrastructure deal with vocational education, schools for students with special educational needs and youth work but not with general education) without motivating the choice (e.g. by specifying that these areas of education are not eligible);
- d) **External factors:** The approach to the analysis of external factors (i.e. opportunities and risks) would need to be improved;

- e) **Style of analysis:** The analysis should be more analytical by its style (presently being descriptive rather than analytical);
- f) **Prioritisation:** Prioritisation of needs (incl. by unambiguously showing the criteria for making the decision) is not transparent or has not been done at all (see “Health and welfare infrastructure”). It is therefore not possible to assess whether the most acute problems are given more attention also in the priority axes and the financing plan;
- g) **Analysis summary:** The analysis is, as a rule, summarised for each topic in the form of key problems (except for “Health and welfare infrastructure”);
- h) **SWOT-analysis:** the methodology of SWOT-analysis was not used as analysis summary or it was abandoned in the *amended Evaluated Document*;
- i) **Priorities:** Priorities are expressed through priority axes and linked with the issues addressed in the analysis part. The priorities themselves are important in the light of other documents (incl. the Lisbon Strategy and the Estonian Action Plan for Growth and Jobs, Community Strategic Guidelines, Sustainable Estonia 21). The priorities are formulated in a very general way, i.e. in essence they do not represent priorities (i.e. operations that are more important compared to other alternatives) but rather the general name of the area;
- j) **Alternative priorities:** Not addressed;
- k) **Objectives:** Objectives are presented under the priority axes and have been made measurable through a system of indicators and further specified through operations to be supported and through beneficiaries;
- l) **Indicators:** Indicators related to the objectives have mostly been presented (except for “Integral and balanced development of regions”, Modernisation of vocational school infrastructure). The presentation of indicators has been improved in the *amended Evaluated Document* but the approach is not systematic and transparent enough to be used as a management and decision-making tool. In addition, there is no analysis (nor could one be made by the evaluators themselves as bystanders because the **whole picture** is missing) as to whether the target levels of indicators are achievable in practice considering the level of financing and the fact that the target levels of several indicators will be aimed at simultaneously. The target levels of indicators are, in part, not presented as of 2013. At the same time, seven years is such a long period that it would be reasonable to present the target levels of indicators also for the interim years;
- m) **Horizontal issues:** The connections of priority axes with horizontal values have been described. The description remains at an intuitive-declarative level in places and therefore does not add value to the *Evaluated Document*. It is not clear how the objectives and horizontal values relate to each other (incl. the possible coordination and conflict relations and their management);
- n) **Major projects:** Major projects have been presented where the volume of the measure is sufficient for their implementation;
- o) **Linkages with other operational programmes and strategies:** It is evident from the approach that connections with other operational programmes and strategic documents have been analysed. The analysis, however, is mostly confined to merely naming or describing the documents (or parts of documents) without describing how

the priority axis concerned will contribute to achieving the objectives established in the document compared to. Joint operations falling within the contact area of two priority axes are insufficiently specified;

- p) **Financing plan:** The financing plan is presented in conformity with the EC requirements. This format does not allow an assessment of whether the ratio of inputs (incl. financing) and outputs (incl. change of indicators) is justified;
- q) **Implementation system:** The implementation procedure of the *Evaluated Document* is specified in the chapter concerning the management system. In essence, the management system does not differ from that used for NDP 2004–2006. As the latter has been assessed as positive in the relevant studies, the selected approach can be approved.

- 5. Presentation of results – the need for the ex-ante evaluation to be an interactive and iterative process was taken into account in daily work.

The process was supported in a web-based e-learning environment Moodle. Five presentations (to the European Commission, IMF, representatives of ministries and the public) were carried out in the course of work. In addition, the representatives of the Ministry of Finance and the project manager for the ex-ante evaluation regularly communicated in the course of the process.

The ex-ante evaluation led the Expert Group to the opinion that the following generalised remarks can be made concerning the *Evaluated Document* on the basis of the ex-ante evaluation criteria:

- it is sufficiently relevant, i.e. the strategy is relevant to the needs and problems identified
- its **effectiveness**, i.e. whether the objectives of the programme are likely to be achieved, still needs to be better specified
- it has sufficient utility, i.e. the programme is likely to have an impact on solving wider social, environmental and economic needs.

