

## **PUBLIC ENVIRONMENTAL EXPENDITURES IN TIME OF CRISIS IN ESTONIA**

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### **Abstract**

The purpose of this paper is to study the impact from the recent financial crisis on public environmental expenditure in Estonia. The data show different tendencies depending on the level of government. While the recent financial crisis has affected Local Government spending on environmental protection negatively, Central Government environmental protection expenditure increased by more than 30 percent between 2007 and 2008. Preliminary data indicate that this tendency continued in 2009. When comparing expenditures on environmental protection during times of crisis it is possible to detect differences between the developments in 1998-1999 and those in 2007-2008. Public expenditures on environmental protection were much more sensitive to declining GDP during the previous financial crisis than during the recent crisis. In the 2000s two important changes have affected environmental funding in Estonia. Accession to the EU in 2004 has made EU funding available for environmental protection. The ecological tax reform introduced in 2005 has increased the revenues of environmental charges earmarked for environmental purposes.

**Keywords:** public environmental expenditure, financial crisis

**JEL Classification:** H59, Q5, Q28, Q58, H72

### **1. Introduction**

The recent financial crisis has resulted in major cuts of public expenditure in Estonia. In order to bring the state budget into balance, the Estonian Government reduced state budget expenditures by 3.4 percent in 2008 (Ministry of Finance 2008). These cuts affected the Ministry of Environment by 7.5 percent. In 2009, falling tax revenues called for further adjustments.

Public expenditure management is an important aspect of a country's environmental policy. Major budget cuts in times of crisis might jeopardize attainment of critical long run objectives. Observations during the Asian financial crisis suggest that public environmental expenditure is more sensitive to cuts in public expenditure during periods of crisis than other public expenditure (Vincent 2002). Vincent and his co-authors find that environmental expenditures in Indonesia declined much more than budget cuts on average. A comparison to other Asian countries showed that environmental expenditures declined much more in Indonesia than they did in Malaysia, Thailand and Korea during the same time period. However, the article does not discuss potential reasons for these differences nor does it make any comparisons of environmental policies.

The study by Vincent and his co-authors represent one of several World Bank reviews about public environmental expenditure. The Public Environmental Expenditure Reviews or PEERs have had a wide variety of purposes including measuring the impacts of a financial crisis, preparing a ministry for budget cuts, tracking funds, and determining future resource requirements (Swanson, Lundethors 2003). However, a low level of public environmental spending is not in itself an argument for more expenditure. Studies on transition economies in Central Europe, as well as observations of environmental finance in Turkey, conclude that it is not primarily the lack of financing that limits environmental recovery; it is rather weak institutional capacity and unclear priorities that hamper environmental spending (Prekzko, Zylitz 1998; Sezer 2003).

Estonia has prioritized budget balance since independence and has succeeded much better than most other CEEE countries in keeping government budgets under control and reaching fiscal sustainability (Aristovnik, Bercic 2007). This position makes Estonian environmental expenditure in times of crises an interesting case study. The purpose of this paper is to follow the development of public environmental expenditure in Estonia and study the impact of financial crisis. Another purpose is to link developments to funding principles of the Estonian environmental policy.

We begin by describing the framework of funding of environmental policy in Estonia and after that we review data sources of environmental expenditure. Then a presentation of developments of public environmental expenditure during the time period 1995-2009 follows. Special attention is devoted to two periods of crisis 1998-1999 and 2008-2009. After that we discuss the results and present conclusions based on the observed developments.

## **2. Framework of Environmental Taxes and Charges**

Estonia has used economic instruments for environmental protection since early 1990s. The principal legislation that regulates environment taxes and charges in Estonia include the “Alcohol, Tobacco, Fuel and Electricity Excise Duty Act” (RT I 2007, 45, 319), the “Packaging Excise Duty Act” (RT I 1997, 5/6, 31) and the “Environmental Charges Act” (RT I 1999, 24, 361). A specific feature of the environmental taxes is that these accrue to the state budget for financing the general needs of the state. The packaging excise duty is an exception though, since 50 percent of revenues must be used for environmental protection and the remaining 50 percent is available for general needs. The proceeds from environmental charges are earmarked for environmental protection. Other sources of financing for environmental protection include the European Union funds, guided by the Estonian National Development Plan for the Implementation of the European Union Structural Funds – Single Programming Document 2004-2006, and the Operational Programme for the Development of the Living Environment for the years 2007-2013.

The environmental taxes in use are excise duties on fuel and packaging, and heavy goods vehicle tax. In 2008, an excise duty was imposed on electricity. Unlike many

other countries, there is no separate vehicle tax on passenger cars. In 2008, environmental taxes contributed 7 percent of the state tax revenue (approximately 5 billion EEK) (Keskkonnaülevaade 2009).

The most important source for the accomplishment of environmental policy objectives and implementation of the “polluter pays” principle are environmental charges. The purpose of the environmental charges is to prevent or reduce the possible damage related to the use of natural resources, emission of pollutants into the environment and waste disposal. Environmental charges are paid into the state budget where they are allocated for maintaining the state of environment, restoration of natural resources and remedying of environmental damage. A part of the environmental charges are paid into the local government budgets where they are used according to local needs (not necessarily for environmental purposes). The environmental charges paid into the state budget contributed approximately 1.5 percent of total tax revenue in 2008 (Keskkonnaülevaade 2009). The pollution charge was the most important revenue source, contributing about 1.3 percent in 2008. In the years prior to the ecological tax reform pollution charges contributed about 1 percent of total tax revenue.

