Environmentally harmful subsidies

How has the impact of environmentally harmful subsidies been assessed and what has prevented phasing them out?

Overview of the National Audit Office for the Riigikogu Tallinn, 4 April 2022

Dear readers,

Russia's war against Ukraine which began in the morning of February 24 has put Estonia in a completely new situation, in almost every area of life.

The development goals set by Estonia in the areas of social protection, economy, environment and many other areas continue to be relevant, but the impact of Russia's military actions means that the journey to achieving the objectives may be more complicated than previously thought. The new context does not necessarily mean abandoning the end goals and deadlines, but it does mean a plan that takes the circumstances into account to achieve those goals.

The situation in the field of environmental protection and energy is also new. It is clear that we need the results of the green transition, particularly the reduction of dependence on oil and gas, more than ever before. Because oil and gas tend to come from a country whose budget we do not want to fill. On the other hand, it cannot be ruled out that measures that did not fit into action plans before the war will have to be implemented in the coming years. We need to differentiate between the long term and what happens in a year, two or three.

Energy independence is emerging for achieving which in the short term there is no environmentally friendly solution, but which is also one of the long-term goals of the green transition. True, we are still a long way away from ensuring energy independence with wind and solar energy. Achieving this in the winter months would require a major leap in production capacity and storage capacity, but this breakthrough is more of a long-term matter.

Rather, certain setbacks can be expected as some EU states had planned to rely on Russian gas in the transition to the green transition. Both the shortage of gas in the summer and autumn of 2021 as well as the Russia-Ukraine war that began this winter that exacerbates the shortage even more mean that the shortage of gas is hoped to be overcome by increasing the use of coal in place of gas. In Estonia, it was planned to stop the production of oil shale electricity by 2035, but at the same time, the intention is to maintain the production capacity and the state is prepared to pay for it.

Sometimes you have to take a step back to take several steps forward later. The question is, however, whether we allow the temporary to become permanent. If that happens, we might discover again at one point, just like this autumn with the dizzying increase in electricity prices, that time has been wasted but despite all the warnings, we are not ready to adapt to the changing world. The slow construction of Estonian wind farms is a sad example of ignoring the warnings.

The state and private enterprises have already made and will continue to make significant investments to achieve the environmental objectives. At the same time, we might find ourselves in a situation where the state provides funds for the prevention, mitigation or elimination of environmental problems with one hand but contributes to the burden on the environment with the other hand through various support schemes, tax exemptions, incentives and other similar measures.

Many states have identified economic measures with significant adverse environmental impact, on the one hand to avoid measures with the opposite effect and, on the other hand, to gradually phase out subsidies that have a significant impact on the environment. The gradual phasing out of such subsidies must also, of course, take into account that in addition to environmental objectives, the state must also take account of socio-economic objectives. But there is nothing that prevents taking the first step – identifying the subsidies with a significant environmental impact and analysing their impact in the subsequent development of economic measures to avoid the establishment of new subsidies that have an undesirable impact on the environment.

Janar Holm
Auditor General

in April 2022

Summary of the results of the overview

Problem to be solved

Many support schemes, tax exemptions, incentives and other economic measures in force in Estonia run counter to the state's own environmental objectives and may also be economically inefficient.

The state should not contribute to pollution, more intensive use and waste of resources (e.g. mineral resources, water, energy, products and services), loss of habitats, etc.

Main conclusion of the overview

Environmentally harmful subsidies have not been identified in Estonia, nor has their impact been assessed. There is also no aim set to amend or gradually phase out those measures.

Environmentally harmful subsidies are the activities/support without reciprocity from the public sector that provide an advantage to certain consumers, users or manufacturers as additional income or reduction of costs but that have an adverse environmental impact (foremost due to increased production and consumption which would not have come about without the state's support).

The amount of environmentally harmful subsidies can be considerable, for example Finnish tax exemptions related to transport and energy that are considered to be environmentally harmful total 3.2 billion euros. Finnish state budget for 2020 was 62 billion euros.

Environmentally harmful subsidies send signals to the public and the private sector to act and make investments that run counter to the environmental objectives set by the government. In most cases, these subsidies are incompatible with the principle that the polluter pays, encourage dependence on state support and that some products or services offered are not economically sustainable.

On the one hand, harmful subsidies contribute to the burden on the environment, and, on the other hand, the state has to spend money to mitigate and eliminate these impacts. For example, the state has supported depositing waste in a hazardous waste landfill in such a way that the ad-hoc fee collected from entities landfilling waste to close the landfill does not cover all the costs of covering the landfill and the state has also had to use taxpayers' money. Taxpayers' money has had to be used to also eliminate environmental pollution caused by incompetent management.

Elsewhere in the world, environmentally harmful subsidies are the most prevalent in the energy, transport, and agriculture sectors. In recent years, a number of tax and charges exemptions have been added in Estonia and individual decisions have been made that may be considered to be environmentally harmful based on the experience of other states. For example, these may be support for renewable energy for burning wood in an oil shale power plant, various incentives for large-scale energy users, construction of a shale oil plant. A number of decisions have also been made during the Covid-19 crisis which clearly show signs of being environmentally harmful subsidies, such as lowering excise duty on fuel and the pollution charge for disposal of oil shale ash.

Obstacles

There are no obstacles to identifying and assessing environmentally harmful subsidies, but there are circumstances in amending and phasing them out that must be acknowledged before taking action. These are mainly other – socio-economic – objectives, and the complexity of assessing the impact and effectiveness thereof, lack of (political) priority, opposition by stakeholders, etc.

There is no clear goal in Estonian strategic documents and laws to identify and phase out environmentally harmful subsidies. At the same time, this is not in conflict with the objectives of development plans. Identifying and phasing out environmentally harmful subsidies does not require a reorganisation of the work of authorities but a more precise targeting of activities, reviewing of priorities and a more thorough assessment of the existing and future economic measures.

Necessary steps

In order to use state funds wisely, without compromising environmental objectives and, at the same time, with socio-economic objectives in mind, the following steps should be taken:

- **Designate a responsible governmental authority and identify all subsidies with adverse environmental impact comprehensively and in the area of responsibility of all ministries.** The identification of environmentally harmful subsidies provides a basis for a more thorough assessment of economic measures with a more significant environmental impact and for mitigating their impact or gradually phasing them out.
- **Use existing international methodologies for identifying and assessing environmentally harmful subsidies by adapting them to the needs of Estonia.** At first prepare so-called ID-cards for the identified subsidies in which the impact caused by them and the ability to reform them is assessed.
- **Analyse the environmental impact of economic measures in developing them and avoid establishing new environmentally harmful subsidies.** The current impact assessment of draft legislation and development plans is not thorough enough to help identify environmentally harmful subsidies. It is important that the assessment of environmentally harmful subsidies is a regular action rooted in practice.
- **After identifying and assessing environmentally harmful subsidies more thoroughly, it becomes clear which subsidies are easier to phase out.** Priority should be given to the abolition of environmentally harmful subsidies that are socio-economically acceptable, the abolition of which is not opposed, and the abolition of which has a positive impact on both the environment and the budget.

Purpose of the changes

The purpose of identifying environmentally harmful subsidies and assessing their impact is to identify all potential environmentally harmful subsidies and, as the first priority, phase out those that have a significant adverse environmental impact and that are ineffective, i.e. that do not meet their original objective or that have more efficient alternatives. The aim is also to avoid establishing new subsidies that could potentially be environmentally harmful.

Responses of the auditees

The auditees found that addressing the topic of environmentally harmful subsidies is necessary and it needs to be addressed further. In a situation of limited public funds, it is important to comprehensively assess whether the state has subsidies that are environmentally harmful and that cause additional costs to society. Several auditees are of the opinion that a clear government mandate and coordination across governmental authorities is needed to identify environmentally harmful subsidies and assess their impact. It is also important to agree on common criteria and methodology for assessing environmentally harmful subsidies.

The auditees emphasised that in addition to environmental objectives, the achievement of other objectives of the state must also be taken into account when it comes to environmentally harmful subsidies. The abolition of subsidies may be justified in the long run, but they should be maintained in the shorter term in the absence of more environmentally friendly alternatives. It was also pointed out that several support measures

are valid throughout the European Union and it is either not possible or not reasonable for Estonia to abolish them unilaterally.

Several auditees indicated that efforts are already being made at both the European Union and the Estonian level to assess the environmental impact of subsidies and to determine the purposefulness of the measures. For example, the new common agricultural policy of the European Union and its subsidies have greater environmental ambition. The European Union has also shown that all state support and investments must take environmental issues into account and that activities with an adverse impact on the environment are not acceptable.

Both the Ministry of the Environment and Statistics Estonia are prepared to contribute to the project of identifying and assessing environmentally harmful subsidies.

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Environmentally harmful subsidies – what and why?

Environmentally harmful subsidies favour activities that have a negative impact on the environment

1. Economic measures incompatible with environmental objectives (hereinafter referred to as *environmentally harmful subsidies*)[1] are the activities/subsidies for which the public sector does not receive remuneration and that provide an advantage to certain consumers, users or manufacturers as additional income or reduction of costs, but that also have an adverse environmental impact which would not have arisen without the state's support.[2]

2. The adverse impact may occur in relation to natural resources, climate, air, soil, water and biodiversity, human health, increased consumption of raw materials, etc.

3. Inaction can also be considered as an environmentally harmful subsidy of the state. For example, due to the absence of a measures, prices may not contain environmental and social costs (e.g. environmental damage or health costs) and thus are indirect subsidies to users / polluters.[2]

Elimination of environmentally harmful subsidies is important

4. The state should not encourage activities that contribute to pollution, intensify the use of resources, cause habitat loss, etc. through direct or indirect economic measures. The ultimate goal of identifying and assessing environmentally harmful subsidies is to modify or phase out state subsidies of incompatible character, i.e. those having a significant negative impact on the environment and hindering the achievement of the state's own environmental goals. At the same time, other socio-economic goals of the state must be taken into account.

5. As a rule, environmentally harmful subsidies are ineffective[5] and thus waste public money. The state contributes to the burden on the environment with one hand and gives money with the other to prevent, mitigate or eliminate these effects. Such subsidies may also distort the market, giving the recipient enterprise a competitive advantage over other enterprises in the same sector. For example, supporting the production and consumption of energy from fossil fuels hampers the development of renewable energy, which cannot compete with the fossil fuels without subsidies. Environmentally harmful subsidies also contribute to the unsustainability of services if not all costs associated with the provision of the service are included in the price (e.g. for water and sewerage services) and to dependence on public subsidies if the production / activity takes place only through direct or indirect public subsidies.

6. The state's support that potentially is incompatible with the achievement of environmental objectives sends the wrong signal to the private sector to operate and invest (the subsidy locks in to invest in old technology) and thus does not support the transformation of the economy into a green transition.

Selection of environmental goals of Estonia

Achieving climate neutrality by 2050, reducing air pollution, abandoning fossil fuels, promoting renewable energy, etc. Estonia generated 11.6 million tons of CO_2 emissions in 2020, and the transport sector is particularly problematic in terms of reducing it.

Achieving good status of water bodies by 2021 (with the exception of 2027). In 2020, only a little over half (53%) of Estonia's surface water bodies were in good condition. Rather, the situation has deteriorated.[3]

Preservation and restoration of biodiversity. In 2019, 4 of Estonia's 60 habitat types were in poor condition and 22 were in insufficient condition.[4]

Reducing waste generation and increasing waste recycling, e.g. recycling of domestic waste by 55% by 2025 (it was 29% in 2020).

[1] In English: *environmentally harmful / damaging subsidies*.

[2] Environmentally Harmful Subsidies. Challenges for Reform. OECD, 2005; Environmentally Harmful Subsidies (EHS): Identification and Assessment. IEEP, 2009, pp. 15–17.

[3] Updated interim assessment of the status of Estonia's surface water bodies in 2020 (explanatory memorandum). Environmental Agency, 2021

[4] Status of the habitat types in 2019. Ministry of the Environment (in Estonian).

[5] See, e.g., Reforming environmentally harmful subsidies . Nordic Council of Ministers, 2011, pp. 26–27.

7. The need to identify and phase out environmentally harmful subsidies has been highlighted for decades by international organisations, including the United Nations (UN), the Organisation for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF), the World Bank and the G20 uniting the world's largest economies, European Union etc.[6] (see also Figure 3).

8. As early as 2011, the European Commission set an intermediate target in its Resource Efficient Europe Action Plan for phasing out of environmentally harmful subsidies by 2020.[7] The European Green Deal also calls for the EU's public budgets to be made greener in order to direct public investment, consumption and taxation towards the objectives of the Green Deal and to avoid harmful subsidies. In order to meet the climate targets, the need to phase-out fossil fuel subsidies and to carry out a comprehensive green tax reform is emphasised in particular.[8]

Methodologies for assessing environmentally harmful subsidies are available

9. Methodologies and guidelines have been developed for the identification and assessment of environmentally harmful subsidies and have been used by countries and international organisations for a few decades. It is generally based on the OECD methodology (see Annex A), which has been adapted by the countries to their needs. Several countries have produced separate reports on environmentally harmful subsidies (see Annex B).

Fossil fuel subsidies have been the main focus

10. The work commissioned by the European Commission in 2021 identified 750 different types of environmentally harmful subsidies in the EU countries.[9] Most attention had been paid to supporting the production and consumption of fossil fuels. Therefore, environmentally harmful subsidies in the fields of energy and transport had been the most addressed. At the same time, there are also environmentally harmful subsidies in industry, agriculture, fishing industry, and forestry, construction and housing, resource consumption, waste management, and the circular economy, tourism and others fields. Economic measures in various fields that have a negative impact on species' habitats and biodiversity had received special attention.[10]

11. In the case of environmentally harmful subsidies, a distinction can be made between the stages of their initial identification, assessment, modification and elimination (see Figure 1), the simplest of which is the identification stage.

For your information

International organisations have compiled databases on environmentally harmful subsidies, in particular fossil fuel subsidies:

- The OECD's Fossil Fuel Subsidy Tracker (database);
- The International Energy Agency's (IEA) Fossil Fuel Subsidies Database.

[6] For example, "United Nations' Sustainable Development Goal 12.c"; the closing document of the 2021 United Nations' Conference on Climate Change (COP26); Aichy Target 3 of the United Nations' Convention on Biological Diversity (CBD); the 7th and 8th Environmental Action Programs (EAP) of the European Union; the Europe 2020 Strategy (European Semester), and Roadmap to a Resource Efficient Europe; the European Green Deal; "Fit for 55" plan: Delivering the EU's 2030 climate targets on the path toward climate neutrality; European Climate Regulation 2021/1119.

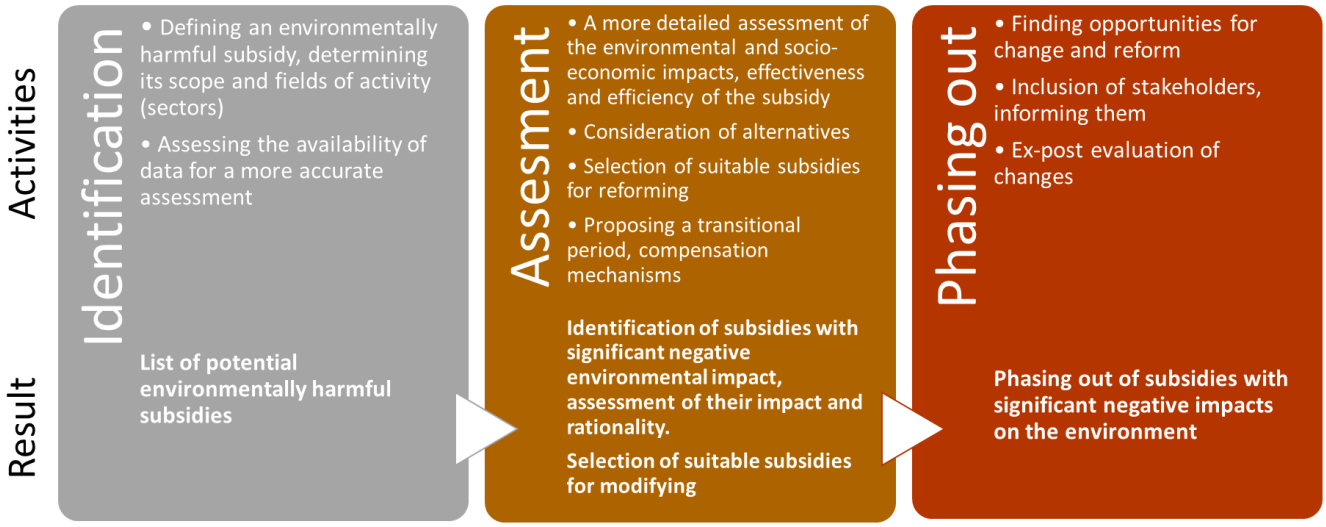
[7] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions. Roadmap to a Resource Efficient Europe. COM 2011, pp. 10–12.

[8] Communication from the Commission to the European Parliament, the European Council, the Council of the EU, the European Economic and Social Committee, and the Committee of the Regions. The European Green Deal, COM 2019, p. 17, 21.

[9] Mapping objectives in the field of environmental taxation and budgetary reform: Environmentally Harmful Subsidies. A European Commission Project. Presentations at the seminar on 15/11/2021 (slides 14–15).

[10] See, for example, "Economic Measures Harmful to Biodiversity" (in German). The German Federal Agency for Nature Conservation, 2019.

Figure 1. Simplified scheme for the identification, assessment and phasing out of environmentally harmful subsidies



Source: National Audit Office on the basis of data from the Institute for European Environmental Policy (IEEP)

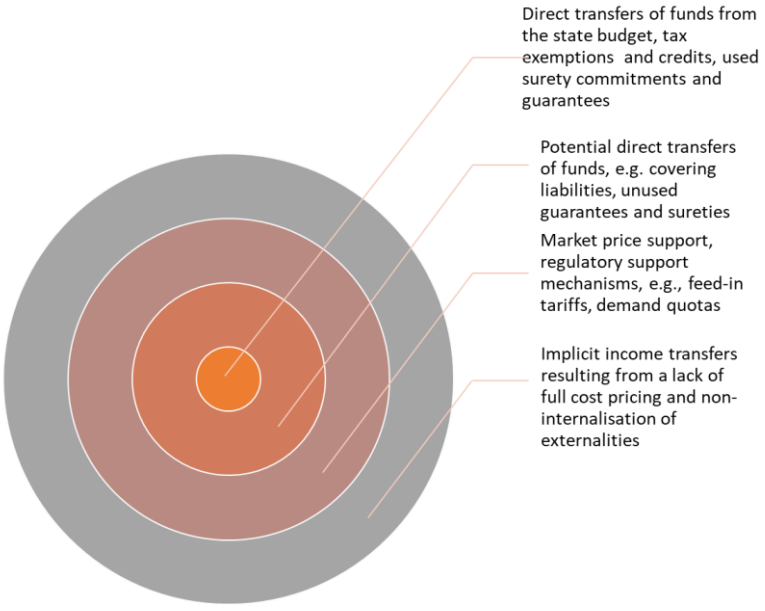
For your information

The **Germany**'s Environmental Subsidy Report assesses each subsidy measure (primary or secondary environmental impact) in the following areas: climate, air, water, soil, biodiversity and landscape, health and resources.

Source: Lea Köder et al. Environmentally Harmful Subsidies In Germany. Updated Edition 2014 (in English). German Environment Agency, 2014, p. 61

12. The main purpose of the primary identification of environmentally harmful subsidies is to determine the economic measures used by the state that may have a negative impact on the environment (see Section 2). To do this, it must be decided which type of economic measures (Figure 2 and Annex A) and in which fields of activity will be considered (see Section 10).[11]

Figure 2. Economic measures by type (inside the circle are the ones which should be primarily covered by the identification of environmentally harmful subsidies)



Source: National Audit Office of Estonia based on various sources

Priority will be given to identifying direct transfers and tax exemptions

13. In the initial identification of environmentally harmful subsidies, it is important to identify measures that may have a negative impact on the environment. Therefore, the term *potentially* environmentally harmful

[11] Potentially environmentally harmful subsidies – definitions and approaches for measurement. European Commission, Eurostat, 2019.

subsidies is also used. The size / extent of the environmental impact and other effects need to be assessed during the more in-depth assessment phase.

For your information

Italy has identified both environmentally friendly and harmful subsidies. A so-called ID card is prepared for each subsidy, which indicates, among other things, the level at which the measure should be modified (regional, national, European or global one).

Source: Italian catalogue of environmentally friendly subsidies and environmentally harmful subsidies 2016 (in English). Italian Ministry of Environment, Land and Sea, 2016; the 2019 Report (in Italian, summary in English, pp. 13–20)

14. After an initial identification, it is important to carry out a more in-depth assessment in order to clarify the effects of the subsidies and their elimination, and to identify those subsidies that need to be modified or eliminated (see Annexes A and C). This is a preparatory phase for changes and reforms, where will be identified the subsidies that have a high negative environmental impact and are ineffective, which have better alternatives to achieve their objectives and that are easy to modify, or modification of which is obviously needed.

15. It is a completely separate activity to modify or eliminate environmentally harmful subsidies, where the existence of (political) will and finding opportunities is an important precondition. It is important to inform and involve stakeholders (so-called "losers" and "winners") about the need for change and to develop a plan (e.g. for eliminating the measure and developing compensation mechanisms). The elimination of environmentally harmful subsidies should be linked to changes in broader subsidy-related, tax and budgetary policies.

16. In addition to identifying and modifying subsidies that may be incompatible with existing environmental objectives, all these activities also aim to prevent the introduction of such measures.

Environmentally harmful subsidies have not been fully identified in Estonia

Previous activities in identifying and modifying environmentally harmful subsidies

17. Estonian laws and strategic development documents do not explicitly include the objective of identifying or eliminating environmentally harmful subsidies. In Estonia, neither environmentally harmful subsidies have not been completely and consciously identified and assessed, nor steps have been taken to phase them out.

For your information

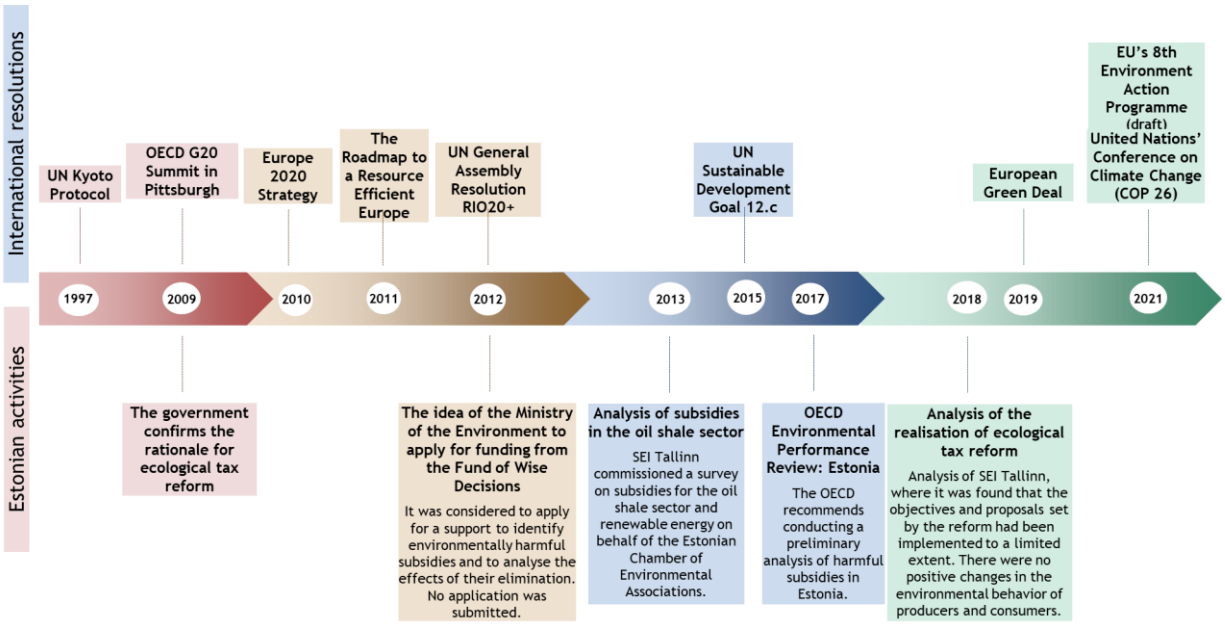
In 2019, the **German** Federal Agency for Nature Conservation prepared a report on economic measures affecting biodiversity (in German).

18. International organizations have conducted overviews assessing, among other things, Estonia's subsidies[12], but these are either too general or focused only on fossil fuel subsidies.

19. There are some Estonian initiatives (e.g. the ecological tax reform and the 2013 SEI Tallinn work on subsidies for the oil shale sector, see Figure 3), but they have either not been used in decision-making, the initiatives have stalled, or these works addressed individual aspects related to the topic.

[12] E.g. Dominic Hogg et al. Study on Environmental Fiscal Reform Potential in 12 EU Member States . Eunomia, Arhus University, 2014, Chapters 10.1.3 and 10.2.2, and Annex A.9.5; Environmental Performance Reviews: Estonia 2017. OECD, 2018, Chapter 3.4; OECD Fossil Fuel Subsidy Tracker, December 2021.

Figure 3. Major international resolutions and Estonian initiatives that emphasise the need to identify and phase out environmentally harmful subsidies



Source: National Audit Office of Estonia

For your information

In Italy, the Ministry of Ecological Transition is leading the elimination of environmentally harmful subsidies.

In Germany, the initial identification of environmentally harmful subsidies was carried out by the national environmental agency.

In Finland, the initial identification of harmful subsidies was carried out by the Ministry of the Environment, but the Ministry of Finance is responsible for the regular overview of harmful subsidies during the preparation of the state budget.

20. While it has been the task of notifying international organisations of environmentally harmful subsidies, this has been done in a thinly-sourced manner and without further analysis. For example, one of the objectives of the UN Convention on Biological Diversity is to eliminate subsidies that can damage biodiversity.[13] Estonia's 2014 report to the Secretariat of the Convention states that there are no such subsidies in Estonia.[14] The 2019 report indicates possible subsidies with a negative impact, but no more in-depth analysis has been performed.[15]

21. The identification of environmentally harmful subsidies has not been considered by anyone and there is a lack of a state mandate and central leadership to do so. The topic is mostly related to the fields of activities of the Ministry of Finance, the Ministry of the Environment, the Ministry of Economy and Communications, and the Ministry of Rural Affairs.

Identifying the money spent on environmentally harmful subsidies and the resulting impacts

22. So far, no environmentally harmful subsidies have been assessed in Estonia on the basis of internationally proposed methodologies or the experience of other countries. Therefore, the NAO examined whether any other process would make it possible to assess the more precise impact of the established subsidies and to avoid the development of new environmentally harmful subsidies.

[13] Objective 3 of the Convention on Biological Diversity.

[14] V National Report to the Convention of Biological Diversity. Ministry of the Environment, 2014, p. 59

[15] The 6th National Report for the Convention on Biological Diversity, Ministry of the Environment, 2019, pp. 26–27.

For your information

The Rules for Good Legislative Practice and Legislative Drafting and the Basic Principles for Legislative Policy have set out the principles for policy-making:

- decisions that are expected to have a greater impact need to be more thoroughly assessed when preparing policy measures;
- when considering decisions, options need to be taken into account and their impacts need to be assessed;
- it is important to assess the consequences of implementing the measures adopted.

Different solutions are not considered, and the effects are not identified when awarding subsidies

For your information

In 2017, 119 drafts were submitted to the Ministry of Justice for approval, and the notice of intention was prepared for 39 drafts. An ex post impact assessment plan was in place for 3 drafts, and 106 drafts did not have such a plan or no information about it was available.

The notice of intention to initiate a bill will help to involve different parties at an early stage and to identify possible impacts and the possibility of other solutions.

Ex post assessment makes it possible to assess whether the subsidy has achieved the desired objective and what its effects have been.[18]

23. The state has established the principles of common legislative and regulatory practice[16], which should help to ensure that the subsidy (direct subsidy or tax exemption) is the necessary and most appropriate solution to achieve the objective (alternatives are considered) and that the significant effects, including environmental impacts, are identified. According to these principles, the state should constantly monitor the effects of the implementation of subsidies: whether the targeted subsidies, tax benefits and tax exemptions have been effective in helping to achieve the set objectives, such as ensuring competitiveness or livelihood security and social equality. Where necessary, measures need to be modified to achieve the desired impact and rational use of money.

24. According to an overview by the Ministry of Justice, in practice these principles are often not followed in the legislative process. Before drafting a law, no notice of intention to initiate a bill is usually prepared, and no ex post impact assessment is usually planned for the draft law. It is not clear whether the distribution of subsidy funding and tax exemptions will have the desired result and how they will have a substantial effect on the environmental position.[17]

25. According to the ministries, the strategic environmental assessment (SEA) helps to prevent the negative environmental impact of subsidies during the preparation of development plans in the field and the planning of the EU's subsidy funding.[18] According to the experts[19], the SEA carried out in the impact assessment of development plans is not suitable for identifying environmentally harmful subsidies, as they describe and assess subsidy measures at a general level and do not allow for a more accurate assessment of impacts. Rather, the identification of environmentally harmful subsidies is a so-called financial task, where, in addition to the environmental impact of the subsidy, it is important to understand who is more affected (e.g. who benefits from tax exemptions, and what is the impact on the state budget) and to what extent (quantification of subsidies, see Annex A). Therefore, the identification of environmentally harmful subsidies and the assessment of wider impacts need a separate analysis.

26. Estonia uses activity-based budgeting[20], where sectoral development plans (18 pieces) are likely to be more general and more detailed activities are planned to be set out in the programmes than before.[21] According to the Government Office, it is no longer planned to carry out a strategic environmental assessment of development plans. This means

[16] The Rules for Good Legislative Practice and Legislative Drafting. Regulation No 180 the Government of the Republic of Estonia dated 22/12/2011; Approval of the Basic Principles for Legislative Policy until 2030. Decision of Riigikogu (the Parliament) dated 12/11/2020; Impact assessment methodology. The Ministry of Justice and the Government Office, 2021 (in Estonian)

[17] Trends in legal policy until 2018: report on implementation in 2018. Ministry of Justice, 2018 (in Estonian)

[18] Environmental Impact Assessment and Environmental Management System Act. 2005.

[19] Riin Kutsar (SEA expert), Aldo Ravazzi (Italian Ministry of Ecological Transition).

[20] Activity-based state budget. Website of the Ministry of Finance, as of 08/11/2021.

[21] Procedure for preparation, implementation, reporting, assessment, and amendment of the development plan and programme of the field of activity . Regulation No. 117 of the Government of the Republic of Estonia dated 19/12/2019 (in Estonian).

that the assessment is carried out at an even more general level and does not provide more detailed information on the subsidy measures.

27. In summary, failure to comply with the rules for good legislative practice runs the risk of introducing subsidies that are ineffective (i.e. which fail to meet the set target) and could have significant negative impacts on the environment, the social sphere, and the economy.

28. Already existing environmentally harmful subsidies need to be thoroughly assessed. The need for a thorough assessment of subsidies will continue in the future, as a comprehensive legislative impact assessment and strategic environmental assessment of development plans will not fully replace the thorough identification of harmful subsidies described in the methodologies (of international organisations). Incentives for introducing a subsidy may also disappear over time if the economic or social environment / situation has changed.

Examples of environmentally harmful subsidies

29. Experience in other countries shows that environmentally harmful subsidies can be identified in all fields of activities. Most of this has been done in energy and transport (especially in relation to fossil fuel subsidies), but agriculture and fishing industry, waste management, industry, (residential) construction, etc. are also important sectors.

In the field of energy, the most important environmentally harmful subsidies are in the oil shale sector

30. In the field of energy, countries use mainly direct subsidies (e.g. subsidies for fossil fuel plants, free CO_2 emission allowances for these plants, research and development subsidies for fossil fuel exploration and exploitation) and tax exemptions (e.g. tax exemptions for large electricity and gas consumers, environmental and energy tax exemptions for users of fossil fuels). Several tax exemptions (reductions or total tax exemptions) that also apply in Estonia are provided for in the EU's Energy Taxation Directive.[22] Some of them are mandatory for countries, but many countries have introduced additional tax exemptions to protect people's purchasing power and ensure the competitiveness of enterprises.

31. Economic measures in the field of energy are considered harmful to the environment if they make products more favourable to consumers and thereby motivate them to consume energy. Consumption of fossil fuels pollutes the air and emits greenhouse gases, affecting the landscape and habitats through the extraction of fossil fuels. Subsidies for technologies that use fossil fuels lock society in their use and discourage the use of new, innovative technologies.

Environmental impact of the energy sector

In 2020, the oil shale sector caused

- 45% of Estonia's CO_2 emissions;
- 86% of Estonia's SO_2 emissions;
- 28% of NO_x emissions (total energy sector);
- 42% of fine particulate matter ($PM_{2.5}$) emissions (total energy sector);
- 67% of waste generation and 77% of hazardous waste generation.

Source: Environmental Assessment Indicators, Environmental Agency

[22] Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity.

For your information

Environmentally harmful subsidies in the Estonian energy sector have also been identified by international organisations. For example, the OECD's 2017 environmental overview mentions allocating free CO_2 emission units to energy producers in the amount of €74 million and subsidies to shale oil producers of approx. €5 million (in 2014).

Source: Environmental Performance Reviews: Estonia 2017 , OECD, 2018, Chapter 3.4

32. For example, supporting the production of energy from fossil fuels hampers the use of renewable energy, as renewable energy enterprises are unable to compete with the production capacity of subsidised fossil fuels. In order to create new renewable energy production capacities, the state has introduced the subsidy for renewable energy. In 2010–2021, the main transmission system operator Elering has paid nearly €834 million in renewable energy subsidy. At the same time, however, large-scale subsidies have also been given to fossil fuel-based energy production, such as:

- free of charge allocation of emission allowances to installations using oil shale equal to *approximately* €661 million (2013–2021);
- cash contributions to increase the share capital of state owned energy company Eesti Energia AS (the public limited energy company): €150 million in 2010 and €125 million in 2020 for the construction of a new power plant and new shale oil plants;
- The subsidy to the oil shale sector in 2016 in the amount of approximately €78 million (by reduction of extraction charges for the third quarter of 2015 to 2021);
- The subsidy paid in 2010–2021 was approximately €48 million (from natural gas, and oil shale gas) for electricity generated in a combined heat and power production regime.

Example of a contradictory subsidy

The Ministry of Economic Affairs and Communications introduced the subsidy for biomethane production.

One enterprise, which previously used biomethane from its own residues, started selling it and using fossil natural gas instead of biomethane after the subsidy was introduced.

The enterprise later applied for a subsidy to compensate the costs of natural gas, and the ministry began to pay a subsidy to a large gas consumer.

33. Among the most important environmentally harmful subsidies in the field of energy in Estonia is the planned reduction of the renewable energy fee for large energy consumers, the financial impact of which is expected to be approx. €20 million per year. (See Annex D for a longer selective list of environmentally harmful subsidies).

34. The contradictory of subsidies in the energy sector is illustrated by the support for the construction of a new shale oil plant. The construction of a new oil plant will cost almost €300 million and would emit approx. 0.6 million tons of CO_2 emissions per year. At the same time, the state has allocated more than €230 million in the EU's subsidy funding for various energy efficiency projects. As a result of these projects, reduction of annual CO_2 emissions of approx. 0.2 million t/a was achieved (2014–2020). Thus, supporting the construction of shale oil plant will nullify the efforts of energy efficiency projects to reduce air pollution.

35. While subsidies are provided for the development of renewable energy production and energy saving, the use of fossil fuels and large energy consumers are also subsidised.

In the field of transport, the most important environmentally harmful subsidies are fuel tax exemptions

36. Based on the experience of other countries, there is also a lot of environmentally harmful subsidies in the field of transport. Tax exemptions prevail, but there are also direct subsidies. As in the case of energy, a number of tax exemptions in transport (such as tax exemptions or reduced tax rates) are provided for in the EU's Energy Taxation Directive.

Environmental impact of the transport sector

In 2020, the transport sector caused

- 37% of NO_x emissions to ambient air;
- 19% of CO_2 emissions.

For your information

if one litre of petrol burnt produces 2,350 g of CO_2, then one litre of diesel does 2,660 g of CO_2.

Source: M. Jüssi, H. Poltimäe, K. Sarv, H. Orru. Sustainable Transport Report 2010. Commission for Sustainable Development, Tallinn, 2010, p. 25

Examples of subsidy programmes in the field of transport

- The subsidy for the purchase of electric vehicles – €12.1 million.

  (The subsidy for the purchase of electric vehicles has been distributed by the Environmental Investment Centre (€1.2 million) as well as the KredEx ELMO programme (€10.5 million)
- Establishment of a fast charging network amounts to €5.7 million.

  (The state sold the ELMO's fast charging network 16 times cheaper than the construction price. Estonian Public Broadcasting, 14.08.2018.)
- Development of public transport connections – €436 million (incl. the subsidies for the provision of ferry, train and bus connections in 2014–2017 in accordance with the Transport Development Implementation Plan).

37. The detrimental effects of subsidies in the transport sector are that they favour the use of fossil fuel transport by consumers or encourage the use of fuels with a higher environmental impact. As a result, consumers will continue to use fossil fuels or prefer vehicles that use more polluting fuels (e.g. diesel), which emit more air pollutants (NO_x, particulate matter) and greenhouse gases.[23] The construction of new infrastructure, which can destroy and fragment natural habitats and contribute to car use, is also considered to be an environmentally harmful transport-related subsidy.

38. As in the field of energy, support for fossil fuels in the field of transport will support the continued use of previous technologies. For example, lower excise tax rates on diesel compared to petrol lead consumers to choose diesel-fuelled vehicles. However, fossil fuel subsidies more generally hinder the introduction of biogas-fuelled, electric and hydrogen-fuelled vehicles.

39. According to data from several countries, it is in the field of transport where occur the largest environmentally harmful subsidies. In Finland, for example, such subsidies include a reduced tax rates on company vehicles, a lower tax rate on diesel compared to petrol, and a lower tax rate on light fuel oil used in industrial equipment than a conventional tax rate.

40. Based on the analogies presented in the works of other countries, the largest financially harmful subsidies in the field of transport in Estonia are related to fuels' tax exemptions. The use of diesel carrying a fiscal marker (2021) in agriculture and commercial fishing reduces the costs of fuel users by €27 million and the costs of the oil shale sector temporarily by €5 million. Due to that, less money also goes to the state budget. The lower tax rate on diesel compared to petrol has a significant financial impact – based on the energy content of the fuels, the monetary value of preferring diesel due to the lower tax rate on diesel is approx. €67 million per year. (See Annex D for details.)

41. Economic measures in the field of transport may be contradictory with other measures. For example, lowering the excise tax rate on diesel has hampered the use of electric vehicles.[24] At the same time, the state is making efforts to increase the use of biogas and electric vehicles and to reduce the use of motor vehicles (e.g. construction of foot and cycle roads, promotion of public transport, development of the charging network, support for the purchase of electric cars, see also examples in the left column).

[23] ITF 2020. The Future of Passenger Mobility and Goods Transport in Estonia: Input Study for the Estonian Transport and Mobility Master Plan. International Transport Forum Policy Papers, No. 78, OECD Publishing, Paris, p. 68.

[24] Raul Potisepp: Raising the excise tax on diesel is a logical step in promoting cleaner technologies. Äripäev, 17/04/2021 (in Estonian).

Environmental impact of the agricultural sector

In 2020, only 58% of rivers and 21.5% of lakes were in good condition.

The entire Estonian coastal sea is in poor condition.

Agricultural (diffused) pollution has a significant impact on water bodies.

Source: Surface water and groundwater condition – interactive map. Environmental Agency, 19/10/2021

In 2010–2018, greenhouse gas emissions from chemical fertilisers and manure and the use of arable land and grassland had increased in Estonia.[28]

Source: Guy Pe'er et al. A greener path for the EU Common Agricultural Policy. Science 365 (6452): 449–451, 2019

Agricultural subsidies are considered problematic across the EU in terms of environmental impact

42. There are also environmentally harmful subsidies in the fields of agriculture, fishing, and forestry. In most cases, these are direct subsidies paid under the European Union's common agricultural, maritime and fishing or regional policies, or paid by the member states themselves. At the same time, there are tax exemptions for farmers, such as a more favourable excise tax rate on specific-purpose diesel fuel for agricultural vehicles and fishing vessels. In the sector, the state also provides, for example, loan guarantees and insurances that can be considered environmentally harmful according to the international methodology for determining environmentally harmful subsidies (see Annex A).

43. Subsidies that intensify agricultural activities, including the livestock sector, promote the use of fertilisers and plant protection products and thus have a detrimental effect on both surface water and groundwater, soil condition, biodiversity, and increase greenhouse gas emissions are considered to be potentially harmful to the environment.

44. Determining environmentally harmful subsidies in agriculture is problematic. The implementation of the EU's common agricultural policy (CAP) seeks to minimise environmental impacts and supports environmentally friendly practices (e.g. subsidies for organic production), but the CAP is still criticised for its lack of ambition in mitigating environmental impacts. For example, the European Court of Auditors has pointed out that the CAP has not reduced emissions from the livestock sector or contributed to an overall increase in carbon sequestration in soil and plants.[25]

45. Reports on environmentally harmful subsidies in other countries highlight primarily direct subsidies (Pillar I) and regional subsidies (Pillar II). Subsidies related to the livestock sector and its products, as well as marketing, export and insurance have been considered the most environmentally harmful. Lower wages in less developed regions or even in agricultural land have also been considered harmful to the environment.[26] These various subsidies are intended to help farmers, but from an environmental point of view they favour more intensive production and thus have an impact on the environment.

46. The elimination of environmentally harmful subsidies for agriculture and fishing industry is complicated by the fact that these subsidies are used throughout the EU, i.e. that it is difficult for an individual member state to give them up, as this puts its producers at a competitive disadvantage. Making direct subsidies more environmentally friendly has been found to be still ineffective in protecting biodiversity and tackling climate change.[27] In December 2022, a new package of legislation was adopted by the European Parliament and the Council, which should make the EU's CAP greener across the EU.[28]

[25] Special report: Common Agricultural Policy and climate. European Court of Auditors, 2021, pp. 37, 38, 55.

[26] See the reports for the other countries listed in Annex B for more information.

[27] Guy Pe'er et al. A greener path for the EU Common Agricultural Policy. Science 365 (6452): 449–451, 2019.

[28] The European Commission's website on the Common Agricultural Policy (accessed on 18/02/2022); see legislation adopted.

Environmentally harmful subsidies can be found in many areas

47. Environmentally harmful subsidies can also be found in other areas, such as housing, waste management, industry, but they are less covered in other countries' reports (see Annex D). In waste management, the insufficient application of producer responsibility in the collection and handling of packaging and products of concern, a renewable energy subsidy for waste incineration, insufficient and undifferentiated fees for waste services have been considered as environmentally harmful subsidies.

Differential treatments of environmental charges are considered to be environmentally harmful subsidies

48. Environmental charges related to the right to use resources (water, mineral resources) and pollute the environment and their differential treatments can be considered as a separate topic. In order to meet the objective of environmental charges[29], it is important that they have an impact on pollution / consumption behaviour and that they include external costs, i.e. the right price for the resource. If these costs are not covered, this is a harmful subsidy.[30] Different rates for different users can also be considered as environmentally harmful subsidies (see Table 1), because they give someone an advantage for higher consumption or pollution of natural resources. Larger differential treatments of environmental charges support the oil shale industry in Estonia (especially the production of electricity from it).

For your information

The water pumped out of mines and quarries in Ida-Viru County affects both the drinking water supply of the area (from the Vasavere groundwater uptake) and the protected ecosystems (e.g. the Kurtna Lake District).

Table 1. Differential treatments of environmental charges and the subsidy thus granted (loss of income)[31]

Environmental charge	Explanation[32]
Lower rate of use of surface water as cooling water	In 2020, 586 million m^3 of surface water was used as cooling water (mostly) for the production of oil shale electricity. A resource charge of €1 million was paid to the state for this. The rate of use of surface water as cooling water in 2020 was €1.63 / 1000 m^3, and the standard rate of surface water abstraction (for other water consumers) was €29.52 / 1000 m^3. According to this, the state supported the use of surface water as cooling water with €16.3 million.
The charge for the water abstraction is not charged if the water is taken ▪ to obtain hydropower; ▪ for irrigating agricultural land, including under shelter areas; ▪ for fish farming.	The state supported fish farmers with €2.2 million in 2020 by not charging fish farmers for surface water abstraction (the calculation has been made if they had been subject to the standard surface water abstraction rate). Taking similar account of the subsidy for groundwater abstraction for fish farmers and irrigation of agricultural land, the lost charge was €20,000.
Non-application of the charge if the mineral resource is extracted by the owner of an immovable	In 2020, the state supported the extraction of mineral resources owned by a private person with approximately €5.5 million by not imposing a charge for the right to extract

[29] The purpose of an environmental charge is to prevent or reduce the possible damage relating to the use of natural resources, emission of pollutants into the environment and waste disposal, to direct the more efficient use of natural resources and to earn revenue from the provision of natural resources (Environmental Charges Act, § 4).

[30] Ideally, the environmental charge should be high enough to cover all costs related to the use / pollution of the resource, incl. external costs. However, many countries have initially excluded the calculation of such costs from their reports on environmentally harmful subsidies because of the difficulty in identifying these costs.

[31] Environmental Charges Act, § 9, 10, 21.

[32] Regulation No. 169 of the Government of the Republic of Estonia dated 17/11/2014 "Fees for the right to use water for water abstraction from a body of water or aquifer." Annex. Calculations had been made at 2020 rates.

	mineral resources (the calculation has been made according to the chargerates for state-owned mineral resources).
Differential treatment and reduction of the oil shale ash disposal charge	The rate of the disposal charge for the oil shale ash is lower than that for other waste, €2.98 per tonne and €29.8 per tonne, respectively. In 2020, due to the COVID-19 crisis, the rate of the oil shale deposit charge was temporarily reduced further, down to €1.3 per tonne. Through this, the state supported the dumping of oil shale ash in 2020 with €8.1 million.
Lower rate of environmental charge for surface water and groundwater pumped out of mines and quarries	In 2020, the state supported the pumping of water from quarries and mines with €5.8 million by applying a lower abstraction rate (the calculation was made if they had been subject to the abstraction rate for drinking water).

Source: Environmental Charges Act, based on data from the National Audit Office

Obstacles to the phasing out of environmentally harmful subsidies. How could they be overcome?

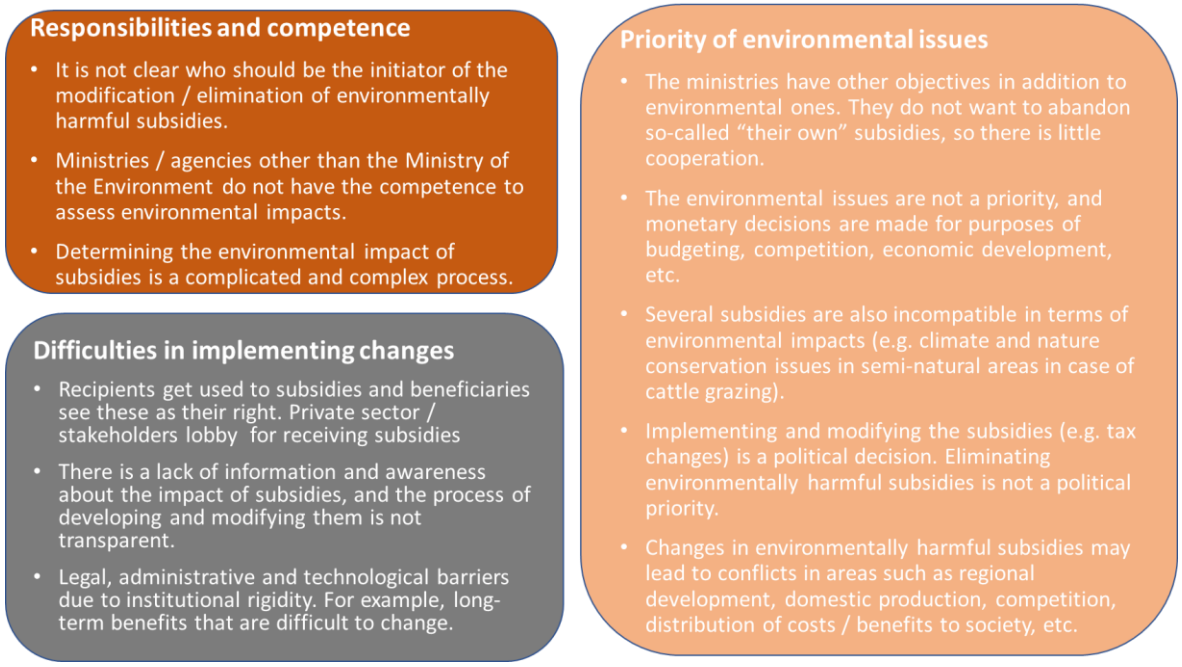
49. In order to better understand the difficulties in identifying, assessing and modifying environmentally harmful subsidies in Estonia and how this could be done, the NAO has got acquainted with what has been done in Estonia so far, organised a focus group discussion with the concerned parties[33], also examined the experience of other countries (see Annex B) and international reports and articles.

It is necessary to appoint a responsible party for identifying environmentally harmful subsidies

50. In the discussion of the focus group, it was found that there are essentially no obstacles to the initial identification and assessment of environmentally harmful subsidies. Rather, the parties see obstacles to the modification or elimination of the subsidies. In particular, there are concerns that addressing the environmental impacts of public subsidies could jeopardise the achievement of other objectives, such as the following areas: economic development, the competitiveness and survival of Estonian enterprises, and livelihood security of the socially disadvantaged. Figure 4 summarises the main obstacles identified in the focus group discussion and from the international experience.

[33] Representatives of the Ministry of Finance, the Ministry of the Environment, the Ministry of Economic Affairs and Communications, the Ministry of Rural Affairs, Statistics Estonia and Valdur Lahtvee and Helen Poltimäe participated in the discussion of the focus group. See the overview specification, p. 18.

Figure 4. Obstacles and fears in assessing and phasing out environmentally harmful subsidies



Source: the NAOE, based on the focus group discussion and international experience

51. The focus group found that in order to identify environmentally harmful subsidies, it is necessary to agree on who is ready to coordinate activities and who would compile an overview of environmentally harmful subsidies. When compiling the overview, it must be borne in mind that the results of the work may lead to opposition from stakeholders and people who have benefited from the various economic measures so far.

52. The ministries considered that the central coordinator could be the Government Office, as this is an intersectoral issue that affects the use of funds and the state budget. According to the ministries, they have their own goals, which they stand for and which may be somewhat contradictory. As an inter-ministerial agency, the Government Office can monitor larger objectives and, if necessary, reconcile the ministries. However, in the opinion of the Government Office, issues requiring co-operation between the ministries do not always have to be managed by the Government Office, and rather the Ministry of the Environment, the Ministry of Finance or another agency could be responsible for the area of environmentally harmful subsidies.

53. The focus group considered that there should be a clear mandate to identify and assess environmentally harmful subsidies. The Ministry of the Environment is ready to lead the project, but it is important to agree on criteria and the extent of environmentally harmful subsidies to understand them in a uniform manner, regardless of who identifies and assesses the subsidies. Other parties see themselves as providers of information and participants in identifying environmentally harmful subsidies in their field.

54. The National Audit Office considers that it is not of primary importance whether the assessment of environmentally harmful subsidies and the obligation to eliminate them is stated in a law or development

For your information

The Green Policy Steering Committee and a respective expert group have been set up at the Government Office, whose task is to develop the necessary proposals for the implementation of the green transition.

Identifying and assessing environmentally harmful subsidies could be one of the activities in the framework of the Green Deal.

Source: Regulation No. 250 of the Government of the Republic of Estonia dated 09/07/2021 "Establishment of the Green Policy Steering Committee"

For your information

Italy has required the Green Economy and Resource Efficiency Act to receive an annual overview of environmentally harmful subsidies.

document. At the same time, it would provide a clear basis for action. Relevant documents may be, for example, long-term development strategy 'Estonia 2035', the Sustainable Development Act and the action programme of the Government of the Republic of Estonia.

Overviews of environmentally harmful subsidies should be regular

55. The experience of other countries shows that the regularity of compiling an overview of environmentally harmful subsidies is important. This will make it possible to monitor developments and trends, help keep the issue on the agenda, and provide an ever-improving and truthful overview of subsidies.

56. The NAO considers that all ministries / agencies should increase their environmental competence, including by using the advice and assistance of the Ministry of the Environment. Existing international methodologies and experience can be used to identify environmentally harmful subsidies and experts can be involved. The European Commission also attaches great importance to the issue of environmentally harmful subsidies and is preparing guidance material for member states to assess them.[34]

Climate and environmental issues are increasingly a priority

57. According to international experience, the interests of the whole country, its greater objectives and rational use of funds must be taken into account when justifying the priority of identifying environmentally harmful subsidies. It is not sensible to maintain or create measures that run counter to the objectives. Climate and environmental issues are becoming increasingly important in the eyes of both the public sector and the private one. As a result, their political importance is growing. It is important to assess the impacts and find compromises. Abandoning the measures can be step-wise and it might offer compensatory mechanisms.

Changes must be justified, and the process must be transparent

58. The National Audit Office supports the opinion of experts that the implementation of changes must be transparent, i.e. well-founded and inclusive. State interference in the free market by granting subsidies and providing concessions must be justified and in general temporary and degressive. It is therefore necessary to set clear deadlines for the duration of the subsidies, to assess the impacts of the subsidy as well as its appropriateness. Information must also be provided on the size of the subsidies, the beneficiaries, the impacts, the effectiveness / efficiency, and the fulfilment of the objectives of the subsidy.[35]

The phasing out of environmentally harmful subsidies is part of implementing the European Green Deal

59. A separate report on environmentally harmful subsidies could be prepared, as several countries have done. However, it is important to see its connection with other activities and initiatives.

60. The identification and elimination of environmentally harmful subsidies will contribute to the implementation of the European Green Deal, which aims to make national budgets greener and provide the right price signals, i.e. that public investments, consumption and taxation should contribute to reaching the Green Deal's objectives and, at the same time, to eliminating the harmful subsidies. The European Green Deal

[34] A European Commission Project. Mapping objectives in the field of environmental taxation and budgetary reform: Environmentally Harmful Subsidies. Presentations at the seminar on 15 November 2021. The results of the project should be available from February 2022.

[35] See Germany's principles of granting subsidies: 27th Subsidy Report 2017–2020. Federal Ministry of Finance, 2019; Achtundzwanzigster Subventionsbericht (in German). 2021.

points to the need for far-reaching tax reforms in the member states that would eliminate subsidies for fossil fuels, shift the tax burden from labour to pollution, while taking into account social considerations.

61. Many countries have initiated reforms of subsidy-related, tax and fiscal policies, which see the abolition of environmentally harmful subsidies as an opportunity to free up public money and increase revenues (e.g. at the expense of lost revenue or by including fair prices and external costs in prices). It is also considered important to make more structural tax changes, including raising environmental taxes (on waste, pollution) and lowering labour taxes.

62. The NAO considers that in the case of state subsidies or tax exemptions, it is important to take into account the changing world and new developments, including the necessary changes in tax systems of the countries.[36] For example, fuel taxes (excise taxes) are a convenient way to get money into the state budget and, for example, to finance the construction and maintenance of roads, but the rapid electrification of the transport sector is rapidly reducing this revenue. Thus, vehicle taxation and tolls could be a more appropriate solution in terms of government revenues.[37]

63. The National Audit Office finds that making state budgets more environmentally friendly[38] and implementing the European Union's framework for facilitating sustainable investment[39] provide a tendency for environmental issues to be taken into account in all state subsidies and investments, and activities that have a negative impact on the environment are not acceptable. Therefore, subsidies that have a direct or indirect negative impact on the environment are not acceptable as well.

For your information

Germany has been compiling a report on state subsidies every two years since 1967, which includes the principles for granting subsidies, as well as an assessment of the effectiveness of the subsidies, including from the point of view of their sustainability.

See German subsidy policy guidelines (p. 6). E.g.:

- new subsidies must be temporary and degressive;
- all subsidies must be regularly evaluated for their purposefulness, effectiveness and transparency;
- preference should be given to targeted subsidies instead of tax exemptions s.

For your information

The **Finnish** state budget annually assesses environmentally harmful subsidies.

/signed digitally/

Ines Metsalu-Nurminen
Director of Audit at the Audit Department

[36] In Estonia, the Development Monitoring Centre has dealt with the tax system, see the research direction: "Future-proof tax structure"; materials of the conference "Does the Estonian tax system need to change?" of 19/11/2021. In Estonian.
[37] Kai Schlegelmilch's (German Federal Ministry of the Environment) presentation on 10/06/2021, "Successes and Challenges in the Reform of Environmentally Harmful Subsidies," pp. 21–45.
[38] Green Budgeting Practices in the EU. European Commission, Directorate-General for Economic and Financial Affairs, 2021.
[39] The EU's so-called "taxonomy regulation", which aims to define which economic activities are environmentally friendly and thus provides guidance to the private sector for sustainable investment.

Specification of the overview

Purpose of the overview

The purpose of the overview is to draw attention to the fact that the state supports activities (directly or indirectly) that may be incompatible with the achievement of environmental objectives and therefore public funding may not be used rationally and the state budget may be burdened. The overview is intended to draw the attention of public authorities, in particular the Ministry of Finance and the Ministry of the Environment, to the need to identify potentially incompatible economic measures, assess their impact (including economic and social ones), identify what has been an obstacle to abandoning them, and decide how to reduce and / or abandon their negative impact. At the same time, it is important to see the bigger picture, the combined effect of different measures and, if necessary, make major changes in cooperation with different agencies.

Scope and approach of the overview

The review describes whether and how environmentally harmful economic measures and their impact have been identified and assessed in Estonia, and what steps have been taken to modify or eliminate the incompatible measures. Based on international experience (through examples from internationally developed methodologies and other countries), it has been described how environmentally harmful economic measures could be identified, assessed, modified or disposed of.

The overview neither provides a list of all environmentally harmful economic measures of Estonia, nor calculates their total amount. More specifically, it does not address so-called "inaction", i.e. economic measures that could be put in place to achieve environmental objectives. Examples are from other countries, based on international experience.

The overview attempted to find answers to the following main questions:

- Based on the experience of other countries / institutions, what are the environmentally harmful economic measures of Estonia?
- What has been done in Estonia to identify and eliminate the environmentally harmful economic measures?

Numerous reports and materials related to the identification and assessment of environmentally harmful subsidies were examined during the overview, including materials from the European Commission, the European Environment Agency, Eurostat, the Institute for European Environmental Policy (IEEP), OECD, UN, IMF, World Bank, Nordic Council of Ministers etc.

Getting acquainted with the experience of other countries

In order to get acquainted with the experience of other countries, the NAO has taken a closer look at the activities of eight countries – the Netherlands, Ireland, Italy, France, Sweden, Germany, Slovenia and Finland – in identifying and assessing environmentally harmful subsidies. The selection of countries was based on the prior knowledge that these countries have prepared reports on environmentally harmful subsidies and taken steps to eliminate such subsidies. Publicly available materials were reviewed and the compilers of the reports were contacted directly.

Interviews

The following people were interviewed / contacted during the overview

Institution	Name
Ministry of Finance	Velda Buldas, Mari Lahtmets, Merliin Laos, Lauri Lelumees, Raoul Lättemäe, Priit Potisepp, Marek Uusküla
Ministry of the Environment	Imre Bányász, Külli Tammur, Aire Rihe
Ministry of Economic Affairs and Communications	Karel Lember, Kaupo Sempelson, Rein Vaks
Ministry of Rural Affairs	Marika Adler, Katrin Rannik
Ministry of Justice	Margit Juhkam, Uku-Mats Peedosk
Statistics Estonia	Grete Luukas, Kaia Oras
Tax and Customs Board	Peeter-Tanel Orro
Government Office	Henry Kattago, Merilin Möls, Triin Reisner
Eesti Pank (the central bank of Estonia)	Maris Leemets
AS Elering	Liis Kilk
Environmental Agency	Kristiina Ojamäe
Transport Administration	Mari Jüssi
Council of the Baltic Sea States, expert in environmental management	Valdur Lahtvee
Stockholm Environment Institute (Tallinn centre)	Helen Poltimäe
OÜ Roheplaan, expert in strategic environmental assessment	Riin Kutsar
OÜ Tepsli, energy efficiency expert	Siim Meeliste
Italian Ministry of Ecological Transition, coordinator of the catalogue of environmentally harmful and environmentally friendly subsidies; University of Rome, Professor of Environmental Global Governance; former President of the OECD Committee on Taxation and the Environment	Aldo Ravazzi Douvan
German Federal Ministry of the Environment, Deputy Head of the Working Group on Nature and Environmental Protection in Agriculture; Vice-President of Green Budget Germany and Green Budget Europe	Kai Schlegelmilch
European Environment Agency	Stefan Ulrich Speck
European Commission, Directorate-General for the Environment, Sustainable Development Goals, Green Finance and Economic Analysis Unit	Miroslava Janda
European Court of Auditors	Joanna Kokot
German Federal Environment Agency, Department of Economic and Social Environment, and Sustainable Consumption	Wolfgang Bretschneider
Statistics Ireland, Environment and Climate Department	Clare O'Hara
Irish Treasury, Fiscal Analysis Unit, Economic Department	Padraig O'Sullivan
National Audit Office of Slovenia	Lejla Marinko, Igor Vosnjak
Swedish Environmental Protection Agency, Environmental Economy Coordinator, Acting Head of Department, Sustainable Society Department	Johanna Farelius
Statistics Sweden	Ariun Byambakhorloo

Dutch NGO Inhoudelijk Medewerker Klimaat en Energie – Milieudefensie (Friends of the Earth, the Netherlands)	Sjoukje van Oosterhout
French Ministry of the Economy, Finance and the Recovery	Alban Fauchon, Sania Matulic
National Audit Office of France	Isabelle Vincent
Finnish Ministry of the Environment	Leena Ylä-Mononen
National Audit Office of Finland	Tuula Varis
Consulting companies VVA and RPA Europe S.R.L. – performers of the survey commissioned by the European Commission "Mapping objectives in the field of environmental taxation and budgetary reform: Environmentally Harmful Subsidies (EHS)"	Lucas Porsch, Magdalena Klebba, Marco Camboni

Focus group

During the preparation of the overview, a focus group discussion was held to listen to the views of the participants, which are the main obstacles to identifying, modifying and eliminating the environmentally harmful subsidies in Estonia, to suggest who should be responsible and involved in Estonia, and what steps should be taken to move forward. The discussion took place in Zoom and respective minutes were drawn up.

Participants: The Ministry of Finance, the Ministry of the Environment, the Ministry of Economic Affairs and Communications, the Ministry of Rural Affairs, the Government Office, Statistics Estonia, and experts in the field Helen Poltimäe (Stockholm Environment Institute Tallinn centre) and Valdur Lahtvee (Council of the Baltic Sea States), National Audit Office of Estonia.

Date of completion of the overview:

December 2021

The overview team:

The overview team included Airi Andresson, Audit Manager of the Audit Department of the National Audit Office, Viire Viss, Senior Auditor, and Alar Jürgenson, Auditor.

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Electronic copy (pdf) of the overview is available on the website www.riigikontroll.ee.

Summary of the overview is also available in English.

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Previous audits by the National Audit Office in the field of environmental economic measures

06/10/2008 – **Impact of Pollution Charges on Reducing Environmental Pollution**

All reports are available on the website of the National Audit Office at www.riigikontroll.ee

Annex A. Methodology for the assessment of environmentally harmful subsidies

In most cases, the OECD's methodology (adapted to needs), which consists of three so-called tools, is used to identify and assess environmentally harmful subsidies.[40]

1) A quick overview (so-called *quick scan*) assists in the development of policy measures to identify those subsidies modifying which could benefit both the economy and the environment. It seeks to answer two main questions:
   - Does the subsidy fulfil its purpose of generating income for the desired target group?
   - Can the subsidy have a negative impact on the environment?

The method does not seek to establish a link between the nature and amount of the subsidy and the actual environmental impact. Therefore, three additional conditions are assessed: (a) the effect of the subsidy on the volume and structure of output in the economy; (b) the mitigating effects of other environmental policy measures; and (c) the capacity of the affected environment to cope with the resulting effects (in the case of local effects).

2) A checklist to assess whether the elimination of the subsidy would help to improve the environmental position. The checklist is based on three questions in principle:
   - What restrictions on production, pollution and resource use result from legislation, standards and similar environmental policy measures? If the policy measures can reduce the environmental impact of the subsidy, there is probably no point in eliminating the measure.
   - Which technologies and products could replace previously subsidised technologies and products? If the alternative solution maintains or increases the environmental impact, the removal of the subsidy is not sufficiently justified in terms of environmental impact.
   - How could the subsidised sector react to changes in conditions (e.g. production quantities, use of natural resources, price elasticity, market share)?
3) An integrated assessment framework that seeks to assess the costs and benefits, the winners and losers, the expected and unexpected effects of subsidies on the environment, the economy and the social sphere, and the compromise alternatives between them.

Types of economic measures (subsidies)

On-budget subsidies

- Direct financial transfer of funds / means to producers and consumers (e.g. capital support, income support, low-interest loans), i.e. a targeted subsidy;
- potential direct transfers of money or liabilities (e.g. liability coverage in the event of an accident, loan guarantees);
- provision of general infrastructure (e.g. motorways);
- below-cost service charges for infrastructure and services provided by the government (which do not cover the costs associated with their construction / provision of the service), such as the construction of a road for a specific producer;
- support for research and development;
- transfer of the activities above-mentioned by the government to others.

[40] See more specifically "Environmentally Harmful Subsidies (EHS):Identification and Assessment (2009)". IEEP, 2009.

Off-budget subsidies

- Abandoning revenues normally received (e.g. tax credits / benefits) or their non-collection by the government;
- tax benefits (exemptions, compensations, credit, tax rate rebates, tax deferrals), refunds;
- debt relief (abandoning debt collection, rescheduling debts);
- guaranteeing the market price (e.g. fixed prices, discounts and bonuses);
- regulatory supporting mechanisms (e.g. requirements for energy diversification);
- income or price subsidy (e.g. production quotas, preferential tariffs); indirect income due to a lack of full cost;
- preferential market access (e.g. preferential construction, environmental permits and environment permits, control of access to resources, other restrictions on market access);
- interest rates below the market rate;
- payment of rent / use below market price for the use of resources;
- non-accounting for external costs of activities and use of resources, indirect income from this;
- optional exemptions from government standards / requirements;
- implementation of accelerated depreciation / amortisation.

Quantification

In principle, it should be possible to put all environmentally harmful subsidies in monetary terms, i.e. how much money the state has given in various forms, either directly or indirectly. It is relatively easy to find in the case of in-budget targeted subsidies and tax exemptions, being more complex in the case of off-budget and indirect subsidies. For example, the loss of income method, the price cap method, resource lease methods (cost recovery method and below cost method), social marginal cost method, etc. are used for quantification.[41] In the Italian catalogue of environmental subsidies, if the measures are quantified, the number obtained is accurate (on the budget line) or estimated.

Guidelines for the identification and assessment of environmentally harmful subsidies

- Environmentally Harmful Subsidies (EHS): Identification and Assessment. IEEP, 2009.
- Potentially environmentally harmful subsidies – definitions and approaches for measurement. European Commission, Eurostat, 2019.
- Measuring Fossil Fuel Subsidies in the Context of the Sustainable Development Goals. UNEP, 2019.
- The BIOFIN Workbook 2018: Finance for Nature. The Biodiversity Finance Initiative. United Nations Development Programme: New York, 2018, Chapter 3, Section 3.4D, "Supportive and Harmful Subsidies", pp. 61–63.
- Toolkit to identify and reform incentives harmful to biodiversity. IEEP, 2017.

