



Overview of problems with financing of EU environmental *acquis communautaire* in Estonia

System of environmental protection investments

In Estonia the environmental investments are financed from variety of sources, both national and foreign. National sources for covering the environmental expenditures are state budget, budgets of local municipalities, enterprises and Environmental Investment Centre. Out of these sources the majority of environmental expenditures are done by enterprises (see Table 1).¹ It is positive that the volume of environmental expenditures keeps growing. If in 1992 the total amount of environmental expenditures (without foreign assistance and loans) in Estonia was 11.6 million Euros than in year 2000 it was already 89.4 million Euros.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	Total
State budget*	0.3	0.9	1.2	3.5	5.7	4.9	5.8	6.7	8.0	37.0
Municipalities*	0.1	2.6	1.5	1.9	4.5	5.1	7.4	7.5	14.8	45.4
Environmental Investment Centre**	0.4	1.1	1.2	1.7	5.1	10.2	11.2	10.2	14.1	55.2
Enterprises	10.8	16.0	19.3	25.1	51.9	54.1	54.0	47.6	52.5	331.3
Foreign bilateral grant assistance	11.3	4.3	21.1	11.0	14.1	34.9	24.7	20.8	15.1	157.3
EU grant assistance	4.6	0.5	5.8	5.4	5.2	3.3	6.5	14.1	24.6***	70.0
Foreign loans	0	0	22.7	12.3	0	0	0	14.0	12.0	61.0
Total	27.5	25.4	72.8	60.9	86.5	112.5	109.6	120.9	141.1	757.2

Table 1. Environmental expenditures in Estonia in 1992-2000 (million Euros)

* Only investments (such as wastewater treatment and sewage projects), does not include "soft" expenditures such as maintenance costs or monitoring

** Called National Environmental Fund up to 2000

*** ISPA

Source: Statistical Office of Estonia, State Budgets

¹ It is important to note that due to very liberal economic policies vast majority of enterprises in Estonia were privatised already by mid-1990s (with exception of electricity production and major ports which still are in state's possession).

Environmental Investment Centre (EIC) is state environmental fund whose revenues come from and resource use charges and environmental taxes. Its main aim is to co-finance major environmental projects, it is giving both grants and loans to municipalities and companies. National environmental fund was established already in 1983 under name of Fund for Nature Protection and Rational Use of Natural Resources. The Centre was re-organised in year 2000 and it is also functioning as national implementation agency for ISPA environmental projects. If in year 1992 the Environmental Investment Centre (than called Environmental Fund) financed projects with 0.5 million Euros than it is estimated that in 2003 the volume of investments will grow to 20 million Euros through EIC.

Major investments by the Government are planned long ahead in framework of the Public Investment Programme (PIP). Clear rules for the PIP were lay down in 2000 although the planning system for major public investments started in 1995. PIP is not a separate fund but rather a list of strategically important investment projects (with budget of more than 3 million Euros) which the state has decided to finance for coming years. For period of 2001-2004 the Public Investment Programme includes 82 investment projects worth of total 1.14 billion Euro (17.9 billion Estonian Kroons). Approximately half of all projects are environmental investment ones. Financing of those projects is coming from state budget, Environmental Investment Centre, municipalities and foreign loans.

In additional to national sources for environmental investments the foreign assistance has always played important role in Estonia. Since re-gaining its independence in 1991 Estonia has been very successful in attracting grant assistance, both from bilateral and EU sources. Compared to other sectors such as education, agriculture and enterprise the environment has been receiving biggest amount of bilateral grants in Estonia (almost 20% of total bilateral grant assistance). In early 1990s foreign grant assistance played vital role in environmental investments in Estonia (for example 48% of all environmental expenditures were covered by foreign sources in 1992) while by now it covers roughly 10% of Estonian environmental expenditures.

Most of the bilateral assistance to environmental projects in Estonia have been coming from Finland, followed by Denmark, Sweden and Switzerland. The amount of total environmental bilateral grant assistance in 1991-2000 is 157 million Euros. In addition the EU Phare has provided total 45 million Euros for environmental projects in Estonia (in 1991-2001). Starting from year 2000 ISPA has become biggest source of foreign grant assistance to environmental investments in Estonia. In addition to the foreign grants the Government of Estonia has taken or guaranteed 5 loans worth of total 61 million Euros from International Financial Institutions for environmental projects. There have been two loans by EBRD (totalling 37 million Euros) and one loan by each the Nordic Investment Bank (14 million Euros), EIB (12 million Euros) and the World Bank (2 million Euros).