There are two different types of environmental charges: the natural resource charge and the pollution charge. The pollution charge is levied on emissions of pollutants into the ambient air, water bodies, groundwater or soil, and on waste disposal. The natural resource charge in turn is divided into: the forest stand cutting charge, mineral resources extraction charge, water abstraction charge, fishing charge and hunting charge.

Since 1994, over 6 billion EEK have been paid for pollution, extraction of mineral resources and water abstraction charges (Keskkonnaülevaade 2009). About 76 percent (ca 4.6 billion) have been paid into the state budget and the rest into local government budgets. Environmental charge rates were initially set very low, considering the ability to pay of the population and for promotion of economic development.

With the economic advancement it has become possible to pay more attention to environmental protection. Already in 1996, the annual pollution charge rates were raised by 20 percent and the annual natural resource charge rate by 5-10 percent. In 2005, the Government decided to introduce an ecological tax reform. The key principle of an ecological tax reform concept is to increase the use of environmental taxes and reduce the burden on employment related taxes (income or social taxes). One of the aims of Estonian ecological tax reform is also that the overall tax burden (ratio to GDP) would not increase. As a first step personal income tax was lowered from 26 to 24 percent in 2005. All main environmental charges were raised substantially in 2006. By following the logic of the ecological tax reform the increase in charges was induced by the need to make economic instruments more effective and give producers and the general public a clear signal that Estonia wants to use its natural resources and environment in a sustainable way. The level of charges continued to increase in 2007 through 2009.

Major payers of environmental charges are enterprises with substantial environmental effects – oil-shale industry companies, chemical and paper industry, water supply and waste disposal enterprises, enterprises extracting and processing mineral resources. In 2007, ten major natural resource users paid 80 percent of the charges (Keskkonnaülevaade 2009).

### **2.1. Financing Environmental Measures**

Environmental charges have been an important source for financing the renovation of sewage disposal plants, investments into pollution abatement equipment and environmentally adapted waste disposal sites. Funds paid into the state budget for using natural resources are used according to the Environmental Charges Act through the Environmental Investment Centre (EIC) to promote environment protection. EIC's environmental programme is the main national measure for financing environment protection. The fields supported by the EIC programme include water management, waste management, nature conservation, forestry, fishery and environmental awareness.<sup>1</sup>

In total, 3.4 billion EEK were paid out under the environmental programme during 2000-2008. As the European Union has established strict fixed-term requirements for the quality of drinking water, purification equipment and sewage systems, most of the proceeds from environmental charges have been used for bringing the water supply into conformity with the requirements. Significant contributions have been made also into fulfilling the requirements established for waste treatment and disposal. Approximately 2 billion EEK in total were given through the environmental programme for the development of water supply and waste disposal infrastructure in 2000-2008 (Keskkonnaülevaade 2009). This amount was increased by the recipient's own contribution.

An important source of finance of environmental investment in addition to the environmental programme is foreign aid. In 2005-2008, Estonia received approximately 2 billion EKK worth of foreign aid for the development of environment protection infrastructure and environment protection activities (Keskkonnaülevaade 2009). The aid was received mainly from the EU Cohesion Fund, and three thirds (or 1.5 billion) were used in water supply for various investments for the improvement of the quality of drinking water and organization of sewage disposal and purification.

### **3. Data on Public Environmental Expenditure**

Statistics Estonia produces data on general government revenues and expenditures. The data set is available for the time period 1995-2008 ([www.stat.ee](http://www.stat.ee)) and is classified according to the United Nations Classification of the Functions of Government (COFOG)<sup>2</sup>. One of these government functions is environmental

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<sup>1</sup> <http://www.kik.ee/?op=body&id=105>

<sup>2</sup> <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=4>

protection and covers activities that reduce negative externalities. The definition of environmental protection set by OECD and Eurostat includes “activities aimed directly at the prevention, reduction and elimination of pollution or any other degradation of the environment resulting from the production processes or from the use of goods and services expenditure on waste management, waste water treatment, pollution control, protection of biodiversity and landscapes, and other environmental protection activities” (Swanson, Lundethors 2003). Environmental protection is broken down into six sub-categories:

- Waste management
- Waste water management
- Pollution abatement
- Protection of biodiversity and landscape
- Research and Development (R&D)
- Other environmental protection expenditures

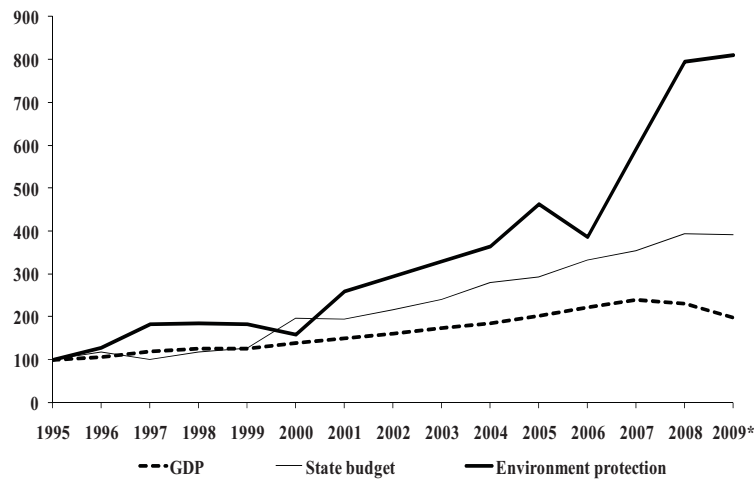
These data make it possible to follow the Central Government and Local Government expenditure on environmental protection and distribution by domain during 14 years.

