

# **Auditing economic instruments in environmental performance audits**

## **NAO of Estonia's decade of experience**

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## Questions

- Which audits were the economic instruments audited in?
- What kind of conclusions were made in relation to economic instruments?
- What audit methods have been used?
- What has been the impact of auditing economic instruments?

## What did we do?

- Review of 29 environmental performance audit reports (2005–2016)
- Focus on:
  - environmental resource use and pollution charges (taxes)
  - environmental service fees
  - emission trading schemes
- Audits covering management of natural resources and pollution, waste and water management, nature protection, environmental monitoring, etc.

	Year	EI audited	Audit title
1	2016	Green	Activities of local municipalities and the state in municipal waste management
2	2016	Green	Impact of European Fisheries Fund subsidies to aquaculture
3	2015	Red	State activities in nature conservation management to guarantee the preservation of semi-natural communities
4	2015	Light Green	Processing of hazardous and radioactive waste
5	2015	Green	Activities of state in organising treatment of oil shale mining and processing waste
6	2014	Green	Actions of the state in directing the use of oil shale
7	2013	Green	Sustainability of the state developed drinking water and waste water infrastructure and its impact on achieving environmental goals
8	2013	Red	Maintenance and development of information systems in area of government of Ministry of the Environment
9	2012	Light Green	Alternatives for electricity production
10	2012	Red	Effectiveness of measures for improving the status of Lake Peipus
11	2011	Red	Calculation of timber felled and sold from state forests
12	2010	Light Green	Supervision over use of pesticides and mineral fertilisers
13	2010	Red	Sustainability of management of state forest
14	2010	Green	Effectiveness of collection and recovery of packaging waste
15	2009	Dark Green	State's efforts of reducing greenhouse gas emissions
16	2009	Red	Complex reduction of pollution in larger farms
17	2009	Green	National arrangement of mining mineral resources used in construction
18	2009	Red	Control of fisheries in the Baltic Sea
19	2009	Light Green	Activities of the state in achieving energy conservation
20	2008	Dark Green	Impact of Pollution Charges on Reducing Environmental Pollution
21	2008	Green	Financing of environmental projects through the Environmental Investment Centre Foundation
22	2008	Red	Conservation of valuable forest habitats in areas of the Natura 2000 network
23	2007	Red	Construction Activities in Coastal and Shoreline Areas
24	2007	Light Green	The planning of tree-cutting at the State Forest Management Centre
25	2007	Green	The development of sewage treatment in rural areas by means of Cohesion Fund projects
26	2007	Red	The efficiency of the organisation of environmental monitoring
27	2007	Red	The establishment of the Southern Estonia Hazardous Waste Collection Centre
28	2006	Red	Handling of hazardous waste at intermediate depositories and garbage dumps
29	2005	Green	Exploitation of peat resources

## Have we audited economic instruments?

Out of 29 audits 17 incorporated auditing of economic instrument (EI), which can be divided:

1. 2 audits: Audit's main focus (incl. main question) is on the instrument and its impact. Audit conclusions and recommendations are dedicated to improving the whole system of implementing the instrument(s).
2. 10 audits: Audit pays significant attention to the instrument – one of the audit report's sub-questions/sub-chapter is dedicated to instrument's design, enforcement and/or impact. Conclusions and recommendations are made in relation to the instrument.
3. 5 audits: There is information about the instrument in the report, but no conclusions or recommendations are made in relation to it.

12 reports didn't involve auditing EIs – audit scope didn't presume it or the EIs didn't play a significant role in the audited area.

# Conclusions

## Taxes

- Impact on the environment, but also socio-economic aspects (incl. impact to the competitiveness of enterprises) is not assessed before imposing the tax.
- Justification of tax rates (incl. tax exceptions) is weak, e. g. tax rates on pollutants are not in correspondence with their hazardousness.
- Pollution and resource taxes are too low to cause behavioural changes, e. g. investments into new technologies.
- Environmental taxes should be supported by the legislation, and higher or increased rates of taxes.
- Indirect calculation methods for pollution or resource use are not adequate and fair.
- Governmental institutions do not verify properly the accuracy of data. Therefore there is a risk that the resource use and the pollution load are bigger than reported and accordingly, less tax is paid.

# Conclusions

## Environmental service fees

- Fees do not cover all the costs (incl. environmental externalities) and the sustainability of the service is not guaranteed, which may result in damage to the environment, depreciation of investments (assets) and pressure to the authorities' budget.
- Environmental service fees are too low and do not have an impact on changing human behaviour to consume or pollute less.

## Emission trading scheme

- NAO of Estonia audited ETS in 2009, the audit was entitled “**State’s efforts of reducing GHG emissions**”
- Similarly, in the late 2000s many other SAIs scrutinized the ETS system, we compared audits from UK (2009), Austria (2008), the Netherlands (2007) and ECA (2015)
- Most audits on the EU ETS focus on the implementation of the system in the corresponding Member State, as well as, try to assess the effectiveness of the system. Except ECA.

## Main findings from ETS audits

- ETS system was successfully established but it is unlikely that it has caused a reduction in GHG emissions
- The price of allowances is too low and there is an oversupply of allowances
- More emphasis has been put on the interests and competitiveness of the companies
- Monitoring, supervision and verification systems could also be improved
- Other national policy instruments are not always in line with the ETS system

## Impact of audits

- Environmental charges have been revised
- Supervision has improved (> more taxes collected)
- Ministry of the Environment is developing a method for evaluating environmental externalities of resource use and pollution
- Working groups have been founded to solve the problems
- GHG verification is improved
- Infringement procedures by supervising authorities

**Thank you!**



## Group 1

2009		State's efforts of reducing greenhouse gas emissions
2008		Impact of Pollution Charges on Reducing Environmental pollution

## Group 2

2016		Activities of local municipalities and the state in municipal waste management
2016		Impact of European Fisheries Fund subsidies to aquaculture
2015		Activities of state in organising treatment of oil shale mining and processing waste
2014		Actions of the state in directing the use of oil shale
2013		Sustainability of the state developed drinking water and waste water infrastructure and its impact on achieving environmental goals
2010		Effectiveness of collection and recovery of packaging waste
2009		National arrangement of mining mineral resources used in construction
2008		Financing of environmental projects through the Environmental Investment Centre Foundation
2007		The development of sewage treatment in rural areas by means of Cohesion Fund projects
2005		Exploitation of peat resources

## Group 3

2015		Processing of hazardous and radioactive waste
2012		Alternatives for electricity production
2010		Supervision over use of pesticides and mineral fertilisers
2009		Activities of the state in achieving energy conservation
2007		The planning of tree-cutting at the State Forest Management Centre