EUROPEAN
COMMISSION

Brussels, 7.7.2025
SWD(2025) 307 final

COMMISSION STAFF WORKING DOCUMENT

2025 Environmental Implementation Review

Country Report - ESTONIA

Accompanying the document

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

2025 Environmental Implementation Review for prosperity and security

{COM(2025) 420 final} - {SWD(2025) 300 final} - {SWD(2025) 301 final} - {SWD(2025) 302 final} - {SWD(2025) 303 final} - {SWD(2025) 304 final} - {SWD(2025) 305 final} - {SWD(2025) 306 final} - {SWD(2025) 308 final} - {SWD(2025) 309 final} - {SWD(2025) 310 final} - {SWD(2025) 311 final} - {SWD(2025) 312 final} - {SWD(2025) 313 final} - {SWD(2025) 314 final} - {SWD(2025) 315 final} - {SWD(2025) 316 final} - {SWD(2025) 317 final} - {SWD(2025) 318 final} - {SWD(2025) 319 final} - {SWD(2025) 320 final} - {SWD(2025) 321 final} - {SWD(2025) 322 final} - {SWD(2025) 323 final} - {SWD(2025) 324 final} - {SWD(2025) 325 final} - {SWD(2025) 326 final}

Contents

Executive summary

In May 2016, the European Commission launched the Environmental Implementation Review (EIR), a regular reporting tool based on analysis, dialogue and collaboration with EU Member States to improve the implementation of existing EU environmental policy and legislation ([1]). Following previous cycles in 2017, 2019 and 2022, this report assesses the progress made while describing the main outstanding challenges and opportunities regarding environmental legal implementation in Estonia. The purpose of this report is to provide information on the implementation performance and highlight the most effective ways to address the implementation gaps that impact human health and the environment and hamper the economic development and competitiveness of the country. The report relies on detailed sectoral implementation reports collected or issued by the Commission under specific environmental legislation.

The main challenges set out below have been selected from Part I of this report, 'Thematic areas', taking into consideration factors such as the gravity of the environmental implementation issue in light of the impact on the quality of life of the citizens, the distance to target and financial implications.

Estonia is now on track to decouple municipal waste generation from economic growth. It has made slow but steady progress over the past decade in stepping up its **recycling rate**. Although Estonia is one of the Member States with the lowest municipal waste generation per capita, concerns have been raised about the lack of a unified data management system at the local level, and the quality of the data provided. Estonia diverted municipal waste from landfill; the incineration rate reached 42 % and the landfill rate reduced to 13 % in 2022, which is close to the 2035 target. **Resource productivity** in Estonia is dragged down by resource-intensive industries. In 2023, Estonia generated EUR 0.63 per kg of material against the EU average of EUR 2.22.

On **air pollution**, although the emissions of key air pollutants have decreased significantly over the last few years, Estonia should continue to address emissions to air from usage of fossil fuels and other emission sources by replacing them with cleaner solutions.

The Urban Wastewater Treatment Directive aims to protect human health and the environment from the effects of untreated **urban waste water**. An infringement proceeding has been open against Estonia since February 2024 for non-compliance with the requirements of the directive in respect of discharges of industrial waste water into urban wastewater treatment plants. Finally, measures are needed to address deteriorating chemical water quality and enhance resilience.

Estonia's overall **environmental investment gap** is EUR 0.8 billion per year, representing around 2.18 % of the national GDP, more than the EU average (0.77 %). The highest share is for biodiversity and ecosystems. Thus, it is necessary to ensure an increased level of financing and further exploit opportunities in private financing to close the investment gap.

On **climate change**, there is some progress in promoting zero-emission road transport solutions and in renovating building stock. Estonia has one out of the three regions identified as hotspots of climate risks that are most affected by climate change: low-lying coastal regions. Estonia is vulnerable to the impacts of climate change, such as rises in temperature, rainfall and sea level, and extreme weather phenomena accompanied by coastal and inland floods, wildfires and new pathogens.

On **environmental governance**, Estonia provides an example of good joint application of the Environmental Liability Directive and the Industrial Emissions Directive in cases where environmental damage is caused by an operator acting under an Industrial Emissions Directive permit. Nevertheless, Estonia needs to ensure legal standing and better access to courts for the public concerned.

([1]) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Delivering the benefits of EU environmental policies through a regular environmental implementation review, COM(2016) 316 final of 27 May 2016, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2016%3A316%3AFIN.

Part I: Thematic areas

1. Circular economy and waste management

Transitioning to a circular economy

Advancing the transition to a circular economy in the EU will reduce the environmental and climate impact of our industrial systems by reducing input materials, keeping products and materials in the loop for longer and reducing waste generation, thus decoupling economic growth from resource consumption. A circular economy has considerable potential to increase competitiveness and job creation and will also promote innovation and provide access to new markets. With the 2020 circular economy action plan (CEAP) ([2]) measures either in place or legislatively advanced, Member States will now have to focus on a swift and effective implementation.

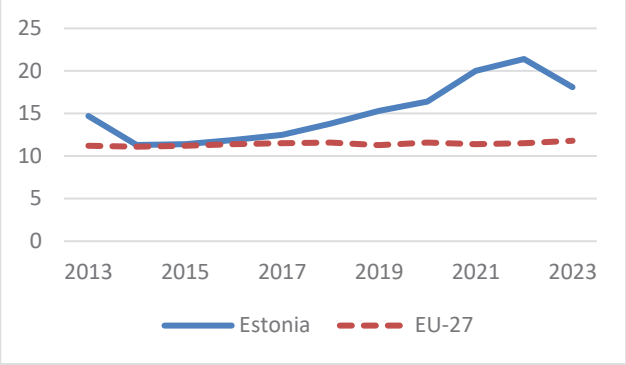
The 2020 CEAP launched the legislative process for a set of initiatives that will now have to be implemented by national governments across the EU. These initiatives were all introduced following a holistic life-cycle approach, with measures addressing the different stages of a product's life cycle, from design through use to end of life.

In the CEAP, the EU sets as its overarching objective the doubling of its circular material use rate (CMUR) by 2030.

The CMUR is a measure of one aspect of circularity: the share of the total amount of material used in the economy that is accounted for by recycled waste. A higher CMUR value means that more secondary materials were used as a substitute for raw materials, thus reducing the environmental impacts of extracting primary material.

Estonia's CMUR has been increasing since 2014 and reached 21.4 % in 2022, with a decrease in 2023 to 18.1 % but still remaining above the EU average of 11.8 % (Figure 1).

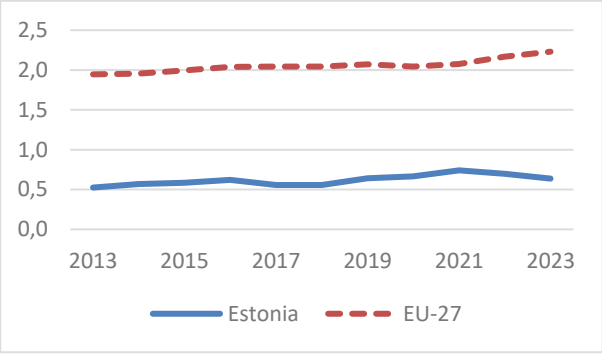
Figure 1: CMUR (%), 2013–2023



Source: Eurostat, 'Circular material use rate', env_ac_cur, last updated 13 November 2024, accessed 10 December 2024, https://ec.europa.eu/eurostat/databrowser/product/view/env_ac_cur.

Resource productivity measures the total amount of materials directly used by an economy in relation to gross domestic product (GDP). Improving resource productivity can help to minimise negative impacts on the environment and reduce dependency on volatile raw material markets. In 2023, Estonia generated EUR 0.63 per kg of material against the EU average of EUR 2.23 (Figure 2).

Figure 2: Resource productivity (EUR/kg), 2013–2023



NB: The unit of measurement used is EUR/kg chain-linked volume (2015). Chain-linked volumes focus on changes on quantities and prices of commodities in previous years, taking into account inflation, and are indexed to the nearest appropriate year, in this case, 2015.

Source: Eurostat, 'Resource productivity', env_ac_rp, last updated 7 August 2024, accessed 10 December 2024, https://ec.europa.eu/eurostat/databrowser/product/view/env_ac_rp.

Policies and measures

In parallel with European initiatives under the CEAP, Member States are encouraged to adopt and implement

([2]) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – A new circular economy action plan for a cleaner and more competitive Europe, COM(2020) 98 final of 11 March 2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A98%3AFIN.

circular strategies at the national, regional and city levels. These should be tailored to each national and local reality, to harness the proximity economy's ([3]) potential, while following the principles of a holistic whole-value-chain approach.

Since the launch of the online European Circular Economy Stakeholder Platform in 2017 ([4]) national, regional and local authorities have used the platform to share their strategies, roadmaps and good practices, for example alternative business models and innovative technologies.

In 2023, Estonia adopted a white paper on circular economy ([5]) outlining the broad objectives and framework for the transition to a circular economy. It identifies strategic actions centred around six development priorities:

(i) resources are used responsibly and based on demand, with resource use being considered properly and waste production minimised;
(ii) the business models of Estonian companies are forward-looking and circular;
(iii) the necessary know-how and expertise for implementing circular economy is ensured and cooperation between stakeholders and sectors functions well;
(iv) functional digital solutions are created to support the circular economy and high-quality data for monitoring the situation are ensured;
(v) the circular economy is well coordinated and there is a supportive legal and economic environment;
(vi) environmentally conscious thinking and environmentally friendly behaviour are mainstreamed in society.

In 2023, Estonia also published an action plan for circular economy ([6]) under the recovery and resilience plan (RRP) ([7]). The action plan groups together 10 key actions for the transition from across the policy landscape. Other circular-economy-related activities in the plan include support for the digitalisation of the economy and for provision of the right skills to workers, and the adoption of resource-efficient green technologies.

Between 2021 and 2023, a project ([8]) aiming to contribute to the promotion of circular economy through the development of circular economy roadmaps for all municipalities in Estonia was carried out. As a result, 79 roadmaps were prepared. The roadmaps are mostly informative and their implementation is not monitored.

Green public procurement

Public procurement accounts for a large proportion of European consumption, with public authorities' purchasing power representing 14 % of EU GDP. Public procurement using green or circular criteria (life-cycle analysis, PaaS (platform as a service), second hand) can help drive the demand for sustainable products that meet reparability and recyclability standards.

In 2020, 8 323 public procurements were carried out in Estonia. The total value of public procurement was EUR 3.7 billion, which makes up 14 % of Estonia's GDP and 32 % of the state budget. Official statistics show that only 4.5 % of the total procurements and 17 % of the total procurement costs are green public procurement (GPP).

On 1 January 2022, mandatory GPP criteria were introduced for the central government sector for furniture, cleaning products and services, copying and graphic paper and computers and monitors. GPP is periodically monitored through the official electronic public procurement website: EProcurement Estonia.

On 24 February 2023, Minister of the Environment Regulation No 6, Environmental criteria and conditions for the procurement of road vehicles comprising the subject matter of the procurement contract in procurement documents, entered into force. It sets out the conditions for procuring environmentally friendly light vehicles, trucks and buses.

The EU Ecolabel and the eco-management and audit scheme

The number of EU Ecolabel product groups and the number of eco-management and audit scheme (EMAS)-licensed organisations in each country provide some indication of the extent to which the private sector and national stakeholders in that country are actively engaged in the transition to a circular economy. The EU Ecolabel is awarded to products with best-in-class environmental performance. EMAS is a voluntary environment

([3]) European Commission, 'Proximity and social economy ecosystem', European Commission website, https://single-market-economy.ec.europa.eu/sectors/proximity-and-social-economy_en.
([4]) Circular Economy Stakeholder Platform (https://circulareconomy.europa.eu/platform/en/strategies).
([5]) Ministry of Climate, *Ringmajanduse valge raamat*, Tallinn, 2022, https://ringmajandus.envir.ee/sites/default/files/2022-09/20220803_Valge%20raamat.pdf.
([6]) For more information, see Ministry of Climate, 'Eesti taaste ja vastupidavuskava raames sätestatud ringmajanduse tegevuskava', accessed 22 January 2025, https://ringmajandus.envir.ee/sites/default/files/2024-10/Eesti%20ringmajanduse%20tegevused%202024.pdf.
([7]) State Support Services Center, *Estonian Recovery and Resilience Plan 2023*, last updated 16 June 2023, Tallinn, https://pilv.rtk.ee/s/kwzABsf9cJY4mmb.
([8]) For more information, see the Estonian Environmental Agency web page on the project (https://keskkonnaportaal.ee/et/ringmajanduse-voimekuse-tostmine#KOVideteekaardid).

management scheme aimed at reducing the environmental impacts of organisations.

As of September 2024, Estonia had 1 789 products out of 98 977, and 21 licences out of 2 983 registered in the EU Ecolabel scheme, indicating low take-up of licences in particular ([9]). Moreover, 19 organisations from Estonia are currently registered in EMAS, one fewer than in 2021 ([10]).

No priority actions were suggested for Estonia in the 2022 Environmental Implementation Review (EIR), and the country has fulfilled previous priority actions by adopting a circular economy policy framework through its white paper and its action plan. These need to be strengthened and their implementation needs to be prioritised.

2025 priority actions

- Speed up the transition to a circular economy by implementing an updated national strategy and the EU framework and recommendations, in particular to complement it with upstream circularity measures.
- Adopt measures to increase the CMUR.

Waste management

Turning waste into a resource is supported by:

(i) addressing the full life cycle of products, from conception to end of life, by setting requirements on the design of products to ensure that they are more sustainable;
(ii) fully implementing EU waste legislation, which includes the waste hierarchy, the obligation to ensure separate collection of waste, landfill diversion targets, etc.;
(iii) reducing waste generation per capita and in absolute terms;
(iv) increasing the recycling rates of waste containing critical raw materials, with a view to reducing dependencies and building resilient value chains, and stimulating demand for recycled content in all products;
(v) limiting energy recovery to non-recyclable materials; and
(vi) phasing out landfilling of recyclable or recoverable waste.

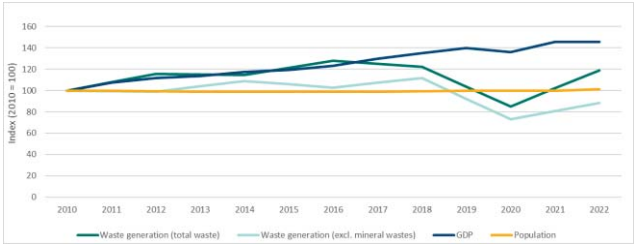
One of the main objectives of the EU Waste Law is to decouple economic growth from its environmental impacts.

The EU's approach to waste management is based on the waste treatment hierarchy: prevention, preparing for reuse, recycling, recovery and, as the least preferred option, disposal (which includes landfilling and incineration without energy recovery).

All legislative proposals in the field of waste management put forward by the Commission since 2021 are intended to encourage Member States to promote better product design, to require producers to cover the costs of managing the waste resulting from their products and to ensure that waste is managed at the higher levels of the waste hierarchy.

The total amount of waste generated in Estonia significantly increased over the period considered (Figure 3). However, the upward trend is primarily driven by mineral waste and a moderate decrease can be observed when this waste is excluded. Estonia's GDP shows steady growth, except for a drop in 2020, which is most likely to be due to the COVID-19 outbreak. This indicates that a decoupling from economic growth can be observed for total waste excluding major mineral waste. However, this is only partly the case for total waste.

Figure 3: Generation of waste (total and excluding major mineral waste), population and GDP, 2010–2022



Sources: Eurostat, 'GDP and main components (output, expenditure and income)', nama_10_gdp, accessed 15 October 2024, https://ec.europa.eu/eurostat/databrowser/view/nama_10_gdp__custom_9301905/default/table; Eurostat, 'Generation of waste by waste category, hazardousness and NACE Rev. 2 activity', env_wasgen, last updated 30 September 2024, accessed 22 October 2024, https://ec.europa.eu/eurostat/databrowser/view/env_wasgen/default/table?lang=en; Eurostat, 'Population change – Demographic balance and crude rates at national level', demo_grind, accessed 15 October 2024, https://ec.europa.eu/eurostat/databrowser/view/demo_gind/default/table?lang=en&category=demo.demo_ind.

Construction and demolition waste

Construction and demolition waste accounts for almost 40 % of all waste generated in the EU. A recent study ([11]) by the Joint Research Centre shows that recycling and

([9]) European Commission, 'EU Ecolabel facts and figures', European Commission website, accessed 22 January 2025, http://ec.europa.eu/environment/ecolabel/facts-and-figures.html.
([10]) As of October 2021. European Commission, 'EMAS Register – Published organisations', EMAS Register website, accessed 22 January 2025, https://webgate.ec.europa.eu/emas2/public/registration/list.
([11]) European Commission: Joint Research Centre, Cristobal Garcia, J., Caro, D. et al., *Techno-economic and environmental assessment of construction and demolition waste management in the European Union*, Publications Office of the European Union, Luxembourg,

preparation for reuse are preferred over incineration and landfilling from an environmental perspective for most of the different streams of construction and demolition waste. However, the economics are often unfavourable for recycling and preparation for reuse compared with incineration and landfilling. If available technology were to be applied, it is estimated that the increase in recycling and preparation for reuse would lead to an additional 33 Mt of greenhouse gas (GHG) emission savings annually (more than, for example, the combined annual GHG emissions from Estonia, Latvia and Luxembourg).

The rate of recycling and preparation for reuse of mineral construction and demolition waste in Estonia in 2022 was 66.6 %, compared with the EU average of 79.8 %. Measures to further increase the rate of recycling and preparation for reuse of construction and demolition waste include separate collection at the source – for instance, through digitalised pre-demolition audits ([12]) ('resource assessments'); extended producer responsibility (EPR) and other economic instruments; and upstream measures such as increasing the recycled content in construction products and the circular design ([13]) of construction works.

Boosting implementation – the 2023 *Waste Early Warning Report*

This section focuses on the management of municipal and packaging waste ([14]), for which EU law sets mandatory recycling targets. In June 2023, the Commission published the *Waste Early Warning Report* ([15]) identifying the general trends in waste management and the Member States at risk of missing 2025 waste targets (see Figure 4). Estonia is at risk of missing the municipal waste target but not the packaging waste target.

Figure 4: Member States' prospects of meeting the preparing for reuse and recycling targets for municipal waste and packaging waste

Member States not at risk of missing the 55 % preparing for reuse and recycling target for municipal waste and the 65 % recycling target for packaging waste

Member States at risk of missing the preparing for reuse and recycling target for municipal waste but not at risk of missing the recycling target for packaging waste

Member States at risk of missing both targets

Outside coverage

Source: European Environment Agency (EEA), 'Many EU Member States not on track to meet recycling targets for municipal waste and packaging waste', briefing No 28/2022, Copenhagen, 2023. Reference data © ESRI.