Specification of investments into and current expenditure on environmental protection can be followed in another time series. These data are available for the time period 2001-2008 and for Local Governments only. Statistics Estonia collects information in a survey following SERIEE classification, which is similar to the COFOG system, but provides codes in greater detail. In addition, Local Governments are asked to allocate activities covering more than one code by specifying percentages. The COFOG system allocation is based on the majority principle implying that investments covering two fields will be categorized according to the major field of expenditures (Salu 2009). Even on aggregate level there might be discrepancies between these two sources when they cover more than one group of government functions. This is the case of waste water management included in government function of environmental protection and water supply, which is classified as the government function of housing and community amenities.

Since the purpose is to study the development of public environmental expenditure during the financial crisis, we are interested in covering latest developments. However, data for 2009 are not yet available. In order to assess most recent developments, preliminary budget data for 2009 have been collected from the Ministry of Finance. Another difficulty is that Estonia receives foreign aid for environmental protection purposes, which makes it difficult to detect “pure” public sector expenditure on the environment. In order to give an approximate estimate, we present assessments for certain years in our time series. The time series for environmental protection expenditures are presented at constant prices using the GDP deflator.

#### 4. Budget Cuts in Time of Crisis

Central Government budget expenditure for environmental protection was 1,450 million EEK at current prices in 2007. During the first year of crisis, in 2008, expenditure increased to 2,083 million EEK at current prices. In terms of Central Government budget expenditure, environmental protection was 2.3 and 2.8 percent respectively. Figure 1 shows the development of state budget expenditure, GDP and state budget expenditure on environmental protection during the time period 1995-2009.

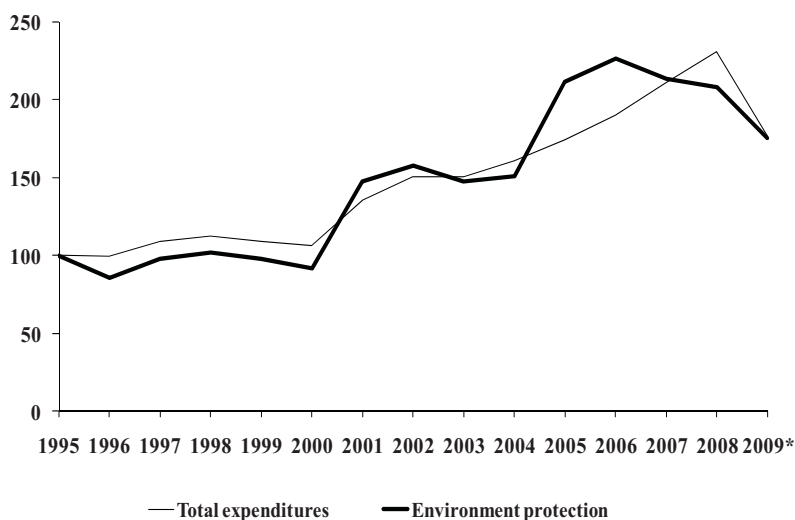


**Figure 1.** Gross domestic product, central government expenditure and central government expenditure on environmental protection, volume (constant prices), 1995 Index=100. (Authors' calculations, Statistics Estonia\*, Bank of Estonia and Ministry of Finance)

The figure shows that expenditures on the environment have grown significantly during the past few years. There have been reductions in spending on environmental protection, but these cut-downs occurred in 2000 and 2006. Between 2008 and 2009 there was a small positive increase in expenditure on environmental protection, while total state budget expenditures remained on the same level as a year before. Data thus suggest that Estonian state environmental expenditures have not suffered from budget cuts during the recent financial crisis.

Local Government expenditure on environmental protection was 907 million EEK in 2007. This means that Local Government expenditures were about 40 percent smaller than Central Government expenditures on environmental protection. As is the case of the Central Government, Local Government expenditures increased in 2008 and totaled 945 million EEK. However, at constant prices, Local Governments decreased spending on environmental protection during the first year of crisis. The

share of environmental protection expenditures was 3.8 percent in 2007 and 3.4 percent of Local Government expenditures in 2008. Figure 2 shows the development of Local Government expenditure in total and Local Government expenditure on environmental protection at constant prices during the time period 1995-2009.



**Figure 2.** Local government expenditure in total and expenditure on environmental protection, volume (constant prices), 1995 Index=100. (Authors' calculations, Statistics Estonia and Ministry of Finance\*)

The figure shows that expenditures on environmental protection have grown significantly during the time period 1995-2009. Since 2000, developments have been cyclic, with one peak in 2002 and another peak in 2006. The peak in 2006 coincides with a reduction in Central Government expenditure and with the introduction of the ecological tax reform. The growth in environmental protection expenditure is well correlated with total budget expenditure and in contrast to the central budget, local budget expenditures on environmental protection have declined over the past few years. This decline continued in 2009. Environmental protection expenditure decreased at a similar pace as the Local Government expenditure between 2008 and 2009. The significant correlation between Local Government budget expenditure and expenditures on environmental protection is probably related to Local Government responsibility for waste management and waste water treatment. To some degree these activities are financed by tariffs and when incomes decrease so do expenditures.