Concerning the more specific criteria, the following generalised remarks can be made about the *Evaluated Document*:

- **experience from earlier periods**, i.e. to what extent the experience from the NDP period 2004–2006 has been taken into account in drafting the strategy: earlier experience has been taken into account (use of the conclusions from studies conducted) to a small extent (note: it has to be taken into account that it is too early yet to expect a complete overview of the (interim) results for the period 2004–2006)
- **internal coherence of the strategy**, i.e. connections between the elements of the strategy, are in general on a high level
- **external coherence of the strategy**, i.e. the coherence of the strategy with financial allocations and with other regional, national and Community policies (incl. programming and methodological documents) is declarative, not substantive in its way of presentation (it has to be noted though that most of the programming and methodological documents compared to are themselves, too very declarative and general)
- **quantified values of the targets**, i.e. those that would allow the numeric indicators of the results of the strategy to be assessed, are not assessable from the point of view of their achievability
- **the quality of the implementation system**, i.e. how it can influence the delivery of the

objectives of the strategy, is excellent

- **added value for the Community as a whole**, i.e. to what extent Community priorities and the need to maximise added value for the Community has been taken into account, has not been addressed in terms of an analysis.

The overall opinion of the Expert Group on the *Evaluated Document* is positive. The above remarks (incl. the attention drawn to potential problem areas) are driven first of all by a wish to contribute to better management in implementing the strategy and to increase the efficiency of planning and management processes in the public sector in future.

The summary of the ex-ante evaluation of the *Evaluated Document* presented in this sub-chapter is based on the comments and recommendations of ex-ante evaluators made in the course of reviewing the *Evaluated Document* and answering the *basic evaluation questions*. The comments and recommendations and the answers of ministries are presented as a consolidated table in the annexes of the ex-ante evaluation report – the table presents how the evaluation proposals were taken into account..

10 SUMMARY OF STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE OPERATIONAL PROGRAMME

The aim of this chapter is to give an overview of the strategic environmental assessment conducted. Conducting of strategic environmental assessment is an obligation under EU Directive 2001/42/EC and the Environmental Impact Assessment and Environmental Management Systems Act. Strategic environmental assessment (SEA) was carried out simultaneously with the drafting of the Operational Programme. The assessors consulted with the drafters of the Operational Programme in the different stages of the work and presented their amendment proposals to the Operational Programme. The purpose of the SEA was to contribute to drafting balanced operational programmes consistent with the EU and Estonian environmental policy. The aim of the SEA was to:

- integrate environmental considerations into sectoral operational programmes;
- bring sectoral operational programmes into harmony with EU environmental policy;
- map the environmental impacts of the strategic parts of sectoral operational programmes and deliver recommendations for minimising the environmental impacts;
- assess the priority axes of the operational programmes from the environmental point of view.

A general overview of the environment in Estonia is presented in Chapter 2.5 of the National Strategic Reference Framework for the use of structural instruments 2007–2013. A comprehensive description of the environment to be impacted by the Operational Programme is presented in Chapter 3.1 of the Living Environment Development Operational Programme and a description of the environment likely to be impacted, along with pressures and trends, is presented in Chapter 8 of the SEA report.

Current state of the environment and pressures in the area to be impacted

Estonia is an "averagely" clean country but the state of the environment in Northeast Estonia, Tallinn and areas of intensive agricultural production does not meet the requirements (ambient air, status of water bodies and groundwater, spoilt landscapes, past contamination) – yet a big part of the population lives here. Achievement of a good status of watercourses is hindered by dams blocking the migration of fish.

A significant part of the Estonian territory is polluted or covered with waste and mine tailings. The frequency and probability of environmental accidents is high. Maintenance of valuable and seminatural landscapes requires constant care due to a decline in traditional land use. Possibilities for recreational use of landscapes are declining: part of recreational landscapes in the surroundings of cities have been built up and littered. Restriction of access to landscapes by private owners continues. Public interests are inadequately safeguarded in spatial planning and construction, which deteriorates the quality of the built environment. The population of Estonia is aware of environmental problems but is not ready to behave in an environmentally sound manner.

The priority axes "Development of water and waste management infrastructure", "Development of infrastructures and support systems for sustainable use of the environment" and "Development of energy sector" make up nearly a half of the volume of the Operational Programme for the Development of the Living Environment. The backlog of the environmental infrastructure and past contamination from the Soviet period have caused environmental pollution, which is particularly extensive in Northeast Estonia.

Unless the Operational Programme is implemented, the load to the environment (sewage

systems, waste management, past contamination, dams on rivers) would increase due to the inadequacy of the relevant facilities.