Under certain conditions, EU waste legislation enables some Member States to postpone the deadlines for reaching certain waste management targets for municipal and packaging waste. Member States that want to use this possibility have to notify the Commission 24 months in advance of the deadline and submit an implementation plan laying down the steps they envisage to reach the postponed targets within a new time frame. Regarding the

2024, https://publications.jrc.ec.europa.eu/repository/handle/JRC135470.

([12]) European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, *EU Construction & Demolition Waste Management Protocol including guidelines for pre-demolition and pre-renovation audits of construction works – Updated edition 2024*, Publications Office of the European Union, Luxembourg, 2024, https://op.europa.eu/en/publication-detail/-/publication/d63d5a8f-64e8-11ef-a8ba-01aa75ed71a1/language-en.

([13]) European Commission, *Circular Economy – Principles for buildings design*, Brussels, 2020, https://ec.europa.eu/docsroom/documents/39984.

([14]) Municipal waste consists of (i) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, biowaste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture; and (ii) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households (Directive 2008/98/EC, Article 3.2b).

([15]) https://environment.ec.europa.eu/publications/waste-early-warning-report_en.

2025 targets, 11 Member States, not including Estonia, have used this prerogative.

In the *Waste Early Warning Report*, the Commission recommended that Member States accelerate their efforts to improve their recycling performance. The Commission is, on one hand, working together with the national authorities and stakeholders to speed up the implementation of measures necessary to meet the targets, including through dedicated financing. On the other hand, the Commission is pursuing enforcement actions against those Member States that, based on data submitted to the Commission, do not achieve the targets of the Waste Framework Directive, the Packaging and Packaging Waste Directive and the Directive on Waste Electrical and Electronic Equipment ([16]).

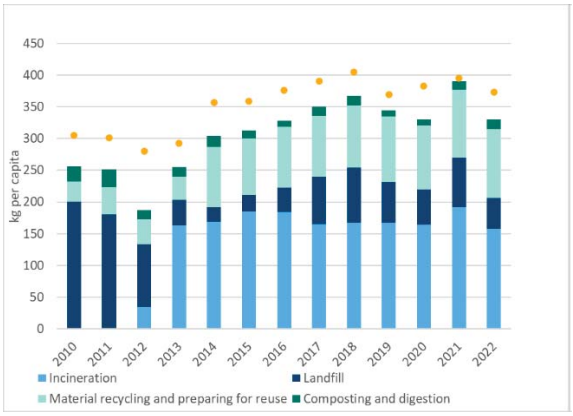
Estonia is currently taking important steps through a planned waste reform that will include targets for municipalities, an increase of the landfill tax and the introduction of incineration taxes.

Management of municipal and packaging waste

Estonia is one of the Member States with the lowest municipal waste generation per capita, with 373 kg per capita in 2022, well below the EU-27 average of 513 kg per capita (Figure 5).

However, Estonia had a 33 % rate of preparing for reuse and recycling in 2022, which is significantly below the estimated EU-27 average of 49 % in the same year ([17]). Until 2014, Estonia had made great progress in diverting municipal waste from landfill, mainly to incineration but also to recycling. However, since then, waste volumes have increased, the recycling rate has stayed largely stable and the share of landfilled waste has increased again. The most recent data show a positive development towards higher recycling rates and less landfilling of municipal waste (Figure 6).

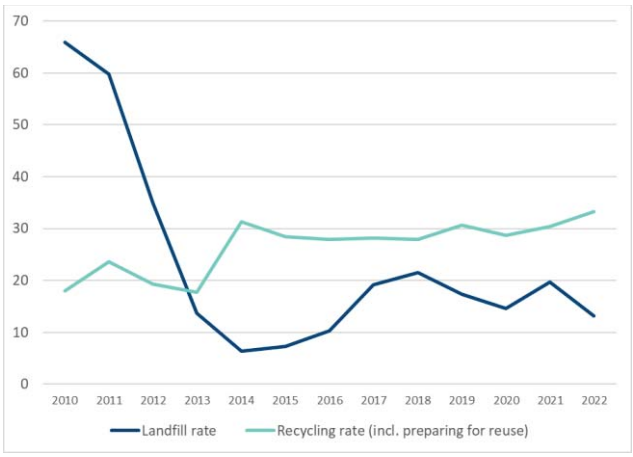
Figure 5: Municipal waste management and recycling (including preparation for reuse), 2010–2022



Source: Eurostat, 'Municipal waste by waste management operations', env_wasmun, accessed 22 October 2024, https://ec.europa.eu/eurostat/databrowser/view/ENV_WASMUN/default/table.

Estonia diverted municipal waste from landfill by introducing a mechanical biological treatment plant. The incineration rate reached 42 % and the landfill rate reduced to 13 % in 2022, which is close to the 2035 target. However, this led to the overcapacity of mechanical biological treatment plants and waste incineration facilities for energy recovery, hindering the recycling of municipal waste ([18]). The share of composting and digestion is rather low, at 5 % in 2022, due to an insufficient separate collection system and uneven capacity for treating biowaste across regions.

Figure 6: Recycling (including preparation for reuse) and landfill rates (%), 2010–2022



Source: Eurostat, 'Municipal waste by waste management operations', env_wasmun, accessed 22 October 2024, https://ec.europa.eu/eurostat/databrowser/view/ENV_WASMUN/default/table.

([16]) https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32012L0019.

([17]) The EU average might have been influenced by not all Member States fully applying the reporting rules for municipal waste set out in the Waste Framework Directive as amended in 2018.

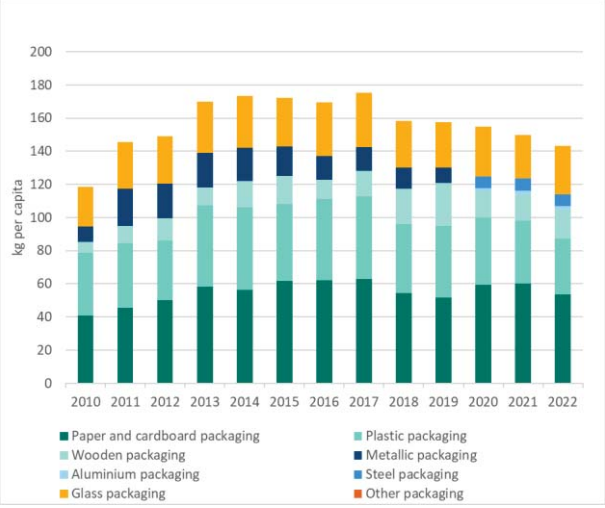
([18]) EEA, *Early warning assessment related to the 2025 targets for municipal and packaging waste – Estonia*, Copenhagen, 2022, https://www.eea.europa.eu/publications/many-eu-member-states/estonia/view.

Packaging waste

Estonia's packaging waste generation significantly increased between 2010 and 2017 but started to decrease in 2017. In 2022, the country generated 143 kg per capita, which is significantly below the estimated European average of 186 kg per capita in the same year (Figure 7) ([19]). This low figure may be an indication that some quantities of generated municipal waste are not reported ([20]).

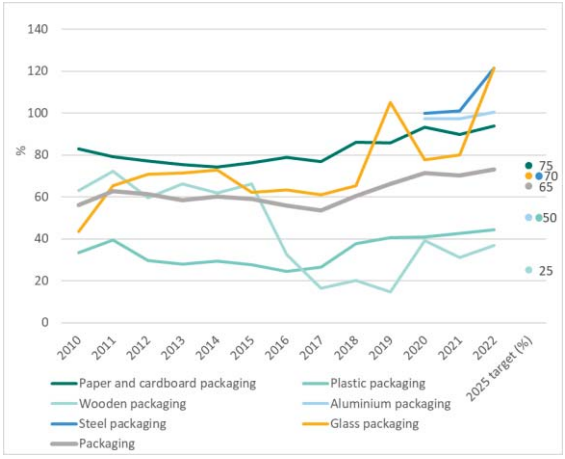
In 2022, the overall recycling rate for packaging waste was 73 %, which is slightly above the estimated EU-27 average of 65 % and is above the 2025 target (Figure 8). This high recycling rate is partly due to a deposit refund scheme for beverage packaging that has been in place since 2005 (EC, 2023). The overall recycling rate is mainly driven by paper/cardboard and plastic packaging recycling. The plastic packaging recycling rate has slightly increased since 2017 due to increased opportunities for recycling, the entry of new operators into the market and the start of full-time operation of Estonia's largest plastic-recycling plant in 2018. However, in 2022, the plastic packaging rate was 44 %, which is still below the 2025 material-specific target of 50 %. The peaks in glass recycling in 2019 and 2022 were influenced by the recycling of stocks of glass waste from previous years. The recycling of wooden packaging is affected by competition with biomass demand for energy purposes([21]). The recycling rates of both steel and aluminium waste exceeded the 2025 target.

Figure 7: Packaging waste generation, 2010–2022



Source: Eurostat, 'Packaging waste by waste management operations', env_waspac, last updated 23 October 2024, accessed 28 October 2024, https://ec.europa.eu/eurostat/databrowser/view/ENV_WASPAC__custom_842634/default/table?lang=en.

Figure 8: Packaging waste recycling rates (%), 2010–2022



Source: Eurostat, 'Packaging waste by waste management operations', env_waspac, last updated 23 October 2024, accessed 28 October 2024, https://ec.europa.eu/eurostat/databrowser/view/ENV_WASPAC__custom_842634/default/table?lang=en.

Policies to encourage waste prevention

Waste management plans and waste prevention programmes are instrumental to the full implementation of EU waste legislation. They set out key provisions and investments to ensure compliance with existing and new legal requirements (e.g. on waste prevention, on separate collection for certain waste streams, on recycling and on landfill targets).

Estonia's current national waste prevention programme (NWPP) is integrated into the NWMP for 2023–2028. While there is no explicit differentiation between waste management and waste prevention, Estonia's dedication to tackling food waste is clearly articulated. This commitment is outlined in a food waste prevention plan in the appendix to the NWMP. This includes six key areas to prevent and reduce food waste. Beyond food waste, the priority waste streams for prevention mentioned in the NWMP are household waste, construction and demolition waste, hazardous waste, packaging waste, biodegradable waste, waste textiles and waste from the shale oil industry ([22]). Preventing and reducing littering was introduced as a new priority in the NWPP for 2023–2028.

([19]) The EU average might have been influenced by not all Member States fully applying the reporting rules for packaging waste set out in Commission Implementing Decision (EU) 2019/665.

([20]) Commission Staff Working Document – The early warning report for Estonia, SWD(2023) 180 final of 8 June 2023, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD%3A2023%3A180%3AFIN.

([21]) https://ec.europa.eu/eurostat/databrowser/view/ENV_WASPAC__custom_842634/default/table?lang=en

([22]) EEA, *Waste Prevention Country Profile – Estonia*, Copenhagen, 2023, https://www.eea.europa.eu/themes/waste/waste-prevention/countries/2023-waste-prevention-country-fact-sheets/estonia_waste_prevention_2023.

The programme does not specify a budget for its implementation. Estonia intends to finance the activities through EU and local funds, as well as through funds from the Environmental Investment Centre ([23]).

The evaluation of the NWPP for 2014–2020 did not specify any indicators or targets for waste prevention; hence, its impact has not been assessed. However, a variety of supporting, regulatory and awareness-raising measures are highlighted.

Other examples of reuse initiatives in Estonia, although not incorporated into the NWMP for 2023–2028, include the yearly financial support provided by the Environment Investment Centre for waste prevention and reuse activities. In addition, it is notable that, from 2024, only reusable containers and utensils are permitted for food and beverage services at public events in Estonia([24]).

Policies to encourage separate collection and recycling

Estonia intends to further develop the separate collection of waste and introduce related changes through a comprehensive municipal waste reform backed up by support measures aiming to cover waste prevention, recycling and infrastructure for the separate collection of municipal waste.

Estonia has a door-to-door separate collection system at household properties in cities for paper and cardboard and for biowaste. There is a bring point system for the separate collection of glass, plastic, metal, paper and cardboard packaging (separate or commingled), complemented by door-to-door packaging collection in some areas. Most municipalities allow for the collection of food and garden waste in the same biowaste bin; otherwise, garden waste and wooden packaging are collected at civic amenity sites. The separate collection system mainly targets packaging, and the collection of non-packaging recyclable waste is mainly arranged at civic amenity sites.

In Estonia, EPR applies to all packaging and there is some advanced fee modulation in place. Estonia has packaging taxes in place that only apply when recycling rates are not fulfilled.

In order to incentivise sorting at the source, nearly all regions and municipalities have implemented various types of volume-based pay-as-you-throw schemes. Moreover, Estonia has a mandatory deposit return system for most aluminium drink cans, some glass drink bottles and most plastic drink bottles.

Policies to discourage landfilling or incineration

Estonia has had a landfill tax in place since 1991, and the rate has been EUR 29.84/t since 2015. This is considerably lower than the average landfill tax in those Member States applying such taxes. Estonia has had a ban in place for landfilling unsorted municipal waste since 2004, but exemptions led to considerable amounts still being landfilled. However, requirements have been strengthened and, since 2020, the share of biodegradable waste in municipal waste being landfilled cannot exceed 20 % by weight, all municipal waste has to be pretreated before landfilling and landfilling of separately collected waste is banned. Estonia has no tax on waste incineration, but incineration of separately collected waste is also banned.

Estonia's efforts translated into positive outcomes, with the rate for total packaging waste and all packaging materials except plastic packaging already above the 2025 targets, and the reported landfill rate close to the 2035 target. On the other hand, Estonia has made only minor progress recently on the recycling and preparation for reuse of municipal waste, while the combined share of landfilling and incineration has remained rather stable.

In the 2022 EIR, the European Commission recommended introducing new policy instruments, setting mandatory targets at the municipality level for recycling and residual waste generation, improving and extending separate collection systems, shifting reusable and recyclable waste away from incineration and improving the EPR systems. While it may be expected that some of these recommendations will be taken up as part of an announced reform of the national Waste Act and other relevant laws, these developments have yet to be finalised and thus the priority actions from the previous reporting period remain valid.

2025 priority actions

- Further shift reusable and recyclable waste away from incineration, including through economic instruments.
- Increase reuse of products and scale up waste recycling infrastructure associated with the higher steps of the waste hierarchy. In particular, improve collection and increase treatment capacity for bio-waste.
- Increase the collection and recycling rate of waste electronic and electric equipment (WEEE).
- Invest in waste prevention measures to reduce the total amount of waste generated.
- Develop EPR schemes for problematic waste and

([23]) EEA, *Waste Prevention Country Profile – Estonia*, Copenhagen, 2023, https://www.eea.europa.eu/themes/waste/waste-prevention/countries/2023-waste-prevention-country-fact-sheets/estonia_waste_prevention_2023.

([24]) EEA, *Waste Prevention Country Profile – Estonia*, Copenhagen, 2023, https://www.eea.europa.eu/themes/waste/waste-prevention/countries/2023-waste-prevention-country-fact-sheets/estonia_waste_prevention_2023.

introduce fee modulation.

- Ensure the achievement of the 2025 waste targets, following the recommendations made by the Commission in the Early Warning Reports where applicable.

2. Biodiversity and natural capital

Global and EU biodiversity frameworks

Biological diversity and healthy ecosystems are critical for our societies, underpin our economies and well-being and are essential for climate change adaptation and mitigation. The Kunming–Montreal global biodiversity framework (GBF), adopted in December 2022, sets comprehensive and measurable targets to tackle biodiversity loss by 2030. To implement this global framework and integrate biodiversity considerations into national decision-making, the EU – as well as all Member States – had to submit national biodiversity strategies and action plans (NBSAPs), or to communicate national targets aligned with the global targets, by the end of 2024. The EU biodiversity strategy for 2030 (BDS) aims to put EU biodiversity on a path to recovery by 2030. It sets quantified targets intended to protect and restore nature and manage ecosystems in a sustainable manner, as well as measures to enable implementation and commitments to support global biodiversity. A BDS actions tracker ([25]) and a dashboard of indicators ([26]) provide information on implementation progress. The recently adopted EU Nature Restoration Regulation ([27]) is the first EU-wide, comprehensive law of its kind and a key instrument for the EU to deliver on the global biodiversity targets for 2030. It lays down an overarching objective at the EU level to put in place effective restoration measures on 20 % of EU land and sea by 2030 and for all ecosystems in need of restoration by 2050. To achieve this, it sets binding targets for Member States to restore and maintain ecosystems, as well as an effective implementation framework based on national restoration plans. The BDS is the main instrument used by the EU to deliver on its obligation under the GBF.

The Commission has submitted to the Convention on Biological Diversity its report on GBF-aligned EU targets that stem from the BDS and from other policy instruments under the European Green Deal.

Member States' NBSAPs need to provide coherent frameworks for national delivery on the global and EU 2030 biodiversity targets. In line with the global obligations, NBSAPs should also include a biodiversity financing plan and a capacity-building plan, based on needs assessments, as well as an overview of the national indicators used to measure progress.

The EU aims to allocate to biodiversity objectives at least 7.5 % of annual spending under the EU budget in 2024, rising to 10 % in 2026 and 2027. For details on biodiversity financing and investments in Estonia, see 'Biodiversity and ecosystems' in Chapter 5.

Estonia's new environmental development plan for 2030, entitled *Keskkonnavaldkonna arengudokument* (KEVAD; the acronym forms the Estonian word meaning 'spring' ([28])), combines all environmental development plans and sets general targets for biodiversity conservation.

In addition to ensuring a network of protected areas that is ecologically well-functioning and effectively protected, Estonia will enhance biodiversity mainstreaming in the planning process to preserve biodiversity beyond protected landscapes and implement new ways of incentivising landowners to recognise and protect natural values. Estonia will also promote the performance of its green network, which will support the ecological coherence of habitats and the adequacy of species corridors.

Estonia has not yet submitted an updated NBSAP or national targets to the Convention on Biological Diversity.

A national action plan for all forest habitats will be prepared under the financial instrument for the environment (LIFE) integrated project (to be finalised by 2029).

2025 priority action

- Submit to the CBD an updated NBSAP or national targets following the adoption of the Kunming-Montreal Global Biodiversity Framework.

([25]) EU Biodiversity Strategy Actions Tracker (https://dopa.jrc.ec.europa.eu/kcbd/actions-tracker/).

([26]) EU Biodiversity Strategy Dashboard (https://dopa.jrc.ec.europa.eu/kcbd/EUBDS2030-dashboard/?version=1).

([27]) Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869 (OJ L, 2024/1991, 29.7.2024), http://data.europa.eu/eli/reg/2024/1991/oj; see also the Commission web page on the law (https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en).

([28]) https://kliimaministeerium.ee/kevad.