As for environmental investments, in recent years the enterprises are investing biggest amounts of money into air and water protection while vast majority of environmental investments of municipalities are going for waste water treatment plants.

Needs for investment capital and predicted sources of financing

According to the estimations by the Estonian Ministry of Environment total around 1.7 billion Euros will be needed in Estonia in 2000-2013 for achieving full compliance with EU

environmental *acquis communautaire* (see Table 2). Out of this more than 0.9 billion Euros needs to be covered by Estonian public sector. Estimated investments of environmental infrastructure, which should be carried out by public sector, are planned to be covered from local sources (own resources of the enterprises and budgets of local municipalities) and national sources (state budget and Environmental Investment Centre), as well as with foreign bilateral grants and loans. State budget expenditures are to be covered from budget lines of Public Investment Programme and Environmental Investment Centre. It is foreseen that many municipal projects will be implemented using public-private partnership.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	total
state	9.37	17.68	18.64	22.72	23.16	24.38	24.51	25.40	25.75	25.56	26.63	4.47	4.47	5.10	257.84
local	7.26	8.61	9.63	10.26	12.17	12.49	13.45	14.41	16.32	17.27	17.27	5.73	5.73	5.73	156.33
foreign grant	13.21	23.14	26.03	27.50	34.27	36.43	38.35	39.25	40.93	33.97	31.08	5.73	5.73	5.73	361.35
foreign loan	8.28	8.90	8.90	11.66	11.92	11.92	11.85	14.21	13.89	13.44	12.22	4.46	5.09	5.09	141.83
private	25.64	62.22	78.56	85.29	92.15	103.53	126.60	78.21	63.78	38.78	19.23	0	0	0	773.99
total	63.76	120.55	141.76	157.43	173.67	188.75	214.76	171.48	160.67	129.02	106.43	20.39	21.02	21.65	1691.34

Table 2. Investment plan for implementation of all main environmental directives (millions of Euros)

Source: Ministry of Environment

Investments by the private sector are mainly related to air quality directives (for example the one on VOC), nitrate pollution directive, packaging and packaging waste directives. Foreign bilateral grant assistance is planned to cover important part of the needed investments. The main period for bigger bilateral grant assistance is planned for 2004-2010, amounting this period to more than 40 million Euros a year.

As the estimations by the Estonian Ministry of Environment reveal, the biggest investments needed are for increasing the quality of water and air, as well as for waste management. For needed investments for meeting demands of main directives regulating water quality (urban waste water treatment 91/271/EEC, quality of water intended for human consumption 98/83/EC, nitrate pollution from agricultural sources 91/676/EEC) more than 650 million Euros is needed (out of which ca 45 million Euros is to be covered by private sector).

Investments in waste management are mostly needed for construction of new landfills and for closure of existing ones. Currently there are some 250 existing small landfills in Estonia which are planned to be replaced by approximately 7 new landfills for non-hazardous waste by 2009, followed by closure of existing landfills. For 2000-2009 investment need to meet demands of main waste directives is calculated to be 350 million Euros (out of which ca 50 million Euros is to be covered by private sector).

Investment needs to meet demands of main air quality directives (the ones on large combustion plants 88/609/EEC, on control of the Volatile Organic Compound emissions 94/63/EC, standards for vehicles, improving the quality of fuels) is calculated to be more than 700 million Euros (out of which more than 3 million Euros is to be covered by public sector). Main investments in air quality stay with industry and private sector: renovation of power plants, big combustion plants, use of vehicles and less polluting fuels meeting EU standards, environmental measures related to the sale and handling of fuels.

Investment need for nature conservation is approximately 1.3 million Euros per year.