The recent financial crisis is the most severe, but not the only economic crisis that has hit Estonia since independence. The available time series covers the economic crises of 1998, which resulted in negative growth records in 1999. Table 1 shows

annual change in GDP, annual percentage change of expenditure on environmental protection during the time period 1996-2009.

The year-to-year changes in expenditures on environmental protection have fluctuated significantly during the time period under study. When comparing expenditures on environmental protection during times of crisis it is possible to detect differences between the developments in 1998-1999 and those in 2007-2008. The Central Government expenditures on environmental protection were more sensitive to declining GDP during the previous economic crisis than during the recent financial crisis. In addition, Central Government expenditure on environmental protection continued to contract in 2000 when the economy had recovered. It is difficult to predict the timing of recovery from the current crisis, but preliminary data on 2009 and the state budget of 2010 suggest further expansion of expenditure to the Ministry of Environment. According to the Ministry of Finance, growing expenditures are based on increases in EU funding (Ministry of Finance 2010). The direction of the development of Local Government expenditures on environmental protection has, on the other hand, been sensitive to budget cuts during the two crises.

**Table 1.** Annual percentage change of GDP, annual percentage change of expenditure on environmental protection at Central and Local Government in constant prices.

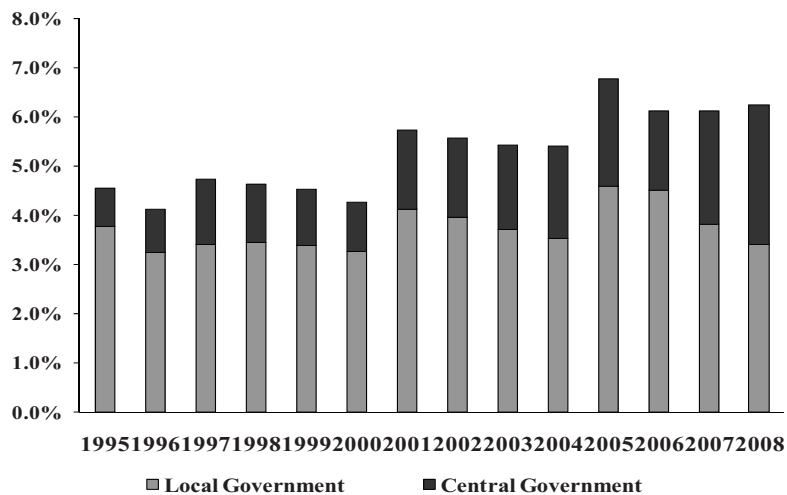
	GDP	Expenditure on environmental protection	
		Central Government	Local Government
1996	5.7%	27.9%	-14.3%
1997	11.7%	42.6%	13.9%
1998	6.7%	1.5%	4.5%
1999	-0.3%	-1.6%	-4.4%
2000	10.0%	-13.3%	-6.0%
2001	7.5%	64.4%	60.7%
2002	7.9%	13.1%	7.0%
2003	7.6%	11.9%	-6.6%
2004	7.2%	10.9%	2.1%
2005	9.4%	26.7%	40.3%
2006	10.0%	-16.4%	7.1%
2007	7.2%	53.1%	-5.8%
2008	-3.6%	34.7%	-2.4%
2009*	-14.2%	1.8%	-15.9%

Source: Authors' calculations, Statistics Estonia, Bank of Estonia and Ministry of Finance. Preliminary data\*.



Looking at a possible link between GDP growth and change in environmental protection expenditures suggests that impacts differ between Central and Local Governments. In six years out of fourteen, the direction of the year-to-year changes in expenditure on environmental protection differs for the two levels of government. The Central Government expenditures on environmental protection have grown more than GDP during ten years, while the same is true for Local Government expenditure only during four years. However, those years that GDP has grown at least 9 percent there has been a two digit growth in environmental expenditure in both levels of government during three single years: 1997, 2001 and 2005. On the other hand, a high level of economic growth does not seem necessary for growing expenditure on environmental protection (see Central Government expenditure on environmental protection in 2006).

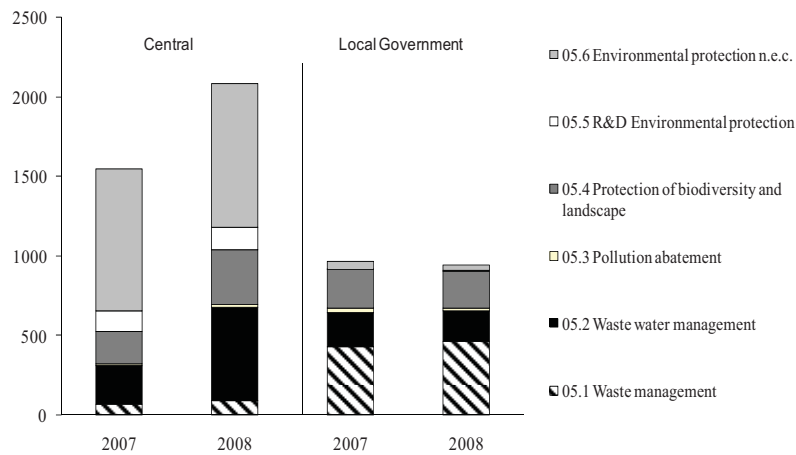
The different trends in expenditure on environmental protection between the central and local levels since 1995 can also be detected by looking at the environmental protection shares of budget expenditure (see Figure 3). While environmental protection expenditures have grown significantly as a share of Central Government expenditures from about 1 percent in 1995 to 2.8 percent in 2008, Local Government budget expenditures on environmental protection have been on a constant level of about 4 percent during the whole time period 1995-2008.