Nature protection and restoration – Natura 2000

Natura 2000 ([29]), the largest coordinated network of protected areas in the world, is key to the achievement of the objectives set out in the Birds and Habitats Directives. These objectives are to ensure the long-term protection, conservation and survival of Europe's most valuable and threatened species and habitats and the ecosystems they underpin. Key milestones towards meeting the objectives of the Birds and Habitats Directives are (i) the setting up of a complete and coherent Natura 2000 network; (ii) the designation of sites of community importance (SCIs) as special areas of conservation (SACs) ([30]); and (iii) effective management of all Natura 2000 sites through the setting of site-specific conservation objectives and measures.

Setting up a complete and coherent network of Natura 2000 sites

The setting up of a complete and coherent network of Natura 2000 sites is a cornerstone of the EU's international commitments, under the BDS and GBF, to legally protect a minimum of 30 % of its land area and 30 % of its sea area by 2030.

Meeting these commitments requires the full implementation of Article 3 of the Habitats Directive. The Natura 2000 network should represent a complete and coherent ecological network composed of sites hosting natural habitat types and species of community interest. Natura 2000 will enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored to a favourable conservation status in their natural range.

Estonia hosts 60 habitat types ([31]) and 95 species ([32]) covered by the Habitats Directive. The country also hosts populations of 75 bird taxa listed in the Birds Directive Annex I ([33]).

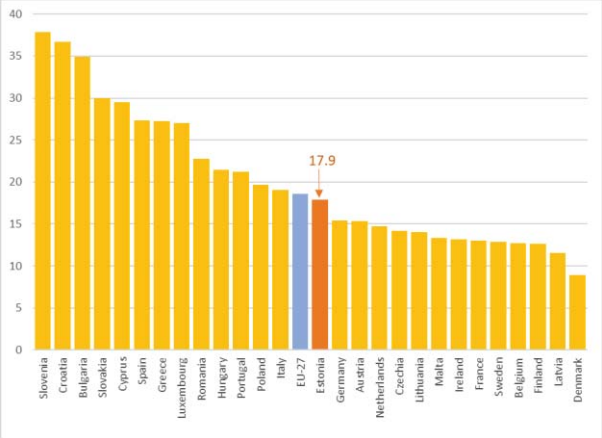
As shown in Figure 9, in 2023, 17.9 % of the national land area of Estonia was covered by Natura 2000 (EU coverage: 18.6 %), with special protection areas (SPAs) classified under the Birds Directive covering 13.7 % (EU coverage: 12.8 %) and SCIs under the Habitats Directive covering 17.2 % (EU coverage: 14.3 %) of Estonia's territory.

With 18.7 % of its marine waters covered by protected areas, Estonia surpasses the EU average of 12.1 % ([34]). The latest assessment of the SCI part of the Natura 2000 network shows that the designation is complete.

Estonia intends to compile management plans for protected habitats (wet forests, dry forests, rocky habitats, rivers, lakes, dunes, coastal habitats, marine habitats).

Considering both areas covered by Natura 2000 and other nationally designated protected areas, Estonia legally protects 21 % of its terrestrial area (EU-27 coverage: 26.1 %) and 18.7 % of its marine area (EU-27 coverage: 12.3 %) ([35]).

Figure 9: Natura 2000 terrestrial protected area coverage per Member State (%), 2023



Source: European Environment Agency (EEA), 'Natura 2000 Barometer', 2023 data, accessed March 2025, https://www.eea.europa.eu/data-and-maps/dashboards/natura-2000-barometer.

([29]) Natura 2000 comprises sites of community importance (SCIs), designated pursuant to the Habitats Directive, as well as special protection areas (SPAs), classified pursuant to the Birds Directive. Numbers of protected areas in Figure 9 do not add up to the total of SCIs plus SPAs, because some SCIs and SPAs overlap. An SAC is an SCI designated by a Member State.

([30]) SCIs are designated pursuant to the Habitats Directive, whereas SPAs are designated pursuant to the Birds Directive. Figures of coverage do not add up because some SCIs and SPAs overlap.

([31]) See indicators A1.1.1 and A1.2.1 of the EU Biodiversity Strategy Dashboard (https://dopa.jrc.ec.europa.eu/kcbd/EUBDS2030-dashboard/?version=1).

([32]) EEA, 'Number of habitats and species per Member State', Article 17 dashboard, accessed in February 2025, https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/article-17-national-summary-dashboards/general-information-on-habitats-and-species.

([33]) EEA, 'Number of bird species/populations per Member State', Article 12 dashboard, Annex I total, last updated 11 May 2023, https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/article-12-national-summary-dashboards/general-information-on-bird-species-populations. This counting only takes into account birds taxa for which information was requested.

([34]) https://biodiversity.europa.eu/countries/estonia.

([35]) Eurostat dataset env_bio4, 2022 data, accessed 12 March 2025

Designating Special Areas of Conservation and setting site-specific conservation objectives and measures

The six-year deadline set by the Habitats Directive to designate SCIs as SACs and establish appropriate conservation objectives and measures has been met, as Estonia has designated all SCIs as SACs. However, an infringement procedure is open against Estonia on account of the failure to establish adequate conservation objectives and measures for all its SACs. In response to the Commission's enforcement efforts, Estonia has accelerated establishment of those objectives and measures. The Commission is now assessing the quality of the objectives and measures recently established.

2025 priority actions

- Finalise the establishment of site-specific conservation objectives and measures for all Natura 2000 sites (including by adopting their management plans) and ensure their effective implementation.
- Ensure the effective implementation of Natura 2000 management plans and sufficient administrative capacity and financing both for Natura 2000 and the implementation of the Nature Restoration Regulation. Ensure implementation of Prioritised Actions Framework 2021-2027 (PAFs).

Recovery of species

One objective set by the BDS is that, by 2030, there should be no further deterioration in conservation trends or the status of any protected species. The BDS also states that Member States should ensure that at least 30 % of species not currently in favourable conservation status achieve that status or show progress towards doing so (e.g. by exhibiting positive population dynamics or stable or increasing range and habitat size), by 2030. According to the European Environment Agency (EEA), based on reporting required under Article 17 of the Habitats Directive, a quarter of species in the EU were of good conservation status as of 2018 ([36]).

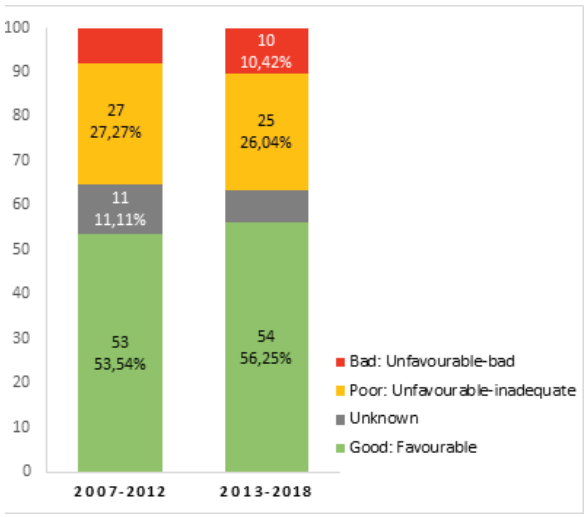
One of the primary objectives of the Habitats Directive is the maintenance of or restoration to favourable conservation status of all species of community interest. Moreover, the Birds Directive also aims to ensure that all wild birds in the EU enjoy a secure status. In order to achieve these objectives, it will be necessary to address key pressures and threats. The Birds Directive and the Habitats Directive lay down a framework of species protection rules and rules on the conservation of habitats and species in order to combat these threats.

Under Article 17 of the Habitats Directive, Member States are required to report on the conservation status of habitats and species every six years. The current reporting cycle, covering the years 2019 to 2024, is due for submission in July 2025. Figures 10 and 11 show the latest available conservation status data.

For protected species, the share of assessments indicating good conservation status in 2018 was 56.25 %, which is 2.71 % more than the 53.54 % reported under the previous reporting period (2007–2012) ([37]). The EU average was 27.5 %. As far as birds are concerned, 60 % of the breeding species showed short-term increases or stable population trends (for wintering species, this figure was 85.72 %).

The share of assessments indicating species having bad or poor conservation status increased slightly, to 36 % (35 % in the previous reporting period).

Figure 10: Assessments of conservation status of species for the 2007–2012 and 2013–2018 reporting periods



NB: The values shown for 2007–2012 and 2013–2018 are not necessarily directly comparable because changes in conservation status in a Member State may result from changes to methods or use of better data, rather than reflecting genuine changes.

Source: EEA, 'Conservation status and trends of habitats and species', 19 December 2019, accessed December 2021, https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/article-17-national-summary-dashboards/conservation-status-and-trends.

The main pressures for species (in descending order) are forestry, agriculture and human-induced changes in water regimes.

([36]) EEA, *State of Nature in the EU: Results from reporting under the Nature Directives 2013–2018*, Publications Office of the European Union, Luxembourg, 2020, https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020.

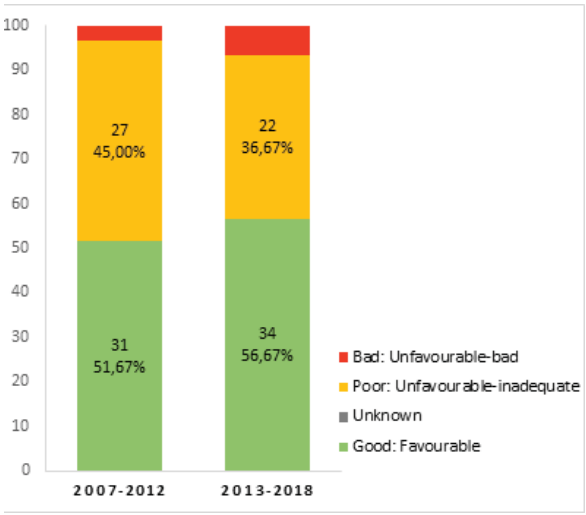
([37]) 16.67 % of which reflect genuine changes.

In Estonia, 56.7 % of habitats assessments indicate good conservation status, which is considerably above the EU average of 14.7 %.

According to the report submitted by Estonia on the conservation status of habitats covered by Article 17 of the Habitats Directive for 2013–2018, the share of assessments of habitats indicating good conservation status in 2018 was 5 % more than the 51.67 % reported under the previous reporting period (2007–2012) ([38]).

At the same time, the share of habitats in bad or poor conservation status decreased to 44 % (from 48 % in the previous reporting period).

Figure 11: Assessments of conservation status of habitats for the 2007–2012 and 2013–2018 reporting periods



NB: The values shown for 2007–2012 and 2013–2018 are not necessarily directly comparable because changes in conservation status in a Member State may result from changes to methods or use of better data, rather than reflecting genuine changes.

Source: EEA, 'Conservation status and trends of habitats and species', 19 December 2019, accessed December 2021, https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/article-17-national-summary-dashboards/conservation-status-and-trends.

Of the 27 % of forest area protected under the Nature Directives, only 20 % of Estonian habitats show a favourable conservation status ([39]).

The main pressures for habitats (in descending order) are agriculture, natural processes and forestry.

In relation to pressures caused by drainage systems for forestry and agriculture (human-induced changes in water regimes), Estonia intends to change its Nature Conservation Act to require the permission of the Environmental Board not only for the construction of new drainage systems but also for the renovation and maintenance of existing ones in all protected areas.

Pressures stemming from infrastructure development need to be addressed by, inter alia, improved implementation of Articles 6(3) and (4) of the Habitats Directive. There have been recent issues with environmental impact assessments (EIAs), including appropriate assessments under the Habitats Directives regarding large infrastructure projects, such as Rail Baltica or Via Baltica. Problems included the lack of assessment of a protected species subject to a site's conservation objectives, justifications of overriding public interest or logging in compensation areas.

While the overall shares of habitats and species in good conservation status have slightly increased in Estonia, the majority of mire, forest and semi-natural grassland habitats remain in an unfavourable status.

An infringement procedure is open against Estonia, based on concerns about the bad application of the Habitats Directive, in particular with regard to appropriate assessment procedure concerning logging activities in Natura 2000 areas. In response to the infringement procedure, Estonia has restricted logging in Natura 2000 areas; however, further steps are needed to achieve full compliance, in particular through amendments to the Nature Conservation Act in respect of appropriate assessment and through establishing a forest management plan.

([38]) However, 26.7 % of these changes were due to changes in methods or due to better data, and only 6.7 % reflect genuine changes.

([39]) EEA, *State of Nature in the EU: Results from reporting under the Nature Directives 2013–2018*, Publications Office of the European Union, Luxembourg, 2020, https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020.

Recovery of ecosystems

Agricultural ecosystems

The BDS works alongside the common agricultural policy (CAP) to support the transition to sustainable agriculture.

The strategy has set five common agriculture-related targets for 2030, namely to:

— reduce by 50 % the overall use of – and risk from – chemical pesticides;
— reduce by 50 % the use of more hazardous pesticides;
— reduce by 50 % losses of nutrients from fertilisers (which will result in a 20 % reduction in the use of fertilisers) while ensuring that there is no deterioration of soil fertility;
— restore at least 10 % of agricultural area to have high-diversity landscape features; and
— increase the area under organic farming to at least 25 %.

The "Vision for agriculture and food" ([40]), adopted by the European Commission in February 2025, sets a roadmap to an agri-food system that is attractive, competitive, sustainable and fair for current and future generations. To ensure a sustainable future for EU agriculture, it is crucial that these four priority areas are pursued together, and that public and private support are adequately targeted toward this objective.

The CAP and national CAP strategic plans (SPs) that establish the framework for the transition to sustainable agriculture are key instruments to facilitate and strengthen the efforts of European farmers to protect biodiversity and the environment at large. The Commission approved Member States' CAP SPs in 2022. CAP is the largest source of funding for the implementation of EU environment policy and SPs should lead to better protection of soil, water, air quality and biodiversity.

While certain CAP result indicators focus on the national measures favouring sustainable agriculture practices that regenerate the ecosystems, the impact of these measures is difficult to be assessed. The uptake of the eco-schemes is voluntary for farmers.

The utilised agricultural area in Estonia increased from 955 900 ha in 2012 to 1 003 510 ha in 2016 and then decreased to 986 210 ha in 2022 ([41]).

Landscape features are small fragments of non-productive and typically – but not exclusively – semi-natural vegetation present in or adjacent to agricultural land. They provide ecosystem services and support for biodiversity. The indicator 'share of agricultural land covered with landscape features' is the ratio between the area covered by landscape features and the area covered by agricultural land. Based on the Land Use/Cover Area Frame Survey landscape features estimates, the share of agricultural land covered by non-productive landscape features in Estonia is 5.6 %, which is exactly the EU average.

In 2024, the CAP basic regulations were amended ([42]) regarding, inter alia, the standards for good agricultural and environmental condition of land. These changes removed the obligation for farmers benefiting from CAP area-related support to have a minimum share of 3–4 % of non-productive area or landscape features in their farms. The amended regulations set out, however, an obligation for Member States to establish and provide support for eco-schemes covering practices for the maintenance of non-productive areas, such as land lying fallow, and for the establishment of new landscape features on arable land.

The recently adopted Nature Restoration Regulation ([43]) focuses on the restoration of agricultural ecosystems and requires Member States to put in place measures that aim to achieve an increasing trend at the national level in at least two out of three indicators for agricultural ecosystems ([44]). One of these indicators is the 'share of agricultural land with high-diversity landscape features'.

Estonia's environmental development plan for 2030 contains several actions aiming to improve biodiversity in agricultural ecosystems:

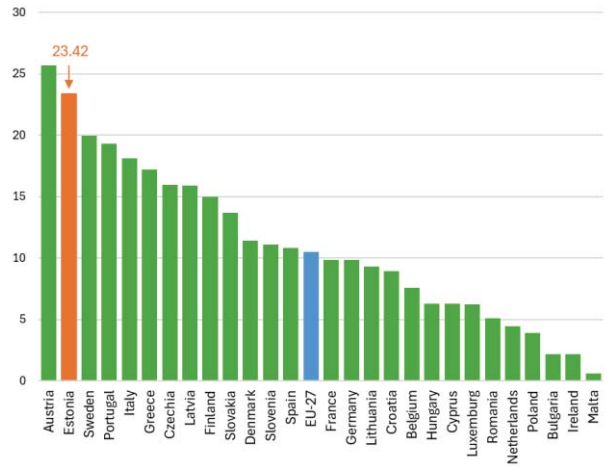
- enhancing the biodiversity of agricultural landscapes, with a particular focus on pollinators and farmland birds;

([40]) https://agriculture.ec.europa.eu/overview-vision-agriculture-food/vision-agriculture-and-food_en
([41]) Eurostat, 'Utilised agricultural area by categories', tag00025, accessed 5 December 2024, https://ec.europa.eu/eurostat/databrowser/view/tag00025/default/table?lang=en.
([42]) Regulation (EU) 2024/1468 of the European Parliament and of the Council of 14 May 2024 amending Regulations (EU) 2021/2115 and (EU) 2021/2116 as regards good agricultural and environmental condition standards, schemes for climate, environment and animal welfare, amendment of the CAP strategic plans, review of the CAP strategic plans and exemptions from controls and penalties (OJ L, 2024/1468, 24.5.2024), http://data.europa.eu/eli/reg/2024/1468/oj.
([43]) Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869 (OJ L, 2024/1991, 29.7.2024), http://data.europa.eu/eli/reg/2024/1991/oj.
([44]) The three indicators are 'grassland butterfly index', 'stock of organic carbon in cropland mineral soils' and 'share of agricultural land with high-diversity landscape features'.

- restoring and maintaining heritage meadows and valuable permanent grasslands;
- using sustainable tillage practices;
- mitigating the negative effects of drainage, ensuring that both agricultural drainage systems and forest drainage ditches are as close to nature as possible and do not harm biodiversity;
- preserving and creating biodiversity-friendly landscape features and habitats, including small wetlands, tree rays and grassland habitats.

Organic farming practices are highly beneficial to biodiversity. As shown in Figure 12, it is estimated that 23.42 % of Estonia's land area is used for organic farming. This is the second-best result in the EU and well above the EU average of 10.50 % ([45]). Estonia is contributing substantially to achieving the target of 25 % of the EU's agricultural land being used for organic farming by 2030.

Figure 12: Share of total utilised agricultural area occupied by organic farming per Member State (%), 2022



Source: Eurostat, 'Area under organic farming', sdg_02_40, accessed 5 December 2024, https://ec.europa.eu/eurostat/databrowser/view/sdg_02_40/default/table?lang=en.

2025 priority action

- Implement eco-schemes and agri-environmental measures and practices to address the environmental needs of Estonia.

Soil ecosystems

Soil is an essential, finite and extremely fragile resource. Its increasing degradation poses a threat to EU food security and climate resilience, adaptation and mitigation.