The second half of the Operational Programme comprises the priority axes of regional development and education, health and welfare infrastructure. These operations will mitigate, in particular, pressures from uncontrolled real estate development and transport in the surroundings of cities.

Environmental aspects and problems

Important environmental aspects are as follows:

- the use of land, water bodies and the atmosphere;
- air and water emissions, noise, vibration and light;
- the use of oil shale and peat resources;
- the use of agricultural land for the production of biofuels;
- waste disposal.

The Operational Programme is consistent with strategic planning documents. The priorities of the Operational Programme were selected pursuant to the EU and Estonian environmental legislation and the EU Accession Treaty.

Potential environmental impact of implementation of the Operational Programme

The content and main objectives of the Operational Programme cover a big part of Estonian environmental problems.

The Operational Programme will have a significant positive impact on human health and social needs, biological diversity, biotic populations, soil, status of water bodies. The impact on human property, plants, animals, water and air quality, climate change, cultural heritage, landscapes is expected to be positive or neutral. The impact on waste generation will be neutral or positive.

Implementation of the Operational Programme will not cause any significant additional environmental problems. The opinion of health protection agencies on the possibilities of using the Cambrian-Vendian water complex, which has an elevated radionuclide content, as a source of drinking water supply will be necessary in planning the sources for water supply systems in the surroundings of Tallinn and elsewhere in North Estonia.

Solutions to a number of problems requiring urgent solution but having been inadequately addressed during the previous programming period, such as securing of environmental safety (incl. localisation of past contamination), prevention of environmental accidents, securing of administrative capacity and proper environmental management, have been realised in the Operational Programme.

The extent to which the positive impact of the Operational Programme will be realised in the state of the environment will largely depend on developments in the energy sector, transport and agriculture. Positive environmental impact is predominantly expected at the level of the Operational Programme, while improved interaction with other operational programmes and

other developments should be sought as an added value.

Measures recommended to prevent, mitigate and compensate negative environmental impact and increase positive environmental impact

Significant negative impact of environmental facilities on air, water, protected areas, protected natural features and species in implementing the projects can be prevented, mitigated and compensated by means of timely planning of actions and environmental impact assessment.

The rules of environmentally sound construction and use need to be pursued in all projects, which has to be shown in works projects, environmental approvals or, in case negative environmental impact is suspected, in environmental impact assessment reports.

The use of various waste as fuels or for the production of fuels has good prospects but it may bring about the risk of unallowable increase in emissions of dangerous substances. The possibility of using old tyres as a fuel is certainly worth investigating.

In order to ensure the effectiveness and synergy of environmental investments, the following objectives and measures are recommended to be aimed at in implementing the Operational Programme:

- development of administration, environmental liability and environmental management in consistent cooperation with other operational programmes;
- balanced development of environmental indicators, supervision and monitoring;
- the possibility of supporting the development of transboundary cooperation in the frames of the operations of the Operational Programme (Baltic Sea, Lake Peipsi, Narva River).

It is recommended to specify the system of indicators intended for monitoring the significant environmental impact resulting from the implementation of the Operational Programme

Possible actions to reinforce the positive impact of water and waste management infrastructure development and integral and balanced development of regions:

- to start shifting to self-sufficiency in water management: to increase the participation of water consumers, water companies and local authorities in the financing of projects, differentiating the aid according to the economic indicators of the region concerned.
- to obligate all inhabitants and companies to join a waste handling system;
- to apply the environmental liability principle and polluter pays principle to real estate developers;

Possible actions to reinforce the positive impact of energy development:

- to adopt a decision to abandon increasing the use of oil shale and reduce the use in absolute figures;
- to investigate the possibilities of expanding the use of heat pumps (groundwater, soil);
- production and use of fuel from waste (municipal waste, landfill gas, old tyres, waste paper and wood waste);

- to ascertain the actual potential of biofuels (logging waste, energy forest and hay, rape oil, manure, etc.) as a resource of renewable energy, taking into account the circulation of substances and energy flows in forest lands and agricultural lands.

Consideration of recommendations from SEA consultations and the interim report

The analytical part of the Living Environment Development Operational Programme has been substantially amended; chapters on environmental management and environmental supervision have been added as recommended by SEA experts.