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	total
15.27	22.29	23.88	25.16	28.08	29.30	31.22	34.40	36.51	37.79	39.00	0.00	0.00	0.00	322.90

Table 3. Estimated investments in implementing urban waste water treatment directive 91/271/EEC (millions of Euros)

Source: Ministry of Environment

Affordability barriers

Weak administrative capacity is the main problem that Estonia will face while trying to finance all needed environmental investments for meeting requirements of transposition of EU *acquis*. However the ability to prepare reasonable projects to attract financing from EU Cohesion and Structural Funds is generally higher for environmental sector. It is due to the fact that the Ministry of Environment has long and successful history of bilateral cooperation in covering needed environmental expenditures and that experience can be easily transferred into good quality preparation work for getting EU financing for investments. The problem however is that due to small size of the country there are just few environmental investment projects which are big enough to qualify for EU financing. With high minimal size for the investments (such as 5 million Euros in case of ISPA) the Government is forced to combine smaller investment projects into packages which makes it difficult to implement and monitor properly. In Estonia's reality the environmental investment project with cost of more than 5 million Euros is already a very big project.

Biggest environmental investment projects of a state priority (such as wastewater treatment plants in towns or regional waste management project) are developed in cooperation between central government and local municipalities. In the long run nevertheless the municipalities are the ones which will be responsible for raising funds for needed investments.

Unfortunately their ability to attract financing from pre-accession funds, Structural and Cohesion Funds is low due to several reasons, most notably the lacking ability to prepare projects and because of low local co-financing possibilities.

Local municipality is the only administrative level in Estonia besides central government. Currently there are 247 municipalities. Although there is also historically a regional level in Estonia (there are 15 counties) the county does not have any administrative or decision-making functions. Out of 247 municipalities there are 42 towns of different size and the rest are rural municipalities. Majority of municipalities are having less than 5000 inhabitants and their tax revenues are just too small to enable them to carry out all needed investments (see Table 4).

Population of municipality	Number of municipalities
less than 1000	22
1001-2000	96
2001-5000	93
5001-10000	21
10001-20000	9
20001-50000	1
50001-100000	3
more than 100000	2

Table 4. Distribution of municipalities according to the size of population

Source: Ministry of Internal Affairs

Size of Estonian population is just 1.4 million and in situation where there are almost 250 municipalities with governing structures there is clearly a lack of well-educated and skillful people to compile projects for attracting financing from EU funds. This problem is especially acute in municipalities of rural or remote areas. For several years already the need for radical administrative reform is under discussion in Estonia. The reform may result in the number of municipalities decreasing from current 247 to less than 100 through forced mergers. From one hand bigger municipalities would be better equipped to prepare and manage investment projects but radical changes in administrative patterns may cause major problems with proper implementation of the projects already started.

Due to small size of many municipalities they are financially dependent on assistance from the central government. Roughly quarter of the revenues of local municipalities are currently coming in form of direct support from the state budget. As local tax revenues of small municipalities are often very limited than the financing of bigger investment project is dependent on foreign loans. As many municipalities have overestimated their ability to service debts there are 10 municipalities (the ones of Vohma, Vonnu, Kopu, Imavere, Olustvere, Kallaste, Moisaküla, Orissaare, Kehra and Keila) which are virtually bankrupted. To avoid similar cases in future, the Government of Estonia has set the upper limit of debt repayment and service costs to 20% of annual budgets of any municipality. But contributing even 25% as required local co-financing of environmental investment projects is often very difficult for municipalities.

The Government of Estonia has so far been rather optimistic in listing the predicted sources for financing the implementation of environmental directives of the European Union (see Table 2). The possible gap in financing is first time mentioned by the Government of Estonia in September, 2002. In the financing tables of the environmental investment projects of state priority for 2003-2006 only 25 million Euros out of total 848 million was mentioned as gap. The projects with possible financial difficulties are to be implemented by municipalities. The projects with estimated financing gap are the regional landfill for South-East Estonia and water or sewage projects in towns of Tartu, Pärnu, Paide, Saue and Narva-Jõesuu. In reality the financing gap is much bigger as the estimations of the size of ISPA and bilateral grant assistance are very optimistic and not confirmed.

In some cases the types of technical solutions which are done with investments for example into wastewater treatment are causing problems for municipalities. Often the conventional wastewater treatment technologies are used which involve subsidised construction costs but very high future maintenance costs which are to be covered from limited local budget sources. Estonia already has a case where municipality of Vormsi ended virtually in bankruptcy because the wastewater treatment plant was over-sized and the costs of daily maintenance were far too high for this small municipality to finance. For local wastewater treatment project the knowledge on alternatives (such as treatment wetlands / solutions of ecological engineering) exists in Estonia but has been not used so far.