The EU soil strategy, adopted in November 2021, aims to support soil protection, sustainable soil management and the restoration of degraded soils to achieve the Green Deal objectives as well as land degradation neutrality by 2030.

This entails:

— preventing further soil degradation;
— making sustainable soil management the new normal;
— taking action for ecosystem restoration.

The proposed directive on soil monitoring and resilience ([46]) aims to introduce the first comprehensive legislation on the protection of all soils in the EU. Should the directive be adopted, Member States will have to transpose it into national legislation and implement it, starting with putting in place the governance systems and a sound monitoring framework building on existing national soil monitoring frameworks. The objective of the proposed directive is to provide better and more comparable soil health data with the view of attaining healthy soils by 2050.

Degradation of soil ecosystems encompasses several aspects. The proposed directive requires Member States to assess soil health according to a set of common indicators and to define the necessary regeneration measures. The area of soil that is sealed is an important factor in monitoring land-use change and represents an important pressure on nature and biodiversity. Other soil issues related to land degradation are soil erosion, soil compaction, loss of soil organic carbon, soil contamination, soil salinisation and the presence in soil of nitrogen and phosphorus in excess. The impact assessment accompanying the proposal, which builds on the data available in the EU Soil Observatory, points to the following soil degradation issues in Estonia ([47]).

([45]) This is based on the latest available information from Eurostat, which is currently under review; European Commission, *Agriculture biologique au sein de l'union européenne*, factsheet, Brussels, 2024, https://agriculture.ec.europa.eu/document/download/c67458ed-ec50-4762-ae68-341763ab93c2_fr?filename=factsheet-organic-farming_fr.pdf&prefLang=en.

([46]) Proposal for a directive of the European Parliament and of the Council on soil monitoring and resilience (Soil Monitoring Law), COM(2023) 416 final of 5 July 2023, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52023PC0416.

([47]) Commission staff working document – Impact assessment report: Annexes – Accompanying the proposal for a directive of the European Parliament and of the Council on soil monitoring and resilience (Soil Monitoring Law), SWD(2023) 417 final of 5 July 2023, https://environment.ec.europa.eu/system/files/2023-

45 % of Estonia's land has a high or very high susceptibility to topsoil compaction. 18 % of the national territory consists of peatland areas experiencing degradation and losing organic soils, of which 72 % are on agricultural land.

Grasslands

Grasslands are among the most diverse ecosystems in the EU; they can contain as many as 80 different plant species per square metre and are home to a large variety of animals, ranging from small insects, birds and rodents to large herbivores. Grasslands are essential for agriculture and livestock herding. Natural grasslands also play an important role in storing carbon. However, changes in agricultural practices and land uses have caused grasslands to disappear at an alarming rate, making them one of Europe's most threatened ecosystems.

The majority of Estonian grassland habitats protected under the Habitats Directive have unfavourable conservation status (five out of eight grassland habitats reported under Article 17 in 2013–2018 = 62.5 %) ([48]). Equally, Fennoscandian wooded pastures are in unfavourable condition.

Estonia is taking measures to address the main pressures and threats, which are fragmentation, lack of management (e.g. mowing or low-density grazing), afforestation, ploughing, fertilisation, construction and development, and drainage for wet meadows.

Estonia has a grassland action plan ([49]), which aims to maintain or restore the favourable status of 50 000 ha of grassland habitats ('heritage meadows') by 2027. This is particularly important because about half of the protected species in the country are found in semi-natural meadow communities.

The country's current CAP SP includes two rural development programme actions for maintaining high-nature-value grasslands and heritage meadows.

Estonia received the LIFE Natura 2000 Award in 2022 for its project ' ([50].

Alvars are a habitat based on a limestone plain with thin or no soil and, as a result, sparse grassland vegetation. Estonia has a special responsibility for this grassland type, as one third of all alvar grasslands in Europe are found in Estonia.

The project has restored 2 500 ha of alvar grasslands in Estonia – roughly 25 % of the global total – by removing woodlands and forests that developed spontaneously on these sites.

During the project, the status of the Habitats Directive's priority habitat type Nordic alvar and Precambrian calcareous flatrocks (6280*) was directly improved by more than doubling the habitat area of alvar grasslands in favourable condition in Estonia.

All restored sites became eligible for CAP agri-environmental payments, ensuring the viability of both farming activities and the habitats in the longer term.

As a spin-off from the project, a farmers' cooperative set up on Muhu island. The cooperative markets meat from the restored alvar grasslands.

2025 priority action

- Promote active management of grasslands through extensive grazing to maintain the condition of these semi-natural habitats.

Wetlands/peatlands

Wetlands act as water sources and purifiers; they are the planet's greatest natural carbon stores and they are crucial to agriculture and fisheries. Peatlands are a special type of wetlands dominated by peat-forming plants such as Sphagnum mosses. Nearly all peatlands in the EU are habitat types listed in Annex I to the Habitats Directive. Drained peatlands under intensive agricultural use constitute only 3 % of the EU's utilised agricultural area. At the same time, they are responsible for 25 % of the GHG emissions from the EU's agricultural sector. Restoring peatlands brings multiple benefits, as peatlands improve water retention and quality, store carbon, reduce GHG emissions and increase biodiversity.

The majority of Estonian bogs, mires and fens protected under the Habitats Directive have unfavourable conservation status (five out of eight habitats reported under Article 17 in 2013–2018 = 62.5 %) ([51]).

The main pressures and threats are draining of forest and agricultural land, and mining activities that affect the

07/IMPACT ASSESSMENT REPORT ANNEXES SWD 2023 417 part4.pdf.

([48]) https://nature-art17.eionet.europa.eu/article17/habitat/report/?period=5&group=Grasslands&country=EE&region=.

([49]) Environmental Board, *Heritage Meadows Action Plan*, Pärnu, 2021, https://keskkonnaamet.ee/sites/default/files/documents/2021-09/parandniitude_tegevuskava_2021-2027_1.pdf.

([50]) https://webgate.ec.europa.eu/life/publicWebsite/project/LIFE13-NAT-EE-000082/restoration-of-estonian-alvar-grasslands; https://nature-art17.eionet.europa.eu/article17/habitat/report/?period=5&group=Bogs,+mires+&+fens&country=EE&region=.

([51]) nature-art17.eionet.europa.eu/article17/habitat/report/?period=5&group=Bogs%2C+mires+%26+fens&country=EE&region=.

water regime of mire habitats and other developments.

Peatlands are unique and rare ecosystems that, despite only covering around 3-4% of the planet's land surface, contain up to one-third of the world's soil carbon, which is twice the amount of carbon as found in the world's forests. Peatland restoration and sustainable management is highly important to both combat climate change and preserve biodiversity. Living peatlands not only sequester carbon dioxide (CO_2) but also provide a healthy habitat for valuable species and remove nitrates from polluted agricultural run-off through denitrification. Peatland loss also means biodiversity loss, more floods and droughts, degraded drinking water for local communities and eutrophication of open waters. This last impact should be avoided, especially around the Baltic Sea, which is affected by eutrophication at a level of 97 %. Damage is caused when peatlands are drained for agriculture and tree planting, with peat extracted for fuel or horticulture.

As a direct consequence of peat extraction, about 30 000 ha of raised bogs have been destroyed in Estonia, of which around 20 000 ha are still used.

In Estonia, drained peatlands are one of the most important emitters of GHG after the oil shale industry. As a result of the drainage of bogs, total GHG emissions (carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O)) in Estonia, converted into CO_2 equivalent, are estimated to be 2.3–2.7 times higher than the emissions if those wetlands were still in their natural state. Therefore, restoring the natural state of degraded areas from drainage is important not only for biodiversity conservation but also for climate change mitigation.

According to its nature conservation and development plan for 2012–2020, Estonia intends to restore the water regime of 10 000 ha of mire habitats and of 1 000 ha of former peat-mining areas. The country established an action plan for the restoration of mires (2015–2023), which set out a priority list of mires in need of restoration.

Estonia won the Natura 2000 Award in 2024 in the category 'Conservation on land' for large-scale restoration of mire habitats. Funded by the EU LIFE programme, the intervention focused on restoring the most important mire areas in six Natura 2000 sites and achieved the restoration of natural water conditions in nearly 8 000 ha of mires.

The project targeted 10 Natura 2000 wetland habitat types recognised as EU-level conservation priorities, including active raised bogs, bog woodlands, Fennoscandian deciduous swamp woods and western Taiga forests.

2025 priority action

- Implement peatland conservation and restoration measures and include such measures and objectives in the national restoration plans.

Forest ecosystems

Forests are important carbon sinks, and conserving them is vital if the EU is to achieve climate neutrality by 2050. The EU forest strategy for 2030, adopted in July 2021, is a plan of actions to promote the many services that forests provide. Its key objective is to ensure healthy, diverse and resilient EU forests that contribute significantly to the achievement of the EU's biodiversity and climate ambitions. About 27 % of the forest area in the EU is covered by habitat types listed in Annex I to the Habitats Directive. Moreover, forests host several species protected under the Birds and Habitats Directives, including those for which there is a requirement to designate Natura 2000 sites and to protect breeding sites and resting places.

Several guidelines on forestry management were published in 2023. They covered biodiversity-friendly afforestation, reforestation and tree planting; closer-to-nature forest management; and defining, mapping, monitoring and strictly protecting primary and old-growth forests. Further guidance on payment schemes for ecosystems services has also been published.

In 2023, the Commission proposed a new forest monitoring law ([52]) that aims to create a comprehensive forest knowledge base, address information gaps and enable a better response to growing pressures on forests.

Assessments show that, of the 27 % of EU forest area protected under the Habitats Directive, less than 15 % is of favourable conservation status ([53]). The share of forested areas in the EU with a bad conservation status increased from 27 % in 2015 to 31 % in 2018.

In Estonia, forests covered 56.1 % of the territory in 2020 ([54]) and 52 000 ha are covered by primary

([52]) Proposal for a Regulation of the European Parliament and of the Council on a monitoring framework for resilient European forests, COM(2023)728, 22 November 2023, https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2023)728&lang=en

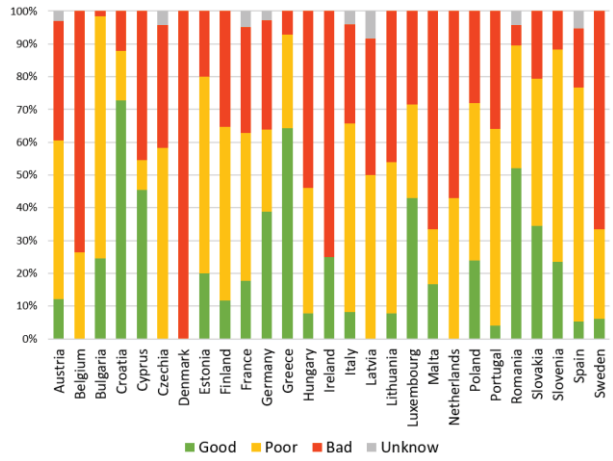
([53]) EEA, *State of Nature in the EU: Results from reporting under the Nature Directives 2013–2018*, Publications Office of the European Union, Luxembourg, 2020, https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020.

([54]) EEA, forest information system for Europe, 'Countries – FISE country factsheets', forest information system for Europe website, https://forest.eea.europa.eu/countries.

forests ([55]). More than 75 % of the assessments of EU-protected forest habitats in Estonia reveal a bad or poor status ([56]).

Estonia will encourage the use of sustainable forestry practices to increase the species and structural diversity of economic forests, to preserve native trees and to ensure the protection and conservation of remaining natural and old-growth forests.

Figure 13: Conservation status of forests protected under the Habitats Directive per Member State (% of assessments), 2013–2018



Source: Commission staff working document – New EU forest strategy for 2030, SWD(2021) 652 final of 16 July 2021, p. 24, eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021SC0652.

.

The EU Timber Regulation (EUTR) ([57]) prohibits the placing on the EU market of illegally harvested timber.

On 29 June 2023, the Regulation on Deforestation-free Products (EUDR) ([58]) entered into force ([59]). The regulation seeks to guarantee that products in the EU that are made using any of seven listed commodities have no links to deforestation. The EUDR repeals the EUTR.

2025 priority actions

- Ensure sustainable management of forests, i.a. by adopting the National Forest Programme post-2020 and consider the conservation objectives of Natura 2000 forest sites when developing the National Forest Management Plan.
- Improve conservation status of forests by promoting sustainable forest management and ensuring compliance with the Habitats Directive before granting/renewing permits for forest logging.

Marine ecosystems

The Marine Strategy Framework Directive (MSFD) requires Member States to achieve good environmental status (GES) for their marine waters. To that end, Member States must draw up marine strategies for their marine waters and cooperate with other Member States sharing the same marine region or subregion. These marine strategies comprise different steps to be developed and implemented over six-year cycles.

Since the 2022 EIR report, no additional data regarding Member States' set of GES characteristics for each descriptor in the MSFD have become available. Nevertheless, Member States had to report updates by 15 October 2024, and these will be assessed by the Commission. In the context of this next round of reporting, in accordance with the MSFD and the Commission GES decision ([60]), Member States must include as part of their set of GES characteristics any threshold values for the descriptors in the MSFD that may have been established in cooperation with other Member States at the EU or regional level ([61]). Estonia

([55]) European Commission: Joint Research Centre, *Mapping and assessment of primary and old-growth forests in Europe*, Publications Office of the European Union, Luxembourg 2021, p. 13, "https://publications.jrc.ec.europa.eu/repository/handle/JRC124671"https://publications.jrc.ec.europa.eu/repository/handle/JRC124671.

([56]) Commission staff working document – Stakeholder consultation and evidence base: Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – New EU forest strategy for 2030, SWD(2021) 652 final of 16 July 2021, https://eur-lex.europa.eu/legal-content/NL/TXT/?uri=CELEX:52021SC0652

([57]) Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market (OJ L 295, 12.11.2010, p. 23), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32010R0995.

([58]) Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010 (OJ L 150, 9.6.2023, p. 206), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023R1115&qid=1687867231461

([59]) The law will apply to large and medium-sized companies starting on December 30, 2025, and to micro and small enterprises starting on June 30, 2026.

([60]) Commission Decision (EU) 2017/848 of 17 May 2017 laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU (OJ L 125, 18.5.2017, p. 43), http://data.europa.eu/eli/dec/2017/848/oj.

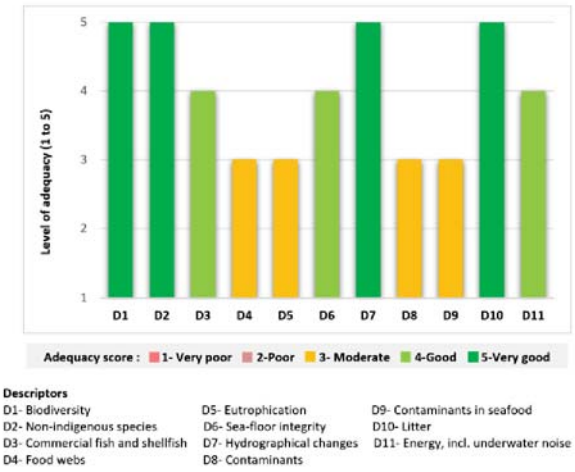
([61]) Communication from the Commission of 11 March 2024 – Commission notice on the threshold values set under the Marine

reported the Article 8, 9 and 10 data required by Article 17 of the MSFD, which are now being assessed by the Commission.

The Commission assessed the updated monitoring programme reported by Member States in 2020 ([62]). At that time their updates on the elements, features and parameters identified monitoring gaps. The Commission recommended that Member States should prioritise work to address those gaps at all levels of implementation of the MSFD.

Member States also reported their updated programmes of measures, which are required under Article 13 of the MSFD and which must be updated every six years. The Commission has assessed Member States' programmes of measures.

Figure 14: Level of adequacy of Estonia's updated programme of measures under Article 13 of the MSFD (2022 reporting exercise)



Source: Technical assessment carried out by the European Commission, pursuant to Article 16 of the MSFD, based on the data reported by Estonia in March 2023.

The most important known localities of marine, seal and seabird habitats are protected under the Natura 2000 network.

The majority of marine habitats protected under Annex I to the Habitats Directive are of favourable status ([63]), but face numerous pressures and threats, such as pollution, eutrophication, physical modifications of habitats and disturbances (dumping, mining, construction), by-catch and invasive alien species (IAS).

Marine species protected under the Birds and Habitats Directive are seabirds and marine mammals.

Around 50 % of marine species are categorised as being of favourable status ([64]).

The main threat for both mammals and seabirds is by-catch caused by gill nets and fyke nets.

While the grey seal is of favourable conservation status, the ringed seal is of unfavourable status.

Of the main seabird species affected by by-catch, the long-tailed duck, tufted duck and great-crested grebe show stable or increasing populations, whereas populations of eider and Steller's eider are decreasing.

Estonia has improved its by-catch monitoring, with an additional survey complementing the reporting under the common fisheries policy. The country has also reduced the incidental by-catch of grey seals and sea birds, most likely by increasing the selectivity of fishing nets.

Estonia's updated programme of measures was assessed as strongly adequate for biodiversity (D1), non-indigenous species (D2), hydrographical changes (D7) and energy, including underwater noise (D10). For instance, Estonia adequately covered pressures for biodiversity (D1), establishing new measures to reduce by-catch of vulnerable species through new technologies and restrictions on fishing licences.

In addition, Estonia stood out for measures on hydrographical changes (D7) by conducting a thorough assessment of pressures likely to permanently alter hydrographical conditions, which resulted in the introduction of new measures to address the impact of infrastructure development, offshore installations and mineral extraction.

Measures on food webs (D4), eutrophication (D5) and contaminants (D8) and contaminants in seafood (D9), however, only partially address environmental pressures, indicating potential for improvement on these specific descriptors.

2025 priority action

- Step up implementation of the IAS Regulation, including with regard to enforcement and capacity of inspection authorities.

Strategy Framework Decision (Directive 2008/56/EC) and Commission Decision (EU) 2017/848 (OJ C, C/2024/2078, 11.3.2024), http://data.europa.eu/eli/C/2024/2078/oj.

([62]) https://environment.ec.europa.eu/system/files/2023-04/C_2023_2203_F1_COMMUNICATION_FROM_COMMISSION_EN_V5_P1_2532109.PDF.

([63]) https://nature-art17.eionet.europa.eu/article17/habitat/report/?period=5&group=Coastal+habitats&country=EE&region=.

([64]) *Article 17 National Summary Factsheet – Estonia*, https://circabc.europa.eu/faces/jsp/extension/wai/navigation/container.jsp.