The fact that the priority “Development of energy sector” has been integrated into one operational programme and its scope has been extended will certainly have a positive impact. Also the integration of education, health and welfare infrastructure into the same operational programme makes it possible to direct the comprehensive renovation of the facilities with due consideration of environmental requirements.

The programme for regional development emphasizes the importance of spatial plans for areas intended for public use. It is positive that the volume of public transport development has been enhanced.

An environmental education sub-programme, which will be supported by the priority axis of environmental education infrastructure under the Living Environment Development Operational Programme, is being drafted in cooperation between the Ministry of the Environment and Ministry of Education and Research. The volume of the axis of environmental education infrastructure has been increased.

The possibilities of developing environmental management at the national level were discussed with the drafters of the Operational Programme and the respective sub-programme will be launched in the frames of the priority “Enhanced administrative capacity of human resource”. Development of the same sphere will be supported by extending the support to be provided to environmental monitoring to cover also environmental supervision.

Environmental objectives and indicators have been further specified, allowing the positive impact of the Living Environment Development Operational Programme to be more clearly identified. The use of the earlier overly ambitious objectives and indicators would have been misleading. The analysis carried out by SEA experts and the drafters of the Operational Programme helps all parties to understand that the resources of the Living Environment Development Operational Programme alone are not sufficient for achieving a good state of the environment in the entire country. It takes the efforts of the entire society to achieve this objective.

Adding of the issue of transboundary cooperation to the Operational Programme did not find support. This area will be developed in the frames of other programmes.

A full overview of the comments and recommendations made in the course of the SEA and of the answers of the drafters is presented in Annex 6 to the SEA report.

Comparison of alternatives

The latest draft of the Living Environment Development Operational Programme (07 December 2006) is preferred among the alternatives considered. The environmental objectives

established in the Living Environment Development Operational Programme are likely to be largely achieved in cooperation between the three operational programmes.

Monitoring

The existing supervision system ensures the possibility to monitor the conformity of the operations planned under the Operational Programme to environmental requirements. Where necessary, additional environmental surveys, spatial planning exercises and environmental impact assessments need to be carried out. The environmental indicators selected for the Operational Programme allow the implementation of the environmental objectives to be assessed.

Publication

The SEA process was carried out pursuant to the applicable publication procedure (*Environmental Impact Assessment and Environmental Management Systems Act* § 37 and 41). An overview of the publication procedure is presented in Chapter 13 of the SEA report.

The SEA report along with other materials concerning the SEA process are available on the home page of the Ministry of Finance: www.fin.ee/sf2007.

ANNEX 1: LIST OF SOCIO-ECONOMIC PARTNER ORGANISATIONS INVOLVED

	Estonian Council of Environmental NGOs
	Estonian Nature Conservation Society
	Estonian Waste Management Association
	Estonian Water Association
	Association of Estonian Cities
	Association of Municipalities of Estonia
	Estonian Village Movement Kodukant
	Estonian Association of Small Harbours
	School Network Bureau, Ministry of Research and Education
	Council of Rectors
	Estonian Vocational Education Promotion Society
	Estonian Employers' Confederation
	Council of Rectors of Applied Higher Education Institutions
	Estonian Academy of Sciences
	Estonian Chamber of Commerce and Industry

ANNEX 2: AN INDICATIVE LIST OF INTERMEDIATE BODIES BY PRIORITY AXIS*

No and name of priority axis	1st level Intermediate Bodies	2nd level Intermediate Bodies
Development of water and waste management infrastructure	Ministry of Environment	Environmental Investment Centre
Development of infrastructures and support systems for sustainable use of environment	Ministry of Environment, Ministry of Interior	Environmental Investment Centre
Development of energy sector	Ministry of Environment, Ministry of Economic Affairs and Communications	Environmental Investment Centre, Credit and Export Guarantee Fund Kredex
Integral and balanced development of regions	Ministry of Interior	Enterprise Estonia
Development of Education Infrastructure	Ministry of Education and Research	Foundation for Lifelong Learning Development Innove
Development of healthcare and welfare infrastructure	Ministry of Social Affairs	Ministry of Social Affairs
Horizontal technical assistance	Ministry of Finance	Ministry of Finance
Technical assistance	Ministry of Finance	Ministry of Finance

* As established by the Decree of the Government on the 19th of April 2007 No 111, can be changed during OP implementation upon a respective decision by the Government

ANNEX 3: IMPLEMENTATION SCHEME ALLOWED FOR HORIZONTAL TECHNICAL ASSISTANCE