**Figure 3.** Environmental expenditure as percentage of total expenditures of local and central budget expenditures, 1995-2008. (Authors' calculations and Statistics Estonia)

#### 4.1. Environmental protection expenditure by domain

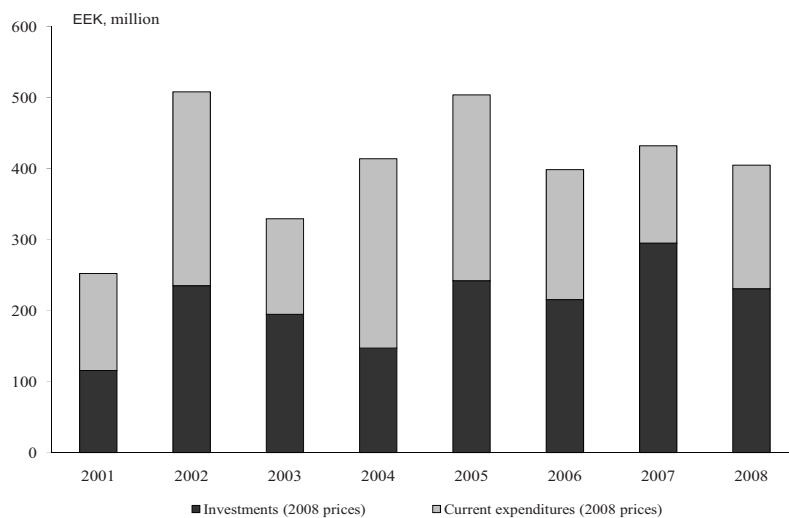
Government expenditures on environmental protection can be followed up by domain. While Local Governments made small adjustments, including cuts in waste water management, and pollution abatement expenditures in 2008, the Central Government increased its expenditures on waste water management and on protection of biodiversity and landscape. During the previous economic crisis, Central Government expenditure declined on waste management, waste water management and pollution abatement. Local Governments reduced all environmental protection spending except expenditures on waste management between 1998 and 1999.



**Figure 4.** Environmental expenditure by function, local and central budget expenditures, 2007-2008. Constant prices (price level 2008), million EEK. (Authors' calculations and Statistics Estonia)

#### 4.2. Investments

The available data on investments cover only Local Governments and show that spending has grown over time, but do not reveal any specific trend in terms of investments or current expenditures. During the time period 2001-2008, between 40 and 60 percent of Local Government expenditures on environmental protection concerns investments. From the beginning of 2000s until the end of the decade the focus has shifted from a dominance of waste water investments to an increasing share of waste management investments.



**Figure 5.** Local Government budget expenditures on environmental protection SEIREE method (prices 2008), million EEK. (Authors' calculations and Statistics Estonia)

#### 4.3. Foreign Aid

There is no comprehensive data set covering foreign aid payments to environmental protection expenditure in Estonia. Generally foreign aid only includes investments. According to gross estimates, foreign aid has made up the lion part of government investments into waste water treatment and to waste management. The share of foreign aid in the State Investment Programme on environmental investments varied between 50 and 60 percent during the time period 2002-2004 (Statistikaamet different years). In 2005-200, foreign aid made up 40-50 percent of environmental investments in the state sector (Keskonnaülevaade 2009). According to this source, foreign aid increased from about 600 million EEK in 2007 to about 700 million EEK in 2008. At constant prices, this corresponds to an increase of about 35 percent. Expenditures for co-financing environmental investments more than doubled – from 143 to 395 million EEK between 2007 and 2008. Since this source includes investments into the water supply system it does not exactly correspond to the earlier data set. The indication though is that foreign aid probably was an important driving force of the observed increase in environmental protection expenditure between 2007 and 2008.

In an overview about the use of environmental charges in Local Governments, Salu collected information about EU funding for environmental protection purposes (Salu 2009). The results indicate that between 4 and 16 percent of environmental protection expenditures of Local Governments were financed by various EU funds during the time period 2001-2007. However, Salu's data did not cover LIFE and

INTERREG programmes. Data for recent years and developments during the financial crisis period have not been possible to access.

## **5. Conclusions**

Data on public environmental expenditure show that the recent financial crisis has decreased Local Government spending on environmental protection, while this is not the case of the Central Government. Between 2007 and 2008, Central Government expenditure increased by more than 30 percent while Local Governments cut down their expenditure by 2.4 percent. Preliminary data indicate that this tendency has continued in 2009. When comparing expenditures on environmental protection during times of crisis it is possible to detect differences between the developments in 1998-1999 and those in 2007-2008. Public expenditures on environmental protection during the previous financial crisis were much more sensitive to declining GDP than during the recent crisis.

Another finding is that environmental spending of Local Governments is closely correlated to total budget expenditure. The expenditures on environmental protection have been on a constant level of the total budget of about 4 percent during the time period 1995-2008. The level environmental spending of the Central Government is not equally sensitive to total budget expenditures and their share of total Central Government expenditures grew from about 1 percent in 1995 to 2.8 percent in 2008.

In the 2000s two important changes have affected environmental funding in Estonia. Accession to the EU in 2004 has made EU funding available for environmental protection. In addition, the ecological tax reform has increased the revenues of environmental charges earmarked for environmental purposes.

The environmental policy aims of Estonia as a small member state of the European Union are closely interlinked with the respective ambitions of the EU, having been fixed in EU directives and other regulations. The European Union has decisively committed to ensuring environment protective development.

The ecological tax reform that shifts tax burden from negative taxes for welfare (e.g. employment related taxes) to positive taxes for welfare (e.g. taxes on activities that damage the environment, such as exploitation of natural resources or pollution) is necessary to contribute to solving environment related problems. At the same time, a long-term change in taxation presumes relatively stable income from the environment related tax base.

Estonia has in general fulfilled the environment related tax base stability condition due to the framework of environmental taxes and charges that are periodically adjusted. Environmental taxes and charges, according to law earmarked for financing environmental expenditure (a certain share of pollution and resources taxes goes to the Estonian Environmental Investment Fund), have allowed a relative independence of environmental spending from macroeconomic conjuncture. For

example, the environmental tax rates were raised 20 percent in 2009 on request of the Green Party, despite the economic recession.

Both central government and local sector expenditure on environmental protection in Estonia have regularly increased over the period discussed in the paper and have stayed relatively stable and independent from the fluctuations in the gross domestic product. Particularly remarkable has been the increase in environmental expenditure since 2007, which can be explained by opening of the EU Cohesion Fund resources for the budget period 2007-2013. Remarkable finance of environmental activities (above all sewage and waste disposal) from EU structural funds also explains the growth of government sector environmental expenditure in the period when the gross domestic product declined.

To sum up, the growth and stability of environmental expenditure in Estonia are based on a carefully thought out and regularly adjusted system of environmental taxes and charges, and the allocation of the tax proceeds for environmental expenditure is provided by law. Local and central government sector expenditures on the environment are increased by a significant amount of foreign aid from the EU structural funds, which are used mainly for water supply and waste disposal related environmental investments, as well as for nature protection expenditure. As a co-effect of various measures, Estonia has managed to preserve stability of environmental expenditure.

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## EESTI AVALIKU SEKTORI KESKKONNAKULUTUSED MAJANDUSKRIISI PERIOODIL

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### Sissejuhatus

Hiljutine majanduskriis on Eestis kaasa toonud ulatuslikud kärped avaliku sektori kulutustes. Riigieelarve tasakaalu hoidmiseks vähendas Eesti Valitsus 2008. aastal riigieelarvelisi kulusid 3,4%. Keskkonnaministeeriumit mõjutasid eelarvekärped koguni 7,5% ulatuses. 2009.a. korrigeeriti eelarveid seoses maksutulu vähenemisega veelgi.

Avaliku sektori keskkonnakulutused on riigi keskkonnapoliitika oluliseks instrumendiks. Kärped kriisiperioodil võivad tõsiselt ohustada pikaajaliste keskkonnapoliitiliste eesmärkide saavutamist. Aasia finantskriisi ajal toimunud protsesside analüüs on näidanud, et keskkonnakulutused kannatavad kärpete all võrreldes teiste avaliku sektori valdkondadega enam (Vincent *et al.* 2002). Vincent tõestab, et näiteks Indoneesias vähenesid keskkonnakulutused avaliku sektori keskmisega võrreldes palju rohkem. Võrdlus teiste Aasia riikidega näitab, et keskkonnakulutuste langus Indoneesias ületas samal perioodil toimunut Malaisias, Tais ja Lõuna-Koreas. Artiklis nenditakse küll keskkonnakulutuste erinevat käitumist riigiti kriisiperioodil, kuid ei analüüsita riikidevaheliste erinevuste põhjusi ega vastavaid keskkonnapoliitikaid.

Eesti on pidanud riigieelarve tasakaalu üheks oma poliitika nurgakiviks alates iseseisvuse saavutamisest ja on olnud avaliku sektori kulude kontrolli all hoidmisel ning rahanduse stabiilsuse saavutamisel paljudest Kesk- ja Ida-Euroopa riikidest edukam (Aristovnik, Bercic 2007). Seetõttu on Eesti avaliku sektori keskkonnakulutused kriisiperioodil huvitavaks uurimisobjektiks. Käesoleva artikli eesmärk ongi analüüsida Eesti avaliku sektori keskkonnakulutusi majanduskriisi ajal ja varasemate keskkonnapoliitiliste otsuste mõju kulutuste mahule.

### Keskkonnakaitse rahastamine Eestis

Eesti on kasutanud majandushoobasid keskkonnakaitse eesmärkide saavutamiseks alates iseseisvumisest. Näiteks suunatakse laekumised keskkonnatasudest sihtotstarbeliselt keskkonnakaitsele. Lisaks on kasutatud ja kasutatakse Eestis keskkonnakulutuste rahastamiseks ka teisi allikaid, nagu näiteks EL-i struktuurifondid perioodil 2004-2006 vastavalt Ühtsele programmidokumendile ja Elukeskkonna arendamise rakenduskavale perioodiks 2007-2013.

Nii kogu Eesti keskkonnapoliitika rahastamisel kui peamise põhimõtte „saastaja maksab” elluviimisel on tähtis koht keskkonnatasudel. Keskkonnatasude eesmärgiks on ära hoida loodusressursikasutusega kaasnevat keskkonnakahjustusi ja vähendada heitmete emissioone ja jäätmete teket. Keskkonnatasud makstakse riigi-

eelarvesse, kust nende abil rahastatakse tegevusi keskkonnaseisundi parandamiseks, loodusressursside taastamiseks ja keskkonnakahjude likvideerimiseks.