Prevention and management of invasive alien species

IAS are a major cause of biodiversity loss in the EU. Besides inflicting direct and indirect damage on nature and the economy, some IAS also carry and spread infectious diseases, posing a threat to humans and wildlife. Regulation (EU) No 1143/2014 (the IAS Regulation) aims to prevent, minimise and mitigate the adverse impacts of IAS on biodiversity. It focuses action on a list of IAS of EU concern (the 'Union list'), which is regularly updated ([65]).

The third update of the Union list ([66]) entered into force on 2 August 2022. The fourth update is in preparation.

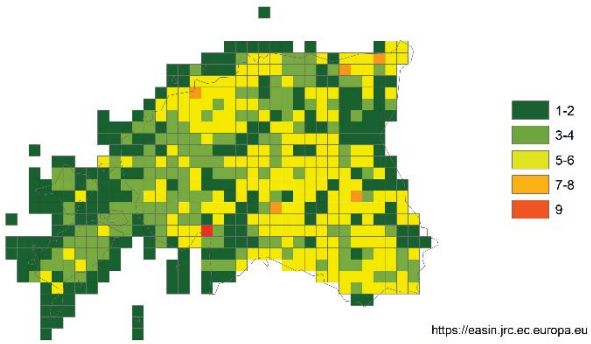
The IAS Regulation ([67]) currently lists 88 species subject to restrictions on keeping, importing, selling, breeding, growing and releasing into the environment. Member States are required to take measures to (i) prevent the introduction of IAS, (ii) ensure early detection and rapid eradication of IAS and (iii) manage species that are already widespread on their territory.

This aligns with target 6 of the GBF to reduce the introduction of IAS by at least 50 % by 2030 and minimise their impact.

Preventing the introduction and spread of IAS, and managing them, including through eradication and control, can result in a substantial cost saving. Studies estimate that the total cost of IAS in Europe (damages and management) amounted to EUR 116.61 billion between 1960 and 2020 ([68]). More recent studies have put this cost at USD 28 billion per year in the EU, increasing to USD 148.2 billion by 2040 ([69]), and at USD 423 billion annually at the global level ([70]).

The total number of IAS of Union concern in the country is 17. This includes 11 species recorded in the previous EIR (2021) and 6 additions. Of these additions, four were already on the Union concern list in 2021, and two were added later under Commission Implementing Regulation (EU) 2022/1203.

Figure 15: Number of IAS of EU concern, based on available georeferenced information for Estonia, 2024



Ecosystem assessment and accounting

The BDS calls on Member States to better integrate biodiversity considerations into public and business decision-making at all levels and to develop natural capital accounting.

Similarly, target 14 of the GBF ([71]) aims to ensure the full integration of biodiversity and its multiple values into policy and planning and, as appropriate, national accounting. This requires effective and coherent biodiversity observation and reporting on ecosystem

([65]) Commission Implementing Regulation (EU) 2016/1141 of 13 July 2016 adopting a list of invasive alien species of Union concern pursuant to Regulation (EU) No 1143/2014 of the European Parliament and of the Council (OJ L 189, 14.7.2016, p. 4), as amended by Commission Implementing Regulations (EU) 2017/1263, (EU) 2019/1262 and (EU) 2022/1203, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02016R1141-20220802&from=EN.

([66]) Commission Implementing Regulation (EU) 2022/1203 of 12 July 2022 amending Implementing Regulation (EU) 2016/1141 to update the list of invasive alien species of Union concern (OJ L 186, 13.7.2022, p. 10), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R1203.

([67]) Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species (OJ L 317, 4.11.2014, p. 35).

([68]) Haubrock, P. J., Turbelin, A. J., Cuthbert, R. N. et al., 'Economic costs of invasive alien species across Europe', *NeoBiota*, Vol. 63, 2021, pp. 153–190.

([69]) Henry, M., Leung, B., Cuthbert, R. N. et al., 'Unveiling the hidden economic toll of biological invasions in the European Union', *Environmental Sciences Europe*, Vol. 35, No 1, 2023, p. 43.

([70]) IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services), *Summary for Policymakers – Invasive alien species assessment*, 2023, https://www.ipbes.net/document-library-catalogue/summary-policymakers-invasive-alien-species-assessment.

([71]) Decision 15/4 adopted by the Conference of the Parties to the Convention on Biological Diversity: Kunming–Montreal global biodiversity framework (https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf).

condition in the EU ([72]).

The (EU) No 691/2011 on European environmental economic accounts [73] introduces new requirements for Member States to report on the condition of ecosystems including urban ecosystems, croplands, grasslands, forest and woodlands, coastal beaches, dunes and wetlands. Data reported by the Member States will feed into the second European ecosystem assessment, due in 2027, and can also be used to support policy decisions.

An ecosystem assessment is an analysis of the condition of ecosystems and the pressures acting on them, as well as the benefits that they provide to people, either directly or indirectly through the economy.

The LIFE IP Cleanest project ([74]) (2019–2028) is developing and implementing methodology for the mapping and assessment of freshwater ecosystems and their services, initially at the regional level (in north-eastern Estonia), with the potential to upscale the project to the country level. For the last five years of implementation, the project has focused on the measures in the existing water management plan, as well as on potential new solutions, such as developing remote monitoring solutions and mapping ecosystem services.

An increasing number of platforms, networks and communities of practice involve businesses in protecting biodiversity, including the EU Business & Biodiversity Platform ([75]). These platforms and communities are key tools for promoting and facilitating natural capital assessments among businesses and financial services providers.

Natural capital assessments help private businesses to better understand both the negative and positive impacts that they have on nature, and to appreciate how nature contributes to their success. Such understanding contributes to the implementation of the EU's BDS.

In 2022, Estonia received priority actions on supporting the mapping and assessment of ecosystems and their services, and ecosystem accounting development, as well as on supporting the development of national business and biodiversity platforms. Although there is some tangible progress on projects supporting monitoring solutions and ecosystem services, more work needs to be done to continue the implementation of the related 2022 priority action. There is still no Estonian business and biodiversity network member of the EU Business & Biodiversity Platform.

2025 priority action

- Support the development of the national business and biodiversity network.

([72]) European Commission: Joint Research Centre and EEA, *EU Ecosystem Assessment – Summary for policymakers*, Publications Office of the European Union, Luxembourg, 2021, https://op.europa.eu/en/publication-detail/-/publication/81ff1498-b91d-11eb-8aca-01aa75ed71a1/language-en.

([73]) Proposal for a regulation of the European Parliament and of the Council amending Regulation (EU) No 691/2011 as regards introducing new environmental economic accounts modules, COM(2022) 329 final of 11 July 2022, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2022:329:FIN.

([74]) LIFE project LIFE17 IPE/EE/000007.

([75]) The EU Business & Biodiversity Platform (https://green-business.ec.europa.eu/business-and-biodiversity_en) aims to promote the business case for biodiversity to businesses and financial institutions through workshops, seminars, reports and a cross-media communication strategy.

3. Zero pollution

Clean air

EU clean air policies and legislation have successfully reduced emissions of key air pollutants and significantly improved air quality, which is now moving towards the levels recommended by the World Health Organization (WHO). This has resulted in clear health benefits and reduced adverse impacts on ecosystems and biodiversity. However, to achieve the WHO-recommended levels, more efforts are needed, including full compliance with EU legislation. To guide these efforts, the EU zero pollution action plan sets targets for 2030 relative to 2005. These are to reduce the health impacts of air pollution by 55 % and to reduce the EU ecosystems threatened by air pollution by 25 %.

The EU has developed a comprehensive suite of air quality policies ([76]). These set health-based EU air quality standards ([77]) and stipulate Member States' national emission reduction commitments ([78]) for several air pollutants.

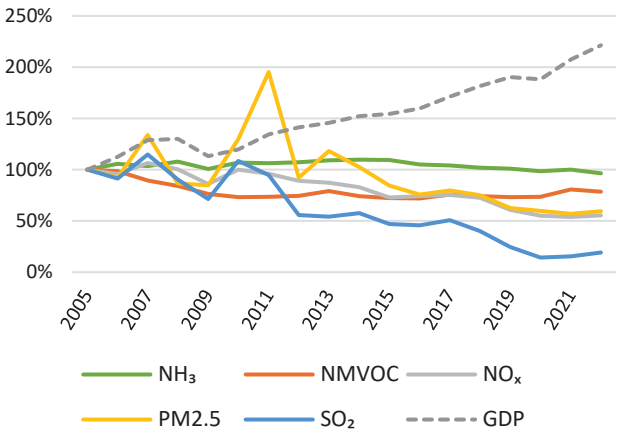
The air quality in Estonia is generally good, with some exceptions.

The latest available annual estimates (for 2022) by the EEA ([79]) for Estonia attribute 100 deaths each year (or 880 years of life lost (YLL)) to fine particulate matter ($PM_{2.5}$) ([80]), 10 deaths each year (or 180 YLL) to nitrogen dioxide (NO_2) ([81]) and 30 deaths each year (or 1 300 YLL) to ozone ([82]).

The emissions of several air pollutants have decreased significantly in Estonia since 2005, while GDP growth has continued (see Figure 16). According to the inventories submitted under Article 10(2) of the National Emission Reduction Commitments Directive (NECD) ([83]) in 2024, Estonia has met its emission reduction commitments for 2020–2029 for air pollutants nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOC), sulphur dioxide (SO_2), ammonia (NH_3) and $PM_{2.5}$. According to the latest projections submitted under Article 10(2) of the NECD in 2023, Estonia is projected to meet its emission reduction commitments for 2030 onwards for NO_x, NMVOC, SO_2, NH_3 and $PM_{2.5}$.

Estonia submitted its updated national air pollution control programme (NAPCP) to the Commission on 30 March 2023.

Figure 16: Emission trends of main pollutants / GDP in Estonia (%), 2005–2022



Source: EEA, 'National air pollutant emissions data viewer 2005–2022', 25 June 2024, https://www.eea.europa.eu/en/topics/in-depth/air-pollution/national-air-pollutant-emissions-data-viewer-2005-2022.

([76]) European Commission, 'Air', European Commission website, https://environment.ec.europa.eu/topics/air_en.

([77]) European Commission, 'EU air quality standards', European Commission website, https://environment.ec.europa.eu/topics/air/air-quality/eu-air-quality-standards_en.

([78]) European Commission, 'Reducing emissions of air pollutants', European Commission website, https://environment.ec.europa.eu/topics/air/reducing-emissions-air-pollutants_en.

([79]) EEA, *Harm to human health from air pollution in Europe: Burden of disease 2024*, briefing No 21/2024, Copenhagen, 2024, https://www.eea.europa.eu/en/analysis/publications/harm-to-human-health-from-air-pollution-2024.

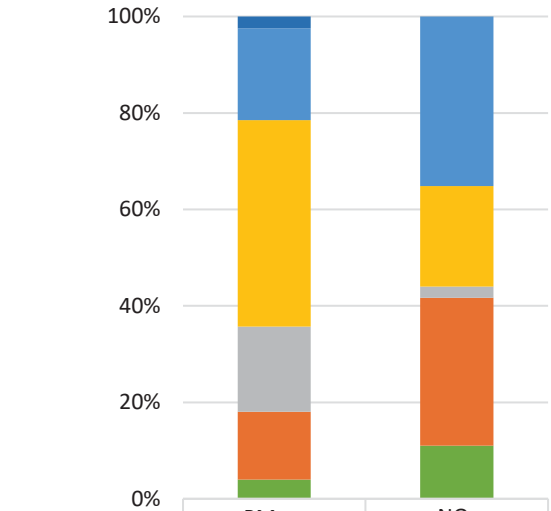
([80]) Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM_{10} refers to particles with a diameter of 10 µm or less. $PM_{2.5}$ refers to particles with a diameter of 2.5 µm or less. PM is emitted from many human sources, including combustion.

([81]) Nitrogen dioxide (NO_2) here pertains to a group of gases called NO_x, which also comprises nitrogen monoxide (NO). NO_x is emitted during fuel combustion – for example, from industrial facilities and the road transport sector.

([82]) Low-level ozone is produced by photochemical action on pollution. This year, for the first time, the impact of long-term exposure to ozone has also been taken into account. In previous analysis by the EEA, only the impact of short-term exposure was estimated.

([83]) Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC (OJ L 344, 17.12.2016, p. 1), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.344.01.0001.01.ENG.

Figure 17: $PM_{2.5}$ and NO_x emissions by sector in Estonia (%), 2022



	$PM_{2.5}$	NO_x
Waste	2,44%	0,08%
Transport	19,03%	35,08%
Residential, commercial & institutional	42,83%	20,86%
Manufacturing and extractive industry	17,68%	2,29%
Energy supply	14,03%	30,69%
Agriculture	3,98%	11,01%

Source: EEA, 'National air pollutant emissions data viewer 2005–2022', 25 June 2024, https://www.eea.europa.eu/en/topics/in-depth/air-pollution/national-air-pollutant-emissions-data-viewer-2005-2022.

In 2023, no exceedances above the limit values set by the Ambient Air Quality Directive (AAQD) ([84]) were registered in Estonia ([85]).

In the 2022 EIR, Estonia received two priority actions. The first priority action was to further reduce emissions in the context of the NAPCP. Estonia has made substantial progress on this, as the latest reported data show that the 2020–2029 emission reduction commitments have been met and that the emission reduction commitments for 2030 onwards are projected to be reached. The second priority action was to ensure full compliance with EU air quality standards and maintain downward emission trends. Based on the latest data, Estonia has made substantial progress in this regard. Full compliance has been ensured for all limit values and target values. Since 2019, downward emission trends have been reported for all main pollutants except for NMVOC, which requires further action.

2025 priority actions

- As part of the NAPCP, take action to reduce emissions of air pollutants.
- Ensure full compliance with the current AAQD standards, also in light of future stricter requirements under the revised AAQD.

Industrial emissions

The main objectives of EU policy on industrial emissions are to:

(i) protect air, water and soil and to prevent harmful effects on human health and the environment;
(ii) prevent and manage waste;
(iii) improve energy and resource efficiency, including water;
(iv) contribute to decarbonisation.

The cornerstone of the policy is the Industrial Emissions Directive (IED), which was revised in 2024 ([86]). The revision improves the directive's contribution to the zero pollution objective. It has a strong focus on innovation, and builds solid links between depollution, decarbonisation and circularity, making it a key regulatory tool to accompany the green transformation of EU industry by 2050.

The overview of industrial activities regulated by the IED below is based on data reported to the EU Registry in 2022 ([87]).

In Estonia, around 145 industrial installations are required to have a permit based on the IED, the majority being in the intensive rearing of poultry and pigs sector (39 %), followed by the waste management sector (including landfill) (15 %), the energy sector (13 %) and the chemical sector (7 %).

Figure 18 shows the damage to health and the environment due to the main industrial air pollutants. As this depends on, among other factors, the size of the industrial sector in each Member State, the figure also

([84]) Directive 2008/50/EU of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe (OJ L 152, 11.6.2008, p. 1), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0050.

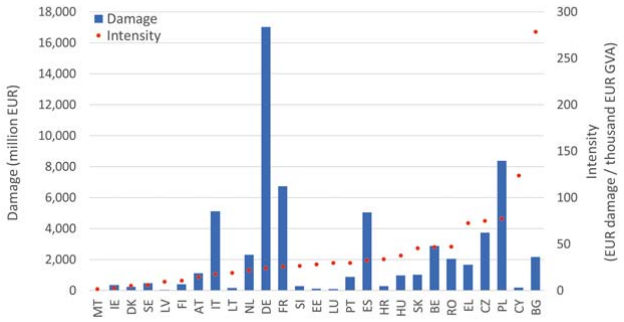
([85]) EEA, Eionet Central Data Repository (https://cdr.eionet.europa.eu/).

([86]) Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010, p. 17), as amended by Directive (EU) 2024/1785 of the European Parliament and of the Council of 24 April 2024, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02010L0075-20240804&qid=1725983863299.

([87]) EEA, European Industrial Emissions Portal, https://industry.eea.europa.eu/, 2022 being the baseline year for all reports.

shows the ratio between the damage and the industrial activity (expressed in gross value added (GVA)), which gives an indication of the emissions 'intensity'. Although Estonia has relatively low damage (4th lowest in the EU), it is above the EU average of EUR 27.5/EUR 1 000 GVA in emissions intensity (14th highest in the EU). The main industrial contributor to emissions to air ([88]) is the energy sector.

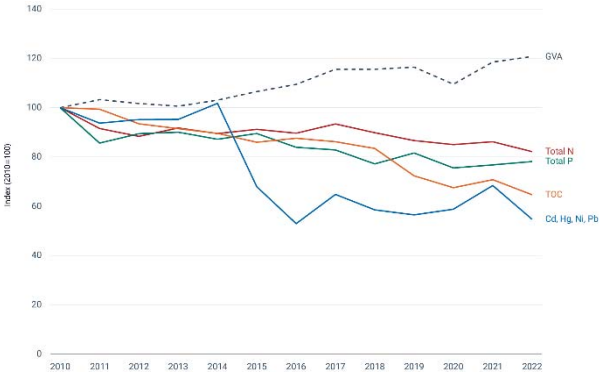
Figure 18: Industrial air pollution damage and intensity per Member State, 2021



Source: EEA, 'Industrial pollution intensity indicators – EU large industry air pollution damage costs intensity', European Industrial Emissions Portal, 2024, https://industry.eea.europa.eu/analyse/industrial-emissions-indicator.

Overall, the industrial emissions to water in the EU have decreased over time for all the main pollutants. On average in the EU, they appear to be decoupled from the industrial activity, which has increased over the same period (expressed in GVA), as shown in Figure 19.

Figure 19: Industrial releases of pollutants to water and industrial activity in the EU-27

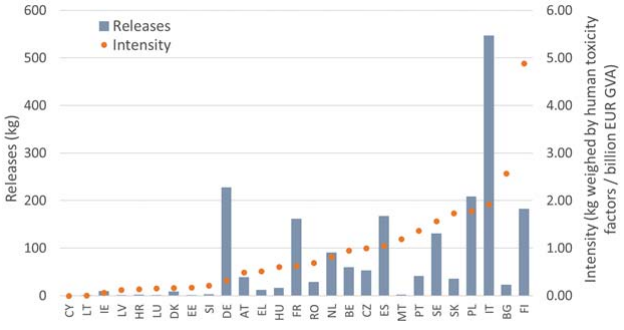


NB: Cd, cadmium; Hg, mercury; Ni, nickel; Pb, lead; TOC, total organic carbon; total N, total nitrogen; total P, total phosphorous.

Source: EEA, 'Industrial pollutant releases to water in Europe', 30 May 2024, https://www.eea.europa.eu/en/analysis/indicators/industrial-pollutant-releases-to-water.