[41] See, e.g. „The Use of Economic Instruments In Nordic Environmental Policy 2010–2013". Nordic Council of Ministers, 2014; "Environmentally Harmful Subsidies (EHS): Identification and Assessment". IEEP, 2009.

Annex B. Experience of other countries in identifying and assessing environmentally harmful subsidies

The National Audit Office examined the activities of eight countries – the Netherlands, Ireland, Italy, France, Sweden, Germany, Slovenia and Finland – in mapping and assessing environmentally harmful economic measures.

Country	Basis for identifying environmentally harmful subsidies	Report format / regularity	Responsible / compiler	Areas / methodological specifics	Amount, € billion (y) *	Sources
The Netherlands	The work in 2020 was prompted by the G20's decision to abolish inefficient fossil fuel subsidies.	One-time reports During the preparation of the budget, there is a regular assessment of tax exemptions and subsidies	Dutch Environmental Assessment Agency (2011) (compiler) The Ministry of Finance and the Ministry of Economic Affairs and Climate Policy (2020) (commissioner)	Transport, energy, agriculture (2011) The 2020 report reviewed only fossil fuel subsidies. The G20 countries are conducting peer reviews to identify environmentally harmful subsidies.	5–10 (2011) 4,5 (2020)	Netherlands Environmental Assessment Agency (2011). PBL Note Environmentally harmful subsidies The Netherlands' Effort to Phase Out and Rationalise its Fossil-Fuel Subsidies. OECD/IEA, 2020
Ireland	National (climate change) mitigation plan Government's Climate Action Plan 2019	Regular statistical report Individual stand-alone reports	Central Statistics Office of Ireland (based on Eurostat methodology) The Ministry of Finance and the Environmental Agency have also analysed environmentally harmful subsidies	Key areas: fossil fuels, agriculture and food, transport, fishing industry and aquaculture. Divided into direct and indirect (tax expense) subsidies. In recent years, the focus has been more on subsidies for fossil fuels.	4.1 (2016) 2.4 (2019, fossil fuel subsidies only, FSS)	Fossil Fuel and Similar Subsidies 2012–2016. Central Statistics Office (CSO), 2017; Fossil Fuel Subsidies 2000–2019 (incl. methodology). CSO, 2021 The environmental impact of fiscal instruments. Economic and Social Research Institute, Environmental Protection Agency, 2018
Italy	Green Economy and Resource Efficiency Act	Regular (annual) special report (so-called catalogue of measures)	Italian Ministry of Ecological Transition (former Ministry of the Environment, Land and Maritime Affairs)	Key areas: agriculture, energy, transport, other, VAT exemptions. A comprehensive so-called ID card will be prepared for each measure. The catalogue of measures contains both environmentally friendly and harmful measures with unclear effects. By type, direct subsidies and tax exemptions are mainly considered.	21,6 (2021)	Report on environmentally friendly and environmentally harmful subsidies 2019–2020, Italian Ministry of Ecological Transition, 2021 (in Italian, summary in English, pp. 33–44), Italian catalogue of environmentally friendly subsidies and environmentally harmful subsidies 2016 (in English). Italian Ministry of Environment, Land and Sea, 2016;
France	National Biodiversity Strategy The State Budget Act requires the submission of a budget annex that assesses the	One-time report on environmentally harmful subsidies (2011) The budget evaluation process (green budgeting) will	Independent Research Institute France Stratégie (2011) (compiler) The Ministry of the Economy, Finance and the Recovery (Ministére de l'Economie des Finances et de la Relance) is	In the green budgeting process, state budget expenditures are assessed on three scales: environmentally friendly, neutral / unknown and unfavourable. Impacts are assessed against six environmental objectives / factors: climate change prevention, adaptation, water use,	10 (2019)* (* only direct expenditures in the state budget)	Public Subsidies Harmful to Biodiversity. France Stratégie, 2011 Report on the Environmental Impact of the Central Government Budget. Sustainable Development Agency (CGDD), 2020

	environmental impact of the budget.	take place from 2019	responsible for the green budgeting process.	the circular economy, pollution reduction, and the protection of species diversity.		
Sweden	They refer to the European Roadmap to Resource Efficiency (2011) and the EU's Green Agreement.	One-time reports	Swedish Environmental Protection Agency	The 2017 survey looks at potentially harmful subsidies in three fields: energy, transport and agriculture, and fishing industry. Both tax exemptions and direct subsidies are covered. The work of 2018 deals with subsidies in the field of energy and transport, and special attention is paid to fossil fuels. Only tax exemptions were considered.	9,8 (2017) 3 (2018)	Environmental taxes and environmentally harmful subsidies. Statistics Sweden, 2000 Potentiellt miljöskadliga subventioner (in Swedish). Swedish Environmental Protection Agency, 2017 Abolition of climate-damaging subsidies (in Swedish). Naturskyddsföreningen, 2018
Germany	They refer to international obligations.	Regular special report	German Federal Environment Agency	Key areas: energy production and consumption, transport, construction and residential development, agriculture, forestry, and fishing industry Each identified measure (primary or secondary environmental impact) is assessed in the following areas: climate, air, water, soil, biodiversity and landscape, health and resources.	65* (2018) (* The subsidies of the European Maritime, Fisheries and Aquaculture Fund (EMFAF) were not quantified)	Environmentally Harmful Subsidies In Germany 2014 (in English). German Environmental Agency, 2014 Environmentally harmful subsidies in Germany (in German). German Environment Agency, 2021 In 2019, the German Federal Agency for Nature Conservation prepared a separate report on economic measures affecting biodiversity (in German).
Slovenia	Environmental Protection Act (obligation to report on environmental indicators every two years, including the indicator of environmentally harmful subsidies).	One-time reports (regular overview of environmental indicators)	VVO (Umanotera); Slovenian Environment Agency	Key areas: energy, transport, industry / construction, agriculture / fishing industry The indicator of environmentally harmful subsidies has been added to the national list of environmental indicators.	0,5 (2011)	Climate mirror 2020: Green fiscal reform (in Slovenian). Umanotera, 2020 Green Budget Reform in Slovenia: responding to the crisis with a sustainable visiona (in English). Umanotera, 2013 Slovenian Environment Agency (ARSO Okolje): Incentives that work against the goal of reducing GHG emissions (2018); Reducing environmentally harmful subsidies (2017)
Finland	The action programme by Government of Finland dated 10/12/2019 refers to the need to reform energy taxation.	Regular overview in the explanatory memorandum to the state budget One-time reports	Ministry of Finance (the state budget overview), Ministry of the Environment, Ministry of Agriculture and Forestry	In the work of 2013, energy, transport, agriculture, business as well as forestry had been examined. The explanatory memorandum to the 2020 state budget only looked at the tax exemptions in the field of energy and transport.	3,5 (2019) 3,2 (2020)	On environmentally harmful subsidies in the field of activity of the Ministry of Agriculture and Forestry (in Finnish). 2012 Environmentally harmful subsidies (in Finnish). Finnish Ministry of the Environment, 2013 Subsidies harmful to biodiversity (in Finnish). 2015 Explanatory memorandum to the 2020 state budget (in Finnish)

* The amounts of environmentally harmful subsidies are taken from the reports referred to in the last column of the table.

Annex C. ID card for an environmentally harmful subsidy (example)

Example of information collected on environmentally harmful subsidy – description of the subsidy (p. 1), assessment of the impacts and reformability of the measure (p. 2). Compiled by the National Audit Office based on the experience of other countries and international methodology.[42]

P. 1				
Sector *Energy, transport, agriculture, water management, waste / etc*	**Energy**			
Name of the subsidy	Subsidy for electricity generated in an efficient cogeneration process			
Reference to the legislation	Electricity Market Act (EMA), § 59 (1) 3) and (4); § 59 (2) (2)			
EU's co-financing *No / yes (%)*	No			
Year of implementation	2010			
Project year	Valid (the subsidy has been paid for 12 years from the start of production) EMA, § 108 (1)			
Purpose of the subsidy	To produce electricity from renewable energy sources 40% of Estonia's total final electricity consumption in 2030. EMA, § 59[4] (1)			
Type of subsidy *Targeted subsidy, tax exemption, other*	Direct subsidy			
Rate	Ordinary	X	Reduced	
Level of reformability *Regional, national, EU, global*	National			
Distribution of subsidy *on-budget, off-budget* *Conditionality: no conditions for consumption, production* *Place of impact: input, output, income, profit, demand*	The subsidy measure is not reflected in the state budget. The support is paid from the renewable energy fee collected from the consumer. The subsidy is paid for electricity generation. Conditionality – in production			
Environmental impact	Although electricity generation in an efficient cogeneration process is more energy efficient than electricity from conventional or inefficient cogeneration, the subsidy for electricity from efficient cogeneration is at least partly harmful to the environment, as it also supports the production of electricity from fossil fuels. For example, the subsidy can be applied for electricity produced from waste, natural gas, oil shale, shale oil and oil shale flue gas. The use of fossil fuels is harmful to the environment because it emits carbon dioxide, which has been stored in the earth's crust. Carbon dioxide is a greenhouse gas that causes global warming. The suitability of the support to meet the set goal also raises questions. Electricity produced from fossil fuels does not contribute to increasing the share of renewable energy.			
Monetary value (€)	€3.6 million [43] (2021), incl. ▪ €2.7 million for the production of electricity from municipal waste; ▪ €0.8 million the production of electricity from natural gas; ▪ fuel used in equipment of less than 10 MW (oil shale, oil shale flue gas, shale oil, natural gas) amounts to €0.1 million.			

[42] Sources: Catalogo dei sussidi ambientalmente dannosi e dei sussidi ambientalmente favorevoli 2018). Italian Ministry of the Environment, 2019; Environmentally Harmful Subsidies (EHS): Identification and Assessment. IEEP, 2009.

[43] Data of the transmission system operator Elering.

P. 2		
Indicator	**Assessment by the NAO**	**Description**
Objective and design		
What is the original purpose of the instrument? Is it valid?	The purpose of the subsidy is partially valid. The impact on increasing renewable energy production is small.	The objective is to increase renewable energy production and energy efficiency.
The main problems in introducing the instrument (in design)?	The subsidy motivates to increase the use of fossil fuels.	There is no information in the explanatory memorandum to the draft.[44]
Main social impact		
Who is the subsidy meant for? Will it reach them?	It needs to be clarified during the impact assessment.	There is no information in the explanatory memorandum to the draft.
What are the unpredictable social impacts?	It needs to be clarified during the impact assessment.	There is no information in the explanatory memorandum to the draft.
Impact on the environment		
What are the nature and extent of the negative environmental impact, including on the climate?	It needs to be clarified during the impact assessment.	There is no information in the explanatory memorandum to the draft.
Economic impact (on the budget, trade, competition)		
What are the expected impacts on the economy?	It needs to be clarified during the impact assessment.	There is no information in the explanatory memorandum to the draft.
What are the unexpected impacts on the economy?	It needs to be clarified during the impact assessment.	There is no information in the explanatory memorandum to the draft.
Instrument reform scenarios		
Is modification / elimination of the subsidy good for the environment? To what extent?	☺	
Does modification/elimination of the subsidy benefit the social sphere, or the economy? To what extent?	😐	The use of fossil fuels and the associated negative environmental impacts are to some extent reduced. The impact of the abolition of the subsidy on the social and economic spheres must be explained in the impact assessment.
Are there alternative policies and / or technologies that would help to achieve the same goal objective in a more environmentally friendly way?	☺	Fossil fuels can be technologically replaced by renewable fuels.
Are there possible compensatory measures to reduce stakeholders' opposition to the reform of the instrument?	☺	There is a fixed period introduced for the subsidy.
Were there attempts to modify / abolish the subsidy?	☹	

Legend:

Not a problem – there is no need for reform.	
Slightly problematic – the reform would have a positive overall effect on the problem.	
Problematic – the reform would make a significant contribution to solving the problem.	
Very problematic – there is no need for the reform.	

☺	Positive outcome of the reform
☹	Negative outcome of the reform
😐	The outcome of the reform is unclear

[44] The draft and explanatory memorandum to the Electricity Market Act 1051 SE, 2006.

Annex D. Environmentally harmful subsidies of Estonia (selected examples)

The National Audit Office has compiled a selective list of possible economic measures that are environmentally harmful in Estonia. The list is based on environmentally harmful subsidies identified by other countries and their analogues in Estonia.

Economic measure	Type	Country where the measure is identified	Explanation	Monetary value*
Energy sector				
The subsidy for fossil fuel electricity from efficient cogeneration process	Direct subsidy	Finland	The subsidy for electricity generated in the efficient cogeneration process is paid for, among other things, electricity produced from fossil fuels (natural gas, oil shale flue gas).	Annual amount of the subsidy €3.6 million (2020)
Tax exemptions for large energy consumers (electricity, natural gas)	Tax exemption	Many EU countries (e.g. the Netherlands, Finland, Sweden, Germany)	Large gas consumers have a lower excise tax rate on gas. It is planned to apply a lower fee for renewable energy to large electricity consumers.	Annual subsidy approx. €2 million. The planned reduction of the renewable energy fee for large electricity consumers is approx. €20 million per year.
Free allocation of CO_2 emission allowances	Direct subsidy	All EU countries	Free emission allowances were allocated: a) for the modernisation of electricity generation; b) plants at risk of carbon leakage in the EU Emissions Trading System (EU ETS) (electricity generation, shale oil production, large industrial plants). The EU ETS includes energy-intensive industrial enterprises and power plants. In Estonia, the system includes about 50 enterprises that belong to the following sectors: energy production, including coke ovens and refining of petroleum products, processing of mineral materials and other activities – pulp and paper production. Free allocation is available to enterprises that are at risk of competition from third countries where enterprises are not subject to the same stringent requirements, and higher taxes would jeopardise the relocation of plants to countries with lower environmental standards, so emissions would not reduce.	In 2021, free emission allowances worth approx. €123 million were allocated to plants using oil shale (free allowances allocated to installations in the EU ETS).* In 2013–2021, free-of-charge CO_2 emission allowances worth approx. €661 million were allocated to plants using oil shale, incl. ▪ approx. €314 million for the modernisation of electricity generation; ▪ Approx. €347 million for ETS plants. The market value of allowances for CO_2 emissions varies over time. The annual average CO_2 unit price has been calculated and multiplied by the number of free units allocated that year.
Investments for the construction of fossil fuel plants	Direct subsidy	Many EU countries	In 2020, Eesti Energia's (EE) equity was increased by €125 million to build a new shale oil plant.	The value of the financial transaction is €125 million (2020).

Economic measure	Type	Country where the measure is identified	Explanation	Monetary value*
			The decision of 2010 increased the share capital of EE in order to build, among other things, a new power plant using oil shale, a shale oil plant.	The value of the financial transaction in 2010 was €150 million.
Fossil fuel research and development subsidies	Direct subsidy	Ireland	The subsidy for research and development activities in the extraction and use of oil shale. The subsidy has been given for applied research related to oil shale, for example: Approximately €2.4 million from the RITA (Support for sectoral R&D) programme; €2.3 million from the smart specialisation programme; €200,000 from the EIC (Environmental Investment Centre) environmental programme.	The subsidies granted in the period 2016–2021 amounted to approx. €5 million.
Electricity used for chemical reduction and in electrolytic, metallurgical and mineralogical processes	Tax exemption	Many EU countries	Electricity used for chemical reduction and in electrolytic and metallurgical processes is exempt from excise duty.	€0.1 million (forecast for 2021)
Electricity and fuel used to generate electricity, and electricity used to maintain electricity generation capacity	Tax exemption	Many EU countries	Electricity and fuel used to generate electricity, and electricity used to maintain electricity generation capacity are exempt from excise tax.	€0.9 million (forecast for 2021)
Supporting the use of fossil fuels	Direct subsidy, tax exemption	Slovenia	The subsidy for the production of electricity from wood in Narva power plants amounts to the extent of 500 GWh per year. Wood is burned together with oil shale and oil shale flue gas. In 2016, the oil shale sector was supported by various measures: reduction of the extraction charge from €1.58 per hour to €0.275 per hour, and abolition of higher rates of ambient air pollution charges.	The subsidy for the production of wood electricity in Narva power plants amounts to approx. €7.5 million (forecast for 2022) The subsidy to the oil shale sector through changes in extraction charge rates amounted to approx. €78 million (Q3 2015 until 2021). The monetary value has been calculated on the basis of the difference between the charge rates valid in the mentioned period and the charge rate valid before July 2016 and the amount of extracted oil shale. The NAO has not calculated the monetary value of the abolition of higher rates of ambient air pollution charges.
Transport				
Tax exemption for aviation fuel	Tax exemption	Many countries of the world	Aviation fuel used on international flights is exempt from VAT and excise tax.	There is no information on the amount of tax exemption.

Economic measure	Type	Country where the measure is identified	Explanation	Monetary value*
Lower energy tax rate on diesel compared to petrol	Tax exemption	Nordic countries, the Netherlands, Italy	Taking into account the energy content of fuels, the excise tax rate on diesel is lower than on petrol.	▪ €145 million per year in case an excise tax rate rebate on diesel fuel (reduced rate of €372 / 1000 L); ▪ €67 million per year at the standard excise tax rate on diesel fuel (€493 / 1000 L). The calculations are based on the excise tax rate on petrol. It is based on the minimum fuel taxation rates and lower calorific values for fuels (33.1 GJ / 1000 L unleaded petrol and 35 GJ / 1000 L diesel) set out in the European Commission's proposal to amend the Fuel Taxation Directive. The quantities of fuel are based on the data of the Tax and Customs Board for 2020.
Lower tax rate for diesel carrying a fiscal marker	Tax exemption	Many EU countries	Pursuant to the Energy Taxation Directive 2003/96 and Regulation (EU) No. 651/2014 in the field of state aid, the use of diesel fuel at a lower excise tax rate is permitted in certain fields of activity. Estonia has reduced the fields of activity allowed by the directive. The use of specific-purpose diesel in agriculture and commercial fishing is still allowed. Temporarily also in the oil shale sector (01/05/2020–30/04/2023).	In Estonia, the tax expenditure on specific-purpose diesel fuel (i.e. revenue not received in the state budget) is €31 million (2021), incl. ▪ €25.6 million in agriculture; ▪ €5.1 million in the oil shale sector; ▪ €1.2 million in commercial fishing.
Discount on the use of company cars	Tax exemption	Many EU countries (e.g. the Netherlands, Finland)	Various benefits are applied when using company cars. For example, refunding a VAT when buying a company car. Compensating travel expenses to employees.	There is no information on the amount of the subsidy.
Partial inclusion of infrastructure costs in tariffs and revenues	Other	The Netherlands	Partial inclusion of public infrastructure costs in public transport prices.	There is no information on the amount of the subsidy.
Exemption of fishermen from fuel excise duty	Tax exemption	Many EU countries	Specific-purpose diesel fuel used for fishing industry in Estonia on a fishing vessel or used for regular maintenance on that vessel in preparation for the subsequent fishing is exempt from excise tax.	€1.2 million (forecast for 2021)
Fuel used in mineralogical processes	Tax exemption	Many EU countries	Fuel and electricity used in mineralogical processes are exempt from excise tax.	€1.18 million (forecast for 2021)
Natural gas used for the operation of the natural gas network	Tax exemption	Many EU countries	Natural gas used to operate the natural gas network is exempt from excise tax.	€0.03 million (forecast for 2021)

Economic measure	Type	Country where the measure is identified	Explanation	Monetary value*
Agriculture, fishing industry, forestry				
EU agricultural subsidies	Direct subsidies	All EU countries (from a sample of countries, e.g. Italy, Ireland, Germany)	Not all agricultural subsidies are environmentally harmful, but the EU's direct and transitional CAP subsidies (Pillar I) and rural development policy subsidies (Pillar II), which intensify agricultural activities and have a negative impact on the environment, such as subsidies for the livestock sector and its products, have been identified as especially incompatible with environmental objectives. Direct subsidies are income subsidies (usually linked to a unit of area).	The NAO has not calculated the exact monetary value of the subsidy.
Diesel carrying a fiscal marker for agriculture and fishing industry (same measure for the transport sector subsidies)	Tax exemption	Many EU countries	Pursuant to the Energy Taxation Directive 2003/96 and Regulation (EU) No. 651/2014 in the field of state aid, the use of diesel fuel at a lower excise tax rate is permitted in certain fields of activity. Estonia has reduced the fields of activity allowed by the directive. The use of specific-purpose diesel in agriculture and commercial fishing is still allowed.	In Estonia, the forecast of tax expenditure on the specific-purpose diesel fuel (2021) is: ▪ €25.6 million in agriculture; ▪ €1.2 million in commercial fishing.
More favourable rate of land tax on arable land and natural grassland used for the production of agricultural products	Tax exemption	The Netherlands	The tax rate for arable land used for agriculture (0,1–2%) had a rebate compared to the standard tax rate. Its exact size depends on the decision of the municipalities.	There is no information on the exact amount of the subsidy.
Subsidies of the fisheries fund	Direct subsidy	Germany; Sweden, Finland, Denmark	Subsidies that intensify fishing and pollute the environment are considered harmful to the environment.	The NAO has not calculated the exact monetary value of the subsidy.
The subsidy for reforestation	Direct subsidy	Finland	The subsidy for afforestation. Indirectly, it intensifies deforestation.	The subsidy for reforestation – €0.6 million (2021)
Payment of the Natura forest subsidy	Direct subsidy	Many EU countries	The Natura forest subsidy has been paid for felled areas. The purpose of the Natura forest subsidy is to ensure the good condition of conservation values and to compensate the owners for the loss of income. Income has been received from deforestation and forest habitats have also been changed. Paying the Natura subsidy to such an area is inefficient.	Approx. €4.4 million of Natura forest subsidy is paid annually. It is not known how much of the subsidised forest areas have actually been deforested.

Economic measure	Type	Country where the measure is identified	Explanation	Monetary value*
Other fields				
Insufficient implementation of producer responsibility system (e.g. packaging, tyres, other products of concern), including the so-called packaging tax for the EU	Other	The Nordic countries	Tax on plastic packaging waste to the EU because Estonia did not meet the target for recycling plastic packaging.	€22 million in 2021
The renewable energy subsidy for production of energy from waste	Direct subsidy	Many EU countries	The renewable energy subsidy to Enefit Green for electricity produced from the biodegradable part of the waste incinerated in the waste incineration unit of the Iru power plant. The subsidy for efficient cogeneration of electricity and heat produced from the non-biodegradable fraction of waste.	The renewable energy subsidy: €2.7 million in 2021 The subsidy for efficient cogeneration: €2.7 million in 2021

* Monetary value is based on publicly available information or an inquiry. Monetary value has not been determined if it required more detailed data and analysis.

Source: National Audit Office of Estonia