Alates 1994-st aastast on keskkonna saastamise, maavarade kaevandamise ja vee erikasutuse eest makstud üle 6 miljardi krooni (Keskkonnaülevaade 2009). Ligikaudu 76% sellest on laekunud riigieelarvesse ja ülejäänud kohalikele omavalitsustele. Algselt olid keskkonnatasude määrad majandusarengu kiirendamise eesmärgil ja reaalselt maksevõimet arvestades madalad.

Majanduse kasvades osutus võimalikuks pöörata keskkonnakaitsele suuremat tähelepanu. Alates 1996. aastast on saastetasu määr tõusnud 20% ja ressursikasutustasude määrad 5-10% aastas. 2005. a. otsustas Valitsus algatada ökoloogilise maksureformi, mis seisneb keskkonnatasude suurendamises ja tööjõuga seotud maksude (tulumaks, sotsiaalmaks) vähendamises. Ökoloogilise maksureformi oluliseks põhimõtteks on, et summaarne maksukoormus (maksude suhe SKP-sse) ei tohi kasvada. Reformi esimesel etapil vähendati 2005. a. üksikisiku tulumaksu 26-lt protsendilt 24-le. Järgmisel aastal (2006) tõusid kõik tähtsamad keskkonnatasud. Vastavalt ökoloogilise maksureformi põhimõttele oli tõusu põhjuseks keskkonnakaitse majandushoobade efektiivsemaks muutmine. Keskkonnatasude tõus andis selge sõnumi nii tootjatele kui tarbijatele keskkonnakasutuse muutustest suurema jätkusuutlikkuse suunas. Tõus jätkus ka perioodil 2007-2009.

#### **Andmed avaliku sektori keskkonnakulutuste kohta**

Statistikaamet esitab üldistatud andmeid valitsemissektori kulude ja tulude kohta. Andmed on saadaval perioodi 1995-2008 kohta ([www.stat.ee](http://www.stat.ee)) ja klassifitseeritud vastavalt ÜRO poolt sätestatud valitsuse funktsioonidele<sup>1</sup> (*The United Nations Classification of the Functions of Government*). Üheks valitsuse funktsiooniks on keskkonnakaitse ja negatiivsete välismõjude vähendamisele suunatud tegevused.

Keskkonnakaitse on jagatud kuueks alamkategoriaks:

- jäätmekäitlus;
- heitvee käitlus;
- saaste vähendamine;
- bioloogilise mitmekesisuse ja maastiku kaitse;
- teadus- ja arengutegevus keskkonnakaitstes;
- muu keskkonnakaitse.

Vastavalt ülaltoodud jaotusele esitatud andmed võimaldavad jälgida riigi ja kohalike omavalitsuste keskkonnakaitsekulutusi 14 aasta lõikes.

#### **Eelarvekärped kriisiperioodil**

Riigi kulutused keskkonnakaitsele 2007.a olid jooksevhindades 1450 miljardit krooni. Kriisi esimesel aastal (2008) suurenesid kulutused 2083 miljardi kroonini.

<sup>1</sup> <http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=4>



2007. ja 2008. aasta keskkonnakulutused moodustasid riigieelarve kogumahust vastavalt 2,3 ja 2,8 protsenti.

Kohalike omavalitsuste kulutused keskkonnakaitsele olid 2007. a. 907 miljonit krooni, olles riigi keskkonnakulutustest ligikaudu 40% väiksemad. Analoogiliselt riigi kulutustele suurenesid 2008. a ka kohalike omavalitsuste keskkonnakulutused, kasvades 945 miljoni kroonini. Siiski tuleb märkida, et jooksevhindades kohalike omavalitsuste keskkonnakulutused 2008. a võrreldes 2007. aastaga vähenesid, moodustades 2007.a 3,4 ja 2008.a 3,8 protsenti kohalike omavalitsuste kogukulutustest. Kui riigi keskkonnakaitsekulutuste osakaal riigieelarvest on kasvanud 1-lt protsendilt 1995.a 2,8-le protsendile 2008.a, siis kohalike omavalitsuste kulutused on püsinud kogu vaatlusaluse perioodi jooksul 4% ümber eelarvest. Aastate lõikes toimunud keskkonnakulutuste muutused erinevad vaatlusalusel perioodil tuntuvalt (vt. tabel 1).

**Tabel 1.** SKP, riigi ja kohalike omavalitsuste keskkonnakulutuste muutus perioodil 1996-2009, püsivhindades

	SKP	Keskkonnakaitsekulutused	
		Riik	Kohalikud omavalitsused
1996	5,7%	27,9%	-14,3%
1997	11,7%	42,6%	13,9%
1998	6,7%	1,5%	4,5%
1999	-0,3%	-1,6%	-4,4%
2000	10,0%	-13,3%	-6,0%
2001	7,5%	64,4%	60,7%
2002	7,9%	13,1%	7,0%
2003	7,6%	11,9%	-6,6%
2004	7,2%	10,9%	2,1%
2005	9,4%	26,7%	40,3%
2006	10,0%	-16,4%	7,1%
2007	7,2%	53,1%	-5,8%
2008	-3,6%	34,7%	-2,4%
2009	-14,2%	1,8%	-15,9%

Allikas: Autorite kalkulatsioonid, Statistikaamet, Eesti Pank, Rahandusministeerium.