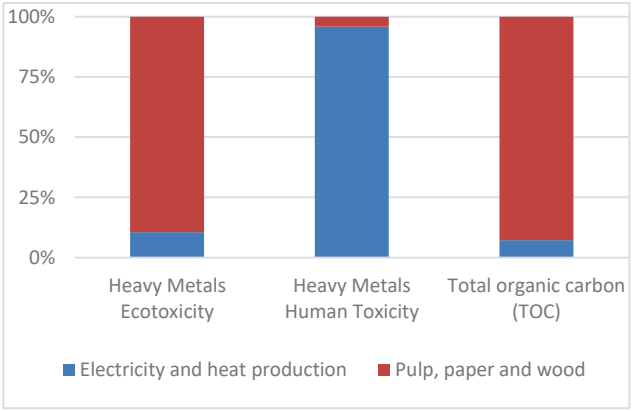
Concerning Estonia in particular, Figure 21 shows the industrial emissions of heavy metals to water, taking into account the human toxicity of each metal, as well as emissions intensity, based on its ratio with industrial activity (expressed in GVA). Estonia has the fifth lowest amount of emissions of heavy metals to water and is the eighth lowest for emissions intensity (below the EU average intensity of 0.864 kg/EUR 1 billion GVA). As shown in Figure 21, the main industrial contributors to emissions to water in Estonia are the energy sector and the pulp, paper and wood sector for heavy metals.

Figure 20: Industrial releases and intensity of heavy metals to water per Member State, 2022



Source: EEA, 'Industrial pollution intensity indicators – EU large industry water pollution intensity', European Industrial Emissions Portal, 2024, https://industry.eea.europa.eu/analyse/industrial-emissions-indicator.

Figure 21: Relative releases to water from industry in Estonia (%), 2022



Source: EEA, 'Industrial reporting under the Industrial Emissions Directive 2010/75/EU and European Pollutant Release and Transfer Register Regulation (EC) No 166/2006 – ver. 12.0 Sep. 2024 (tabular data)', EEA Geospatial Data Catalogue, 13 September 2024, https://doi.org/10.2909/cf5e54c1-be99-4426-bcad-baa26c4f27a0.

Estonia has been subject to an infringement procedure for not conforming with the transposition of and not correctly applying the IED since 2023, in particular on indirect release of pollutants to water.

IED provisions on public information and participation require Member States to adopt transposition legislation enabling members of the public to have access to relevant information and participate in the approval process for

([88]) European Environment Agency, LRTAP, Air pollutant emissions data viewer (Gothenburg Protocol, LRTAP Convention) 1990-2022, https://www.eea.europa.eu/en/topics/in-depth/air-pollution/air-pollutant-emissions-data-viewer-1990-2022.

potentially polluting installations. Thus, the public and non-governmental organisations (NGOs), alongside competent authorities, play a role in ensuring compliance of these permits with EU legislation. The IED contains mandatory requirements on environmental inspections, requiring a site visit to take place at least every 1–3 years, using risk-based criteria. In addition, IED enforcement provisions require Member States to determine effective, proportionate, and dissuasive penalties applicable to infringements of IED-based national provisions. In the revised directive, the provisions set that worst infringements can be sanctioned by fines of at least 3% of the annual EU turnover of the legal person. The revised IED also introduces a right to compensation for people whose health has been harmed by such infringements.

The development of best available techniques (BATs), BAT reference documents and BAT conclusions ensures effective collaboration between stakeholders and enables better implementation of the IED.

Since the 2022 EIR, the Commission has adopted BAT conclusions on (i) ferrous metal processing, (ii) textiles industry, (iii) common waste gas management and treatment systems in the chemical sector and (iv) smitheries and foundries.

The Commission relies on the efforts of national competent authorities to implement the legally binding BAT conclusions and associated BAT emission levels in environmental permits. This should result in considerable and continuous reductions in pollution.

In 2022, Estonia received priority actions to address pollution from the energy sector and the intensive rearing of poultry and pigs. Data are not yet available to assess progress towards this priority action. However, the energy sector remains among the main sources of industrial emissions.

2025 priority actions

- Complete the correct transposition of the IED 1.0.
- Reduce industrial air pollution damage and intensity.
- Address the current implementation issues related to indirect release of pollutants to water.
- Engage with industry and environmental NGOs to ensure proper contribution to and implementation of BAT conclusions and ensure timely updates to permits following the publication of BAT conclusions.
- Ensure effective public participation and access to justice in relation with the IED.

Major industrial accidents prevention – Seveso

The main objectives of EU policy on the prevention of major industrial accidents are to:

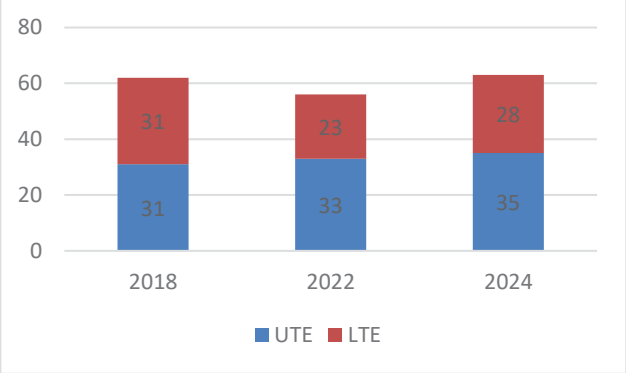
(i) control major-accident hazards involving dangerous substances, especially chemicals;
(ii) limit the consequences of such accidents for human health and the environment;
(iii) continuously improve the prevention of, preparedness for and response to major accidents.

The cornerstone of the policy is Directive 2012/18/EU (the Seveso III Directive) ([89]).

The overview below of industrial plants regulated by the Seveso III Directive ('Seveso establishments') is based on data reported on eSPIRS (e-Seveso Plants Information Retrieval System) for 2022–2024 ([90]) and the report by Estonia on the implementation of the Seveso III Directive for 2019–2022 ([91]).

In Estonia, in 2024, among the 63 Seveso establishments, 28 were categorised as lower-tier establishments and 35 as upper-tier establishments (UTEs), based on the quantity of hazardous substances likely to be present. UTEs are subject to more stringent requirements. The development of the number of Seveso establishments is presented in Figure 22.

Figure 22: Number of Seveso establishments in Estonia, 2018, 2022 and 2024



NB: LTE, lower-tier establishment.

Sources: European Commission: Directorate-General for Environment, Assessment and summary of Member States' implementation reports for Implementing Decision 2014/896/EU (implementing Directive 2012/18/EU on the control of major accident hazards involving dangerous substances), Publications Office of the European Union, Luxembourg, 2022, https://op.europa.eu/en/publication-detail/-/publication/94d57d74-735b-11ec-9136-01aa75ed71a1/language-

([89]) Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC (OJ L 197, 24.7.2012, p. 1), https://eur-lex.europa.eu/eli/dir/2012/18/oj.

([90]) https://espirs.jrc.ec.europa.eu/en/espirs/content; data extracted in September 2024.

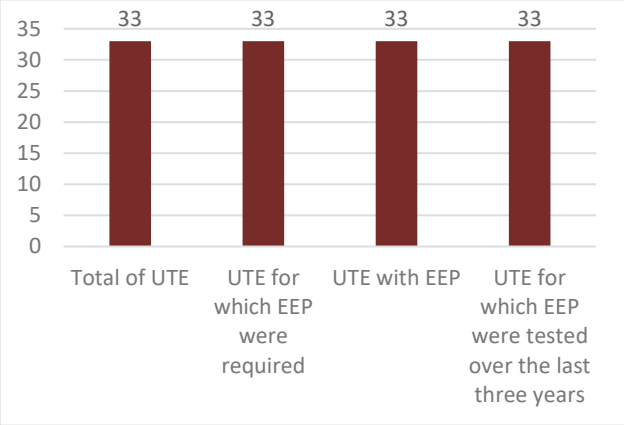
([91]) As provided for by Article 21(2) of the Seveso III Directive.

en/format-PDF/source-search; eSPIRS data, extractions from 2022 and 2024; Analysis and summary of Member States' reports on implementation of Directive 2012/18/EU on the control of major accident hazards involving dangerous substances according to the format established by Commission Implementing Decision 2014/896/EU - Publications Office of the EU, https://op.europa.eu/en/publication-detail/-/publication/9bd73087-e9b8-11ef-b5e9-01aa75ed71a1/language-en.

Member States are required to draw up external emergency plans (EEPs). These EEPs are essential to allow proper preparation and effective implementation of the necessary actions to protect the environment and the population should a major industrial accident.

In Estonia, in 2022, an EEP was required for all 33 UTEs. They all had an EEP and all of them had been tested within the last three years. The summary is shown in Figure 23.

Figure 23: Situation regarding EEPs in Estonia, 2022

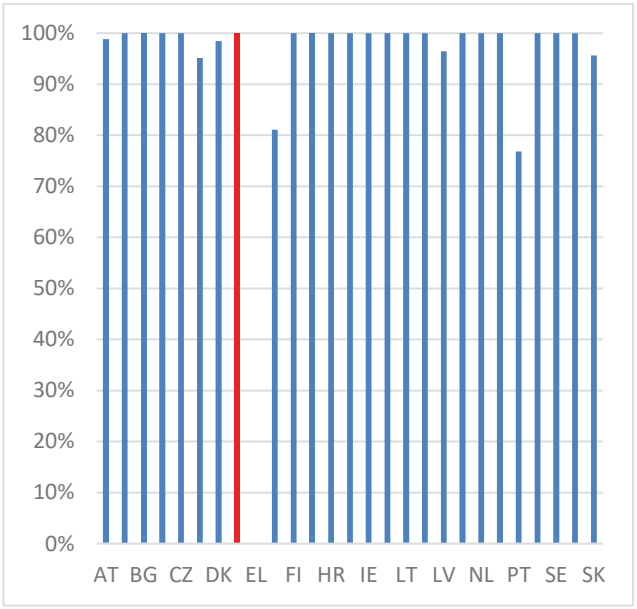


Sources: European Commission: Directorate-General for Environment, Assessment and summary of Member States' implementation reports for Implementing Decision 2014/896/EU (implementing Directive 2012/18/EU on the control of major accident hazards involving dangerous substances), Publications Office of the European Union, Luxembourg, 2022, https://op.europa.eu/en/publication-detail/-/publication/94d57d74-735b-11ec-9136-01aa75ed71a1/language-en/format-PDF/source-search; eSPIRS data, extractions from 2022 and 2024; Analysis and summary of Member States' reports on implementation of Directive 2012/18/EU on the control of major accident hazards involving dangerous substances according to the format established by Commission Implementing Decision 2014/896/EU - Publications Office of the EU, https://op.europa.eu/en/publication-detail/-/publication/9bd73087-e9b8-11ef-b5e9-01aa75ed71a1/language-en.

The information for the public referred to in Annex V to the Seveso III Directive – especially about how the public concerned will be warned if there is a major accident, appropriate behaviour in the event of a major accident and the date of the last site visit – is permanently available for all of the Seveso establishments in Estonia.

The shares of UTE for which information on safety measures and requisite behaviours was actively made available to the public in 2022 in the EU-27 are presented in Figure 24. This provision on knowledge is an important provision of the Seveso III Directive, as awareness by the public of this information may ameliorate the consequences of a major industrial accident.

Figure 24: Share of UTE for which information on safety measures and requisite behaviours was actively made available to the public per Member State (%), 2022



NB: No data available for Greece.

Sources: European Commission: Directorate-General for Environment, Assessment and summary of Member States' implementation reports for Implementing Decision 2014/896/EU (implementing Directive 2012/18/EU on the control of major accident hazards involving dangerous substances), Publications Office of the European Union, Luxembourg, 2022, https://op.europa.eu/en/publication-detail/-/publication/94d57d74-735b-11ec-9136-01aa75ed71a1/language-en/format-PDF/source-search; eSPIRS data, extractions from 2022 and 2024; Analysis and summary of Member States' reports on implementation of Directive 2012/18/EU on the control of major accident hazards involving dangerous substances according to the format established by Commission Implementing Decision 2014/896/EU - Publications Office of the EU, https://op.europa.eu/en/publication-detail/-/publication/9bd73087-e9b8-11ef-b5e9-01aa75ed71a1/language-en. No data available for Greece.

In 2022, Estonia received a priority action to strengthen control and enforcement to ensure compliance with the Seveso III Directive rules, especially those on information for the public and on EEPs. Data reported on the implementation of the directive for 2019–2022 show improvement in the number of EEPs established and reviewed for UTEs in Estonia.

Mercury Regulation

The Mercury Regulation establishes measures and conditions concerning the use and storage of and trade in mercury, mercury compounds and mixtures of mercury, the manufacture and use of and trade in mercury-added products and the management of mercury waste, in order to ensure a high level of protection of human health and the environment from anthropogenic emissions and

releases of mercury and mercury compounds. The revision of the Mercury Regulation adopted in 2024 sets out rules to address the last intentional uses of mercury in the EU by phasing out the use of dental amalgam by 1 January 2025 except when deemed strictly necessary by the dental practitioner based on the specific medical needs of the patient, and prohibiting the manufacture and export of additional mercury-containing lamps from 1 January 2026 or 1 January 2027 (depending on the lamp category).

Measures should have been put in place in Estonia to ensure a socially and economically sound phase-out, including an adequate reimbursement of the alternatives to dental amalgam through the health insurance scheme and the training of dental practitioners. The Commission is monitoring whether the phase-out has taken place under the terms and conditions of the regulation. Estonia will also need to ensure that the manufacture and export of mercury-containing lamps are prohibited by the deadlines set out in the Mercury Regulation.

Noise

The Environmental Noise Directive ([92]) requires a common approach to avoid, prevent and reduce the harmful effects of noise. The designated authorities are responsible for making and approving noise maps and action plans for agglomerations, major roads, major railways and major airports. Member States decide on noise limits that are not set at the EU level. Nevertheless, the zero pollution action plan sets as a 2030 target a 30 % reduction compared with 2017 in the share of people chronically disturbed by transport noise.

Excessive noise from aircraft, railways and roads is one of the main causes of environmental health-related issues in the EU. It can cause ischaemic heart disease, stroke, interrupted sleep, cognitive impairment and stress ([93]).

In Estonia, environmental noise is estimated to cause at least around 40 cases of ischaemic heart disease annually ([94]) and some 2 300 people to suffer from disturbed sleep([95]).

Based on the latest full set of information analysed, Estonia has completed its noise mapping of agglomerations, roads, railways and airports.

Action plans for noise management for agglomerations, roads, railways and airports must be updated and submitted to the Commission every five years. The deadline for reporting noise action plans under the most recent reporting cycle was 18 January 2025; these plans have not been assessed yet.

Estonia received no priority action in the 2022 EIR as regards noise.

2025 priority action

- Complete and implement action plans on noise management.

Water quality and management

EU legislation and policy requires that the impact of pressures on transitional waters, coastal waters and fresh water (including surface waters and groundwater) be significantly reduced. Achieving, maintaining or enhancing a good status of waterbodies as defined by the Water Framework Directive (WFD) will ensure that EU citizens benefit from good-quality and safe drinking and bathing water. It will further ensure that the nutrient cycle (nitrogen and phosphorus) is managed in a more sustainable and resource-efficient way.

Water Framework Directive

The WFD ([96]) is the cornerstone of EU water policy in the 21st century ([97]). The WFD and other water-related directives ([98]) form the basis of sustainable and integrated

([92]) Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise – Declaration by the Commission in the Conciliation Committee on the directive relating to the assessment and management of environmental noise (OJ L 189, 18.7.2002, p. 12), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32002L0049.

([93]) WHO, *Environmental Noise Guidelines for the European Region*, Copenhagen, 2018, https://www.who.int/europe/publications/i/item/9789289053563.

([94]) These figures are an estimation by the EEA based on (i) the data reported by Member States on noise exposure covered by Directive 2002/49/EC for the round of noise mapping of 2022; (ii) European Topic Centre on Air Pollution, Transport, Noise and Industrial Pollution (ETC/ATNI), *Noise Indicators under the Environmental Noise Directive 2021: Methodology for estimating missing data*, Eionet report ETC/ATNI No 2021/06, Kjeller, 2021; and (iii) the methodology for health impact calculations in European Topic Centre on Air Pollution and Climate Change Mitigation (ETC/ACM), *Implications of environmental noise on health and wellbeing in Europe*, Eionet report ETC/ACM No 2018/10, Bilthoven, 2018, https://www.eionet.europa.eu/etcs/etc-atni/products/etc-atni-reports/eionet_rep_etcacm_2018_10_healthimplicationsnoise.

([95]) More information on the adverse health effects of noise pollution is available at: https://www.eea.europa.eu/themes/human/noise/noise-2

([96]) https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060.

([97]) https://environment.ec.europa.eu/topics/water_en.

([98]) These include the Groundwater Directive (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32006L0118), the Environmental Quality Standards Directive (https://eur-lex.europa.eu/eli/dir/2008/105/oj), the Floods Directive (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32007L0060), the Bathing Water

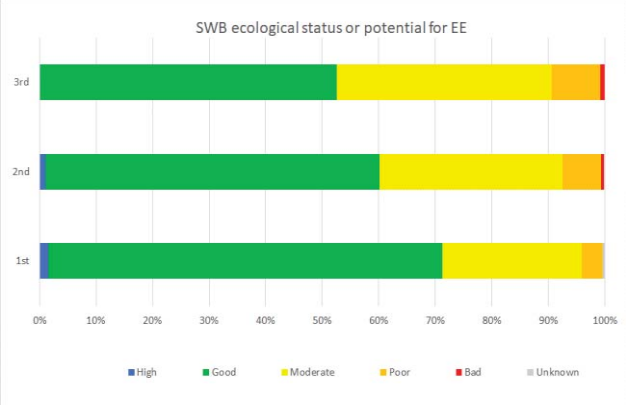
water management in the EU. They aim to achieve a high level of protection of water resources, prevention of further deterioration and restoration to good status. These objectives are very important for the EU's competitiveness, strategic autonomy and security, yet have become even more challenging in the face of climate change affecting our precious water resources.

The WFD establishes a procedural framework for reaching good surface water ecological and chemical status and good groundwater quantitative and chemical status. This implies monitoring and classification of all waterbodies, assessment of pressures and impacts and identification of the most cost-effective measures to achieve the objectives of the directive. The directive dates from 2000 and set an initial deadline of 2015 for achieving its objectives, with the option to extend the deadline to the end of 2027. Every six years, Member States must report their river basin management plans (RBMPs) to the Commission. They should cover river basin districts in their countries, some of which may be shared with other countries. The Commission has assessed the third cycle of RBMPs, which were to be submitted by March 2022, and reported its findings to the European Parliament and to the Council on 4th February 2025.

Estonia's three river basin districts contain 746 surface waterbodies, mainly river tributaries, and 31 groundwater bodies. Most surface waterbodies are natural, with only around 7.1 % being heavily modified and 5.7 % artificial. Heavily modified water and artificial waterbodies must reach good ecological potential rather than good ecological status, which means that all measures must be taken to mitigate the adverse impact of the sustainable human development activities causing the waterbody to be heavily modified / artificial, while not significantly affecting these activities.