Võrreldes keskkonnakulutusi kriisiperioodidel 1998-1999 ja 2007-2008, võib välja tuua olulisi erinevusi. 1998-1999 toimunud kriisi mõju riigi kulutustele oli võrreldes praeguse kriisiga märkimisväärselt suurem. Riigi kulutused eelmise kriisi perioodil olid tunduvalt enam mõjutatud SKP langusest. Lisaks jätkasid riigi keskkonnakulutused langust ka 2000. aastal, kui majandus oli taastunud. Praeguse majanduskriisi lõppu on raske ennustada, kuid nii esialgsed andmed 2009. a kohta ja 2010. a riigieelarve näitab Keskkonnaministeeriumi kulutuste kasvu. Rahandusministeeriumi andmete kohaselt toetub keskkonnakulutuste kasv EL toetustega seotud valdkondade rahastamise kasvule. Erinevalt riigi kulutustest on kohalike

omavalitsuste keskkonnakulutused olnud eelarvekärbete suhtes tundlikud mõlema kriisi perioodil.

### **Välisabi**

Kõikehõlmavad andmed Eestis välisabi eest tehtud keskkonnakaitselistest kulutustest puuduvad. Perioodil 2005-2008 oli välisabi osakaal riiklikes keskkonnakaitseskulutustes 40-50 protsenti (Keskkonnaülevaade 2009). Vastavalt nimetatud allikale kasvas välisabi 600 miljonilt kroonilt 2007. a 700 miljoni kroonini 2008. a. Sellest võib järeldada, et välisabil (eelkõige finantseerimine EL-i struktuurifondidest) on 2007. ja 2008. a toimunud keskkonnakulutuste kasvus oluline osa.

Vähe on andmeid välisabi summade kasutamisest kohalike omavalitsuste poolt. Erinevatele allikatele toetudes võib väita, et välisabi osakaal kohalike omavalitsuste keskkonnakulutustes aastatel 2001-2007 jäi 4-16 protsendi vahemikku, mis annab tunnistust, et välisfinantseerimise osakaal kohalike omavalitsuste keskkonnakulutustes on võrreldes riigi keskkonnakulutustega tagasihoidlik.

### **Järeldused**

Avaliku sektori keskkonnakulutuste analüüs näitab, et hiljutine majanduskriis on vähendanud kohalike omavalitsuste keskkonnakulutusi kuid ei ole avaldanud selget negatiivset mõju riigi keskkonnakaitseskulutustele. Perioodil 2007-2008 kasvasid riigi keskkonnakulutused 30%, samal ajal kui kohalike omavalitsuste kulutused kahanesid 2,4%. Esiolgu andmete kohaselt jätkus sama tendents 2009. aastal. Võrreldes keskkonnakaitseskulutusi kriisiperioodidel 1998-1999 ja 2007-2008, võib väita, et majanduskriiside mõju kulutustele on olnud erinev. Eelmise majanduskriisiga kaasnenud SKP languse mõju avaliku sektori keskkonnakulutustele oli praeguse kriisiga võrreldes palju tuntavam.

Käesoleval sajandil on toimunud kaks olulist keskkonnakulutusi mõjutanud muudatust. Astumine Euroopa Liitu 2004. aastal tegi võimalikuks juurdepääsu ulatuslikumatele EL-i keskkonnakaitselise rahastavatele fondidele. Eriti tähelepanuväärne on olnud keskkonnakulutuste suurenemine alates 2007. aastast, mis on seletatav EL-i struktuurifondide vahendite avanemisega eelarveperioodiks 2007-2013. Lisaks on ökoloogiline maksureform suurendanud sihtotstarbeliselt keskkonnakaitseliseks kasutatavate rahaliste vahendite laekumist. Ökoloogiline maksureform, mis soodustab keskkonnakvaliteedi parandamist, nihutab maksukoormust tööjõu maksustamisest keskkonda kahjustavate tegevuste maksustamisele. Samal ajal kindlustavad pikale ajaperioodile planeeritud muutused maksustamises keskkonnamaksudele stabiilse baasi.

Eesti on üldiselt täitnud keskkonnaga seotud maksubaasi stabiilsuse nõude tänu keskkonnamaksude süsteemi perioodilisele muutmisele. Asjaolu, et keskkonnatasud ja -maksud on ette nähtud sihtotstarbeliseks keskkonnaga seotud kulutusteks, muudavad keskkonnakulutused suhteliselt sõltumatuks makroökonomilisest

konjunktuurist. Näiteks kasvasid keskkonnatasude määrad 2009. a. vastavalt Rohelise Partei nõudele 20%, ja seda vaatamata majanduslikule surutisele.

Kokkuvõtteks võib öelda, et Eestis tehtavate keskkonnakulutuste kasv ja stabiilsus põhineb hästi läbimõeldud ja perioodiliselt muudetaval keskkonnatasude ja -maksude süsteemil, kusjuures küllalt hästi on reguleeritud maksudest laekuvate vahendite sihtotstarbeline kasutamine keskkonna heaks. Nii riigi kui kohalike omavalitsuste keskkonnakulutustes on oluline osa välisabil EL-i struktuurifondidest, mida kasutatakse peamiselt investeeringutena veevarustusse ja jäätmemajandusse, aga samuti ka looduskaitstes. Erinevate meetmete koosmõju tulemusena on Eesti saavutanud keskkonnakulutuste stabiilsuse ja suutnud seda säilitada sõltumata makroökonoomilise konjunkturi kõikumistest.