Figures 25–28 show the change in ecological status/potential ([99]) and chemical status of surface waters, and the quantitative and chemical status of groundwater in 2010, 2015 and 2021. It follows from the assessment of the third RBMPs that the ecological status/potential of surface waterbodies has deteriorated since the second RBMPs, with only 53 % having good ecological status/potential. For chemical status, the situation has not improved since the second RBMPs, with only 9.7 % of surface waterbodies classified as having good chemical status. For 83 % of surface waterbodies, the status remains unknown, despite it being more than 20 years since the entry into force of the directive. None of the 16 coastal waters reach good ecological or good chemical status.

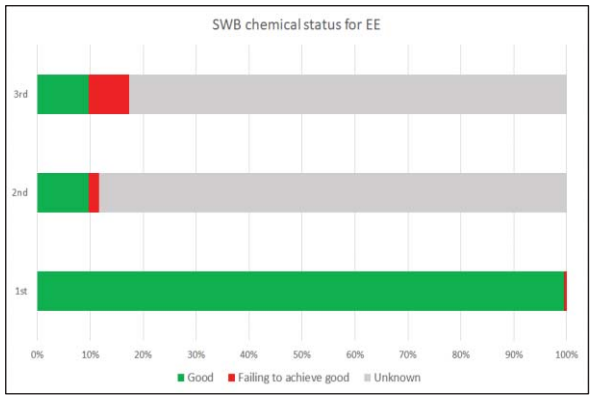
Figure 25: Ecological status/potential of surface waterbodies in each RBMP cycle (%)



Only 53 % of the surface waterbodies have good or better ecological status/potential.

The most significant pressure identified is diffuse pollution; more precisely, the problem is nutrient pollution, which affects 93 % of the waterbodies.

Figure 26: Chemical status of surface waterbodies in each RBMP cycle (%)



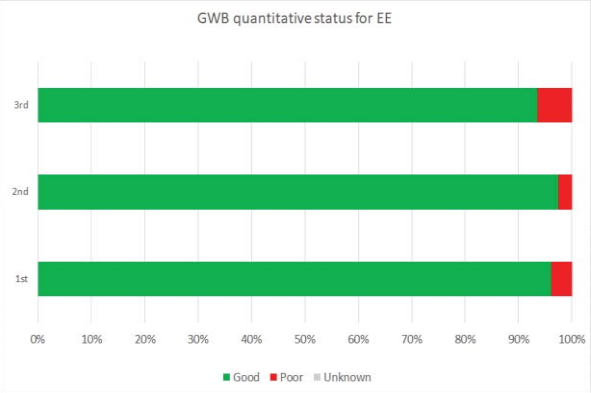
Failure to achieve good chemical status is mainly due to two specific priority substances: mercury and polybrominated diphenyl ethers. Both pose significant threats to humans and the aquatic environment, and they belong to ubiquitous, persistent, bioaccumulative and toxic substances. In the second RBMPs, in addition to mercury, other metals (cadmium, lead, nickel) and two pesticides (cybutryne and dichlorvos) were causing the failure. However, the picture is far from being complete since a very large proportion (83 %) of the waterbodies

Directive (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32006L0007), the Urban Wastewater Treatment Directive (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31991L0271), the new Drinking Water Directive (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020L2184), the Nitrates Directive (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A31991L0676), the MSFD (https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32008L0056) and the IED (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32010L0075).

([99])

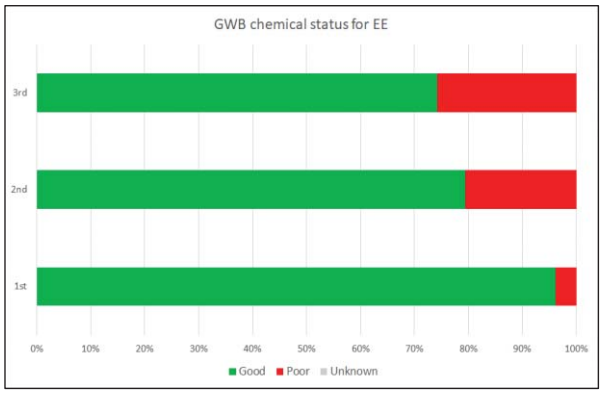
were not assessed for chemical status, and therefore marked as having unknown status.

Figure 27: Quantitative status of groundwater bodies in each RBMP cycle (%)



Only two groundwater bodies (6.5 %) have poor quantitative status, although two more are identified as being at risk of failing to remain in good quantitative status by 2027 because of ecological decreases in associated surface waters, distortion of the water balance and lowering of water tables. Furthermore, water abstraction is seen as one of the key pressures on groundwater in Estonia.

Figure 28: Chemical status of groundwater bodies in each RBMP cycle (%)



The situation has not changed much since the second RBMPs, with eight groundwater bodies failing to achieve good chemical status. Failure is mostly due to mining of oil shale, industry and agriculture. Other reasons are reduced ecology of associated surface waters, deterioration of water quality in protected drinking water areas, and saline or other intrusion that might be linked to the overabstraction of groundwater bodies adjacent to the coast. The main pollutants are chemical oxygen demand, ammonium (from chemical fertilisers in agriculture), mono-basic phenols, aminomethylphosphonic acid (a metabolite from glyphosate) and sulphate. As regards nitrates, the trend is unclear, but data reported under the Nitrates Directive show that nitrate concentrations exceed the maximum allowable concentration in around 3 % of monitoring stations.

Until the end of 2027, Member States can still apply time-related exemptions, subject to providing evidence of compliance with the strict criteria set out in the WFD. After 2027, the possibilities for applying exemptions will be much more limited.

The 2022 EIR identified the following priority actions.

- Assess new physical modifications of waterbodies in line with Article 4(7) of the WFD.
- Continue efforts to tackle agricultural and non-agricultural pollution in waterbodies and continue efforts to establish ecological flows for all relevant waterbodies.

Estonia has made limited progress. Nevertheless, in the context of the third RBMPs, it is positive to note that most of the measures set out in the third RBMPs are allocated to agricultural producers, with a total cost of EUR 632 million. Estonia has also mapped measures to reduce levels of mercury and several other priority substances in surface waters, fish or sediment (polybrominated diphenyl ethers, cadmium, anthracene, thiophene and phenylene monomers, lead, cybutryne, dichlorvos, fluoranthene, benzo(a)pyrene, benzo(g,h,i)perylene, perfluorooctane sulfonate, polycyclic aromatic hydrocarbons, nickel).

2025 priority actions

Without prejudice to the list of recommended actions in the Commission report to the European Parliament and to the Council on the assessment of the third RBMPs, the following priority actions can be highlighted.

- Improve river continuity and ecological flows, boosting efforts to introduce nature-based solutions to reduce hydromorphological pressures.
- Ensure periodic reviews of permits for discharges, abstractions and other water uses, including hydropower pressures.
- Reduce pollution from nutrients, chemicals, metals and saline discharges.
- Better justify exemptions to the achievement of good status.
- Improve the classification of water bodies and strengthen monitoring systems.
- Develop more robust programmes of measures, tackle obstacles identified in the implementation of measures and ensure adequate financing for implementation, including through better use of the cost recovery and polluter pays principle.

Floods Directive

Every six years, following the same reporting cycle as the RBMPs, all Member States report their flood risk management plans (FRMPs), based on the flood hazard and risk maps (FHRMs) and the preliminary flood risk assessments drawn up during the second cycle (2016–2021).

The Commission assessed the FRMPs and reported its findings to the European Parliament and to the Council on 4th February 2025, together with the assessment of the RBMPs.

The analysis of Estonia's RBMPs has identified nutrients from agriculture as an important pressure on groundwater / surface waters that is affecting these waters' good status and as one of the main factors in not meeting the WFD objectives.

The main progress identified in the assessment of the three Estonian second-cycle FRMPs relate to a more detailed description of objectives and inclusion of indicators to evaluate progress. The second FRMPs also contain a clear description of a qualitative cost–benefit assessment methodology used to prioritise measures. In terms of climate-change-related impacts, more data have been collected and updated forecasts have been made.

2025 priority actions

Estonia should further improve flood management and:

- FRMPs should provide details on how the FHRMs were used in the choice of measures and how to consider pluvial flooding.
- Better explain the choice and implementation of flood prevention and protection measures (prioritisation, monitoring, costs of measures).

Drinking Water Directive

The recast Drinking Water Directive is now applicable, and Member States were required to transpose its provisions into their national legal systems by 12 January 2023. Since the entry into force of the recast directive, the Commission has adopted several delegated and implementing acts establishing (i) a watch list of substances and compounds of concern for drinking water ([100]), (ii) a methodology for measuring microplastics in drinking water ([101]) and (iii) an EU system for testing and approving materials that will be allowed to be in contact with drinking water ([102]). Member States will have to take these various Commission acts into account when implementing the recast directive.

Finally, the Commission has now received data from Member States on the quality of drinking water in 2017–2019.

The quality of drinking water (supplied by large water suppliers) in Estonia does not give rise to concern ([103]). From January 2026, the European quality standards for per- and polyfluoroalkyl substances in drinking water will apply, ensuring harmonised Member States' reporting of per- and polyfluoroalkyl substances monitoring data in the future.

Bathing Water Directive

The Bathing Water Directive requires Member States to monitor and assess bathing water. It requires that, during the bathing season, Member States disseminate to the public information on bathing water quality actively and promptly. In particular, notices banning or advising against bathing should be rapidly and easily identifiable.

Figure 29 shows that in 2023, out of the 63 Estonian bathing waters, 43 (66.2 %) were of excellent quality, 12 bathing waters (18.5 %) were of good quality and 6 bathing waters (9.2 %) were of sufficient quality; 2 bathing waters (3.1 %) were found to be of poor quality. Detailed information on Estonian bathing waters is available from a national portal ([104]) and through an interactive map viewer of the EEA ([105]).

([100]) https://environment.ec.europa.eu/publications/implementing-decision-drinking-water-directive-watch-list_en.

([101]) Commission Delegated Decision (EU) 2024/1441 of 11 March 2024 supplementing Directive (EU) 2020/2184 of the European Parliament and of the Council by laying down a methodology to measure microplastics in water intended for human consumption (notified under document C(2024) 1459) (OJ L, 2024/1441, 21.5.2024), http://data.europa.eu/eli/dec_del/2024/1441/oj.

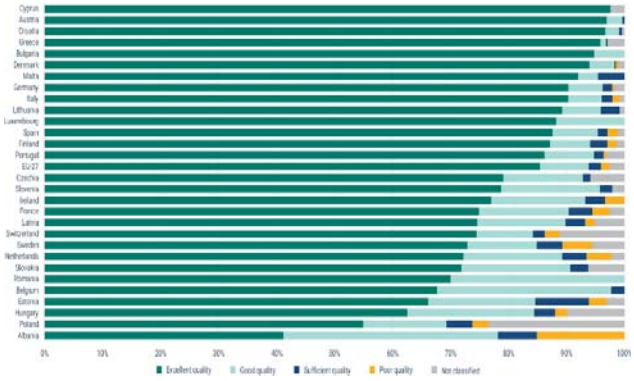
([102]) OJ L, 2024/365, 23.4.2024, http://data.europa.eu/eli/dec_impl/2024/365/oj; OJ L, 2024/367, 23.4.2024, http://data.europa.eu/eli/dec_impl/2024/367/oj; OJ L, 2024/369, 23.4.2024, http://data.europa.eu/eli/reg_del/2024/369/oj; OJ L, 2024/368, 23.4.2024, http://data.europa.eu/eli/dec_impl/2024/368/oj; OJ L, 2024/370, 23.4.2024, http://data.europa.eu/eli/reg_del/2024/370/oj; OJ L, 2024/371, 23.4.2024, http://data.europa.eu/eli/reg_del/2024/371/oj; see the Commission web page on all six delegated acts for more information (https://environment.ec.europa.eu/publications/delegated-acts-drinking-water-directive_en).

([103]) In summary, the compliance for all parameter groups in Estonia was at least 99.77 % in 2017, 99.84 % in 2018 and 98.92 % in 2019.

([104]) http://vtiav.sm.ee/index.php/?active_tab_id=SV.

([105]) EEA, 'State of bathing water', EEA website, 2024, https://www.eea.europa.eu/en/topics/in-depth/bathing-water/state-of-bathing-water.

Figure 29: Bathing water quality per Member State, and Switzerland and Albania (%), 2023



Source: EEA, *European Bathing Water Quality in 2023*, briefing No 04/2024, Copenhagen, 2024, https://www.eea.europa.eu/publications/european-bathing-water-quality-in-2023/.

Nitrates Directive

The Nitrates Directive ([106]) aims to protect water quality across Europe by preventing nitrates from agricultural sources that can pollute groundwater and surface waters and by promoting the use of good farming practices.

The latest Commission report on the implementation of the Nitrates Directive ([107]), referring to 2016–2019 ([108]), warns that nitrates are still causing harmful pollution to water in the EU. Excessive nitrates in water are harmful to both human health and ecosystems, causing oxygen depletion and eutrophication. Where national authorities and farmers have cleaned up waters, it has had a positive impact on drinking water supply and biodiversity, and on the sectors such as fisheries and tourism that depend on them. Nevertheless, excessive fertilisation remains a problem in many parts of the EU.

The report on the implementation of the Nitrates Directive covering 2020–2023 will be available in 2025.

2025 priority action

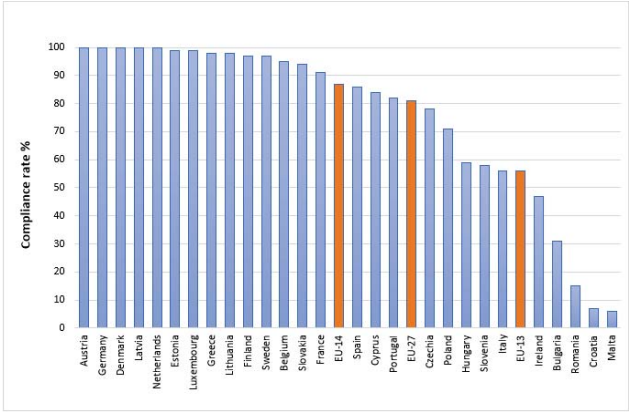
- Tackle nutrient pollution, especially nitrates from agriculture, through the implementation of the Nitrates Directive.

Urban Wastewater Treatment Directive

The Urban Wastewater Treatment Directive (UWWTD) aims to protect human health and the environment from the effects of untreated urban waste water. It therefore requires Member States to collect and treat (secondary or biological treatment) waste water in all urban areas of more than 2 000 people, and to apply a more stringent treatment than secondary, with nitrogen and/or phosphorus removal, to the waste water generated in urban areas, also known as agglomerations, of more than 10 000 people, before they are discharged into waters and their catchments, when they are sensitive to nitrogen and/or phosphorus (i.e. eutrophic or tending to become eutrophic).

Overall, in Estonia, the compliance rate was 99 % in 2020. Only two agglomerations, generating 22 286 population equivalent (p.e.) of urban waste water, did not comply with the requirements of the directive.

Figure 30: Proportion of urban waste water that fully complies with the UWWTD (%), 2020[109]



Source: European Commission: Directorate-General for Environment, Fribourg-Blanc, B., Dhuygelaere, N., Berland, J. and Imbert, F., 12th technical assessment of UWWTD implementation – Final version, Publications Office of the European Union, 2024, 12th technical assessment of UWWTD implementation - Publications Office of the EU

An infringement proceeding has been open against Estonia since February 2024 for non-compliance with the requirements of the directive in respect of discharges of industrial waste water into urban wastewater treatment plants ([110]). It is essential that Estonia takes the necessary measures to fully transpose and comply with the requirements of the directive.

This is all the more important as the directive has been revised in order to, among other things, strengthen existing treatment standards and establish an additional treatment of micropollutants in urban waste water. Other new requirements relate to moving towards the energy neutrality of the sector, establishing an EPR system to ensure sustainable financing of micropollutant treatment by the most polluting industries and ensuring access to sanitation, especially for vulnerable and marginalised groups. Estonia has until 31 July 2027 to transpose the new directive into its national legal system.

Since the 2019 and 2022 priority actions were not fully implemented, they are reproposed. An action stemming from the Estonia-specific annex to the abovementioned Commission report on the implementation of the Nitrates Directive has been added.

([106]) https://environment.ec.europa.eu/topics/water/nitrates_en.
([107]) https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1561542776070&uri=CELEX:01991L0676-20081211.
([108]) https://environment.ec.europa.eu/topics/water/nitrates_en.
([110]) INFR(2023)2180.

2025 priority actions

- Take the necessary measures to ensure full implementation of the current urban wastewater treatment directive, taking into account the new requirements of the recast directive.

Chemicals

The EU seeks to ensure that chemicals are produced and used in a way that minimises any significant adverse effects on human health and the environment. In October 2020, the Commission published its chemicals strategy for sustainability towards a toxic-free environment ([111]), which led to some systemic changes in EU chemicals legislation. The strategy is part of the EU's zero pollution ambition – a key commitment of the European Green Deal.

The EU's chemicals legislation ([112]) provides a baseline protection for human health and the environment. It also ensures stability and predictability for businesses operating in the internal market.

Since 2007, the Commission has gathered information on the enforcement of the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation and the Classification, Labelling and Packaging (CLP) Regulation. In December 2020, the Commission assessed the Member States' reports ([113]) on the implementation and enforcement of these regulations ([114]). It is apparent from the Commission's report that there are still many disparities in the implementation of the REACH and CLP Regulations, notably in the area of law enforcement. Recorded compliance levels in Member States, generally quite stable over time, appear to be getting slightly worse. This may be because (i) enforcement authorities are becoming more effective in detecting non-compliant products/companies and (ii) more non-compliant products are being placed on the EU market.

In August 2021, the Commission published a measurable assessment of the enforcement ([115]) of the two main EU regulations on chemicals using a set of indicators on different aspects of enforcement. Since 2021, the list of chemicals subject to restrictions has been expanded as new entries have been added to Annex XVII to the REACH Regulation ([116]).

In 2023, new hazard classes were added to the CLP Regulation, and the revision of the regulation was tabled (published on 20 November 2024) ([117]). The new hazard classes cover endocrine disruptors and persistence-related hazards while the revision of the regulation encompasses new rules on online sales to better tackle non-compliances observed over the years. Also in 2023, the Conference of the Parties of the Stockholm Convention (COP) decided to include, in its Annex A (which lists banned substances), three new chemicals ([118]). The Commission is working on the delegated acts to include

([111]) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Chemicals strategy for sustainability: Towards a toxic-free environment, COM(2020) 667 final of 14 October 2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A667%3AFIN; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1), https://publications.europa.eu/resource/cellar/c6b6a31d-8359-11ee-99ba-01aa75ed71a1.0004.02/DOC_2.

([112]) Namely, Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the registration, evaluation, authorisation and restriction of chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396, 30/12/2006, p. 1), https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32006R1907; and Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02008R1272-20221217.

([113]) European Commission, *Technical assistance to review the existing Member States reporting questionnaire under Articles 117(1) of REACH and 46(2) of CLP – Final report*, Publications Office of the European Union, Luxembourg, 2020, https://circabc.europa.eu/ui/group/8ee3c69a-bccb-4f22-89ca-277e35de7c63/library/a4abce8c-8425-455f-b7e6-0ead917bde6b/details.

([114]) In line with Article 117(1) of the REACH Regulation and Article 46(2) of the CLP Regulation.

([115]) European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, *REACH and CLP Enforcement: EU-level enforcement indicators*, Publications Office of the European Union, Luxembourg, 2021, https://op.europa.eu/en/publication-detail/-/publication/e5c3e461-0f85-11ec-9151-01aa75ed71a1/.

([116]) These are substances in tattoo inks and permanent make-up, *N*,*N*-dimethylformamide, formaldehyde (and formaldehyde releasers), lead in PVC (polyvinyl chloride), siloxanes (D4, D5, D6) and, finally, microplastics.

([117]) Regulation (EU) 2024/2865 of the European Parliament and of the Council of 23 October 2024 amending Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, OJ L, 2024/2865, 20.11.2024, p.1 (Regulation - EU - 2024/2865 - EN - EUR-Lex)

([118]) These are methoxychlor, dechlorane plus and UV-328. In the case of the pesticide methoxychlor, there are no exemptions from the ban. However, for the two plastic additives, dechlorane plus and UV-328, the COP decision lists some time-limited specific exemptions.

these substances in Annex I to the Persistent Organic Pollutants Regulation by 2025 at the latest.

Responsibility for checking compliance with REACH in Estonia lies with the following authorities:

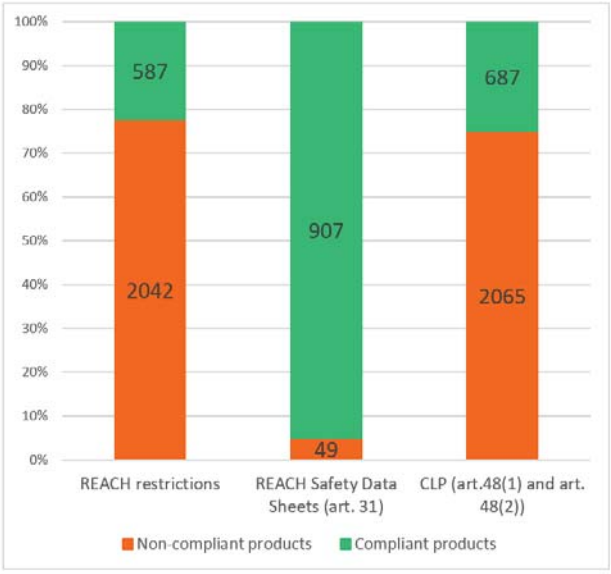
- Health Board,
- Environmental Board,
- Estonian Rescue Board,
- Consumer Protection and Technical Regulatory Authority,
- Labour Inspectorate,
- Tax and Customs Board.

The Member States' reporting exercise set out in Article 117 of the REACH Regulation and Article 46 of the CLP Regulation is conducted every five years. The results of the coming one are expected in 2025, hence the absence of new country-specific data on enforcement since 2022.

In 2022, Estonia had devised and partly implemented REACH and CLP Regulation enforcement strategies ([119]). No progress has been reported.

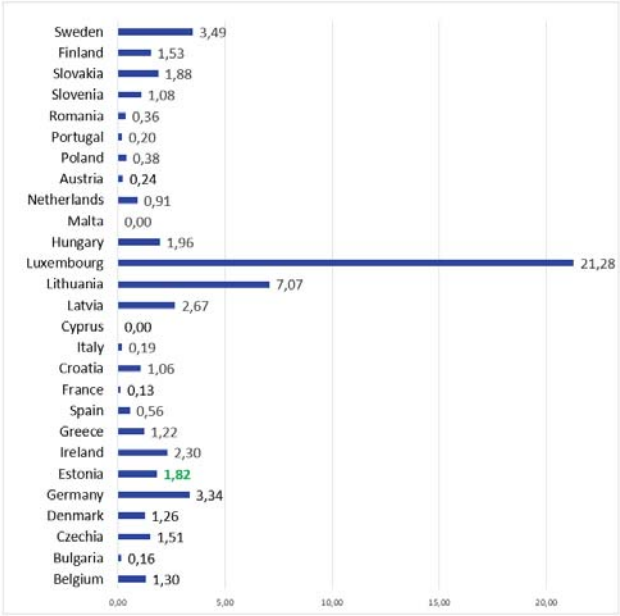
In 2020, Estonia participated in an EU coordinated enforcement project on products sold online, called the REACH-EN-FORCE (REF)-8 project ([120]). The report was adopted in November 2021, so it could not be taken into account in the previous EIR.

Figure 31: Compliance of imported products – results of the REF-8 project (%)



A risk approach was used for the targeting of control measures in order to maximise the chances of finding non-compliances. Therefore, the non-compliance rates presented above cannot be considered the average non-compliance rates of products in the EU. However, the proportion of non-compliance cases found in the REF-8 project are of concern.

Figure 32: Number of REF-8 checks performed per 100 000 inhabitants (EU average = 1.24)



Estonia's participation in the REF-8 coordinated enforcement project was around the EU average.

In 2022, Estonia received two priority actions related to upgrading administrative capacities in implementation and enforcement to move towards a policy of zero tolerance of non-compliance, and fully implementing the enforcement strategy for the CLP and REACH Regulations. In the absence of reporting since 2022, no progress has been shown and these priority actions remain valid in 2025.

([119]) European Commission, *Technical assistance to review the existing Member States reporting questionnaire under Articles 117(1) of REACH and 46(2) of CLP – Final report*, Publications Office of the European Union, Luxembourg, 2020, p. 76, https://circabc.europa.eu/ui/group/8ee3c69a-bccb-4f22-89ca-277e35de7c63/library/a4abce8c-8425-455f-b7e6-0ead917bde6b/details.

([120]) European Chemicals Agency, *REF-8 project report on enforcement of the CLP, REACH and BPR duties related to substances, mixtures and articles sold online*, Helsinki, 2021, p. 20, https://echa.europa.eu/documents/10162/17088/project_report_ref-8_en.pdf/ccf2c453-da0e-c185-908e-3a0343b25802?t=1638885422475.

2025 priority actions

- Upgrade the administrative capacities in implementation and enforcement towards a policy of zero tolerance for non-compliance.
- Increase involvement in the activities of the Forum for Exchange of Information on Enforcement of the European Chemicals Agency, including in the coordinated enforcement projects, called REFs.
- Increase customs controls and controls of products sold online with regard to compliance with chemicals legislations.

4. Climate action

The impacts of climate change have continued to increase in recent years, inflicting damage and suffering in the EU and around the world. Globally, 2023 was the hottest year on record, while Europe has been warming twice as quickly as the global average, and is now the fastest-warming continent. The frequency and severity of extreme climate events are also increasing. Against this backdrop, the EU has demonstrated its determination to implement the European Green Deal and to become climate neutral and resilient by 2050, ensuring sustainable competitiveness and supporting EU industry in the net-zero transition. The European Climate Law is the EU's response to the need for action. It sets the objective of achieving climate neutrality by 2050 and a midterm target of a reduction in GHG emissions of at least 55 % by 2030, and outlines the adaptation efforts necessary to adjust to climate change's present and future impacts. Almost all the 'Fit for 55' proposals set out in the European Green Deal have been agreed in law, and the European Commission recommended a new intermediate climate target of a 90 % reduction in emissions by 2040. In 2024, the Member States submitted updated national energy and climate plans for 2021–2030, reflecting the increased ambition of the revised EU legislation. In 2024, the European Commission also released, jointly with the EEA, the first-ever European climate risk assessment.

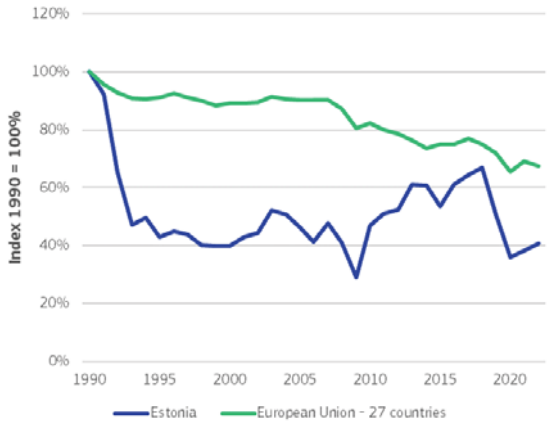
Over the last three decades, since 1990, the EU has achieved steady decreases in its emissions, reaching a running total in 2022 of – 32.5 % ([121]). However, the EU and its Member States need to step up their implementation efforts and accelerate emissions reduction to stay on track to reach their targets of a 55 % reduction in net GHG emissions by 2030 and climate neutrality by 2050. Between 1990 and 2022, net GHG emissions of Estonia decreased by 59 %, making it one of the countries with an above-average decrease.

The 'Fit for 55' legislative package reflects the need to speed up the green transition. It includes (i) strengthening and expanding the EU emissions trading system (ETS), with the creation of a new, second, ETS for transport and buildings together with a dedicated Social Climate Fund to help citizens during the transition; (ii) increasing targets under the effort sharing regulation; and (iii) a revised regulation for Land Use, Land Use Change and Forestry ([122]). The package has been fully adopted, and the Member States have been implementing the legislation.

The key strategic document at country level is the National Energy and Climate Plan (NECP) ([123]).Estonia had not submitted the NECP by the end of March 2025. The legal deadline for the submission was in June 2024.

To minimise the impacts of climate policies on vulnerable people and sectors, Estonia is using the Just Transition Fund, Modernisation Fund and will use Social Climate Fund from 2026 (for more information, see Chapter 5 'Financing').

Figure 33: Total GHG emissions (excluding international aviation), 1990–2022



The EU emissions trading system

The EU ETS is the key tool for reducing GHG emissions cost-effectively across all Member States. It is the world's biggest carbon market, covering around 40 % of the EU's total GHG emissions from electricity and heat generation, the manufacturing industry, aviation within Europe ([124]) and, from 2024, maritime transport also.

([121]) EU net domestic emissions, including the land use, land-use change and forestry (LULUCF) sector and excluding international aviation.

([122]) A full overview of the Fit for 55 package is available at https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/delivering-european-green-deal/fit-55-delivering-proposals_en.

([123]) More information about NECP is on the dedicated website https://energy.ec.europa.eu/topics/energy-strategy/national-energy-and-climate-plans-necps_en.

([124]) Flights between the EU Member States including departing flights to Norway, Iceland, Switzerland and the United Kingdom.

The system sets a limit or cap on the total amount of GHGs that can be emitted at the EU level. Within this limit, companies buy emissions allowances (one allowance gives the right to emit 1 t of CO_2 eq (carbon dioxide equivalent)), in auctions or through trading allowances with others. The cap is reduced annually to ensure that overall emissions in the sectors covered decrease over time.

The emissions under the ETS decreased by 59 % from 2005 to 2023.

In 2023, 61 % of emissions from ETS installations in Estonia came from power generation. The remainder came almost entirely from refineries (37 %). Since 2019, the power sector has been the driver of ETS emissions reductions in the country, decreasing them by 48 %. Emissions from cement and lime production still accounted for about 7 % of industry emissions in 2019, down from 26 % in the previous year, but vanished in 2022.

From 2027, a new emissions trading system, called ETS2, for buildings, road transport and additional sectors (mainly industry not covered by the current ETS) will become fully operational ([125]). Member States should have notified full transposition the provisions of the revised EU ETS Directive related to the new ETS2 into national law by 30 June 2024. Estonia did not communicate full transposition into national law by this deadline. The Commission therefore opened an infringement procedure against Estonia on 25 July 2024, by sending a letter of formal notice for failing to fully transpose the provisions into national law.

Estonia had two months to respond and address the shortcomings raised by the Commission. In the absence of a satisfactory response, the Commission may decide to issue a reasoned opinion.

The Commission also opened infringement procedures against Estonia on 25 January 2024, by sending a letter of formal notice for failing to fully transpose previous revisions of ETS Directive ([126]) into national law. Estonia has since notified partial transposition of either one or both revisions to the Commission. In the absence of a complete transposition, the Commission may decide to issue a reasoned opinion.

Effort sharing

The Effort Sharing Regulation (ESR) ([127]) covers GHG emissions from domestic transport (excluding CO_2 emissions from aviation), buildings, agriculture, small industry and waste. Emissions from these sectors account for around 60 % of the EU's domestic emissions. The regulation sets the EU-wide target to reduce emissions from the effort sharing sectors by 40 % by 2030 compared to 2005 levels. This overall target for the EU translates to binding national emission reduction targets for each Member State. Estonia's target is – 24 %.

In addition to the 2030 targets, Member States have annual GHG emissions limits (annual emission allocations), reducing every year until 2030.

There is some flexibility to take account of annual fluctuations in emissions, by trading emissions and transfers from the ETS and LULUCF.

Based on historical emissions and the most updated projections Estonia will need to implement new measures and/or use available flexibilities to achieve its 2030 ESR target. Projected gap is 10.2 percentage points to the 2030 target.

The largest contributor is the domestic transport sector, which accounted for 48 % of all effort sharing emissions in 2022.

Sustainable transport has yet to take off in Estonia. At 0.4 % in 2022, the share of battery electric vehicles in Estonia's passenger car fleet is still very low compared to EU average of 1.3 %. So too is the number of publicly accessible charging points, at 290 in 2023, or one charging point for every 13 e-vehicles (against the EU average of 1:10). Passenger cars are used for 89 % of distances travelled (EU average: 85 %). Buses and coaches, the main form of public transport, are used for 9 %. The share of freight land transport by rail is high (at 40 %, against the EU average of 16 %), but only 19 % of the rail network is electrified (EU average is 56 %). In maritime transport, it is important to concentrate action on reducing the environmental impact of ferry traffic, including by deploying low and zero emission vessels and developing necessary port and bunkering infrastructure.

Agriculture accounted for 29 % of effort sharing emissions. The emissions in the sector have decreased significantly since 2005 (32 % reduction from 2005 to 2022), but they have increased in the recent years (10 % increase from 2015 to 2022). Emissions from the

([125]) Directive (EU) 2023/959 (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2023.130.01.0134.01.ENG).

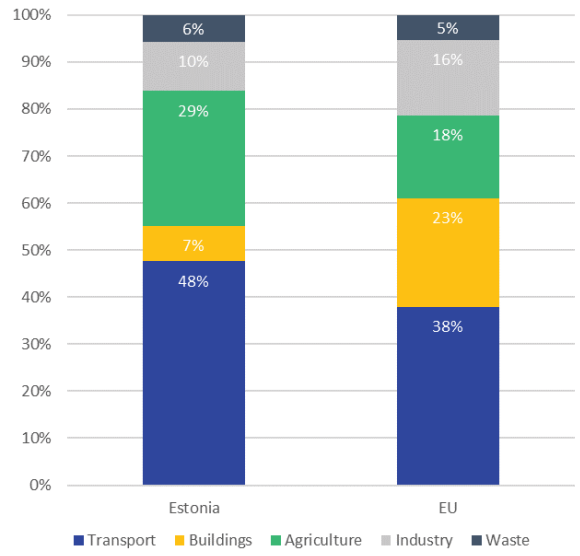
([126]) Directive - 2023/959 - EN - EUR-Lex and Directive - 2023/958 - EN - EUR-Lex.

([127]) Regulation (EU) 2018/842 (https://eur-lex.europa.eu/eli/reg/2018/842).

sector are expected to increase by 4.5 % in 2050 compared to 2020 due to livestock and the use of fertilisers.

Buildings accounted for 7 % of effort sharing emissions. Estonia has a substantial difference between energy performance of residential and commercial buildings. While final energy consumption of commercial and public buildings is the lowest in the EU, consumption of residential buildings is the second highest. Estonia's efforts to reduce energy consumption in the residential sector have not made a meaningful contribution to its 2030 reduction target for energy consumption by buildings. The residential final energy consumption was lower in 2022 than 2020 but has increased by 3.6 % since 2015. Total emissions of buildings have decreased by 42 % since 2005, which is above EU average decrease of 29 %.

Figure 34: Effort sharing emissions by sector, 2022



Land use, land-use change and forestry

The LULUCF sector plays a significant role in achieving the EU's climate neutrality goal. In the EU, this sector absorbs more GHGs than it emits, removing significant volumes of carbon from the atmosphere. Thus, it is the only sector with negative emissions.

That is not the case in Estonia. In 2014 net carbon removals turned into net emissions and have remained above zero since then. Since 2020 there has been a reduction in LULUCF emissions. As recommended in the context of the European Semester, continued improvements in forest management and action to restore wetlands could help Estonia continue the reverse in the decline in net carbon removals from the atmosphere.

Estonia's target in 2030 is to enhance land removals by an additional –0.4 Mt of CO_2 equivalent compared to the yearly average of the period 2016–2018. The latest projections show a surplus to target of −0.4 Mt of CO_2 equivalent in 2030. Therefore, Estonia is on track to meet the 2030 target.

Adaptation to climate change

Halting all GHG emissions would still not prevent climate impacts that are already occurring. Therefore, adaptation to climate change is also a key component of climate policy.

Estonia has one out of three regions identified as a hotspots of climate risks most affected by climate change – low-lying coastal regions ([128]).

Estonia is vulnerable to the impacts of climate change such as rises in temperature, rainfall and sea level, and extreme weather phenomena accompanied by coastal and inland floods, wildfires and new pathogens. Estonia's overall insurance coverage is low with only 5–20 % of the economic losses from 1980–2020 being insured.

Estonia's adaptation framework has weaknesses. Estonia adopted its national adaptation strategy in 2017 and has not yet been updated such that it integrates climate adaptation into key vulnerable sectors and tackles the barriers to adaptation. Likewise, measures to protect densely populated areas and areas around inland waterbodies and forests – issues of key importance – have not yet been taken.

2025 priority actions

European Commission identified five priority actions in the 2022 edition ([129]) of the review.

There is still little progress in reducing energy consumption of buildings, especially in the residential sector.

Estonian emissions primarily come from the energy sector. Estonia is making progress in transitioning on climate-neutral energy systems as it committed to cease electricity production from oil shale by 2035 and to phase out oil shale in energy production by 2040 in their Just Transition territorial Plan.

Estonia made significant steps in implementing reforms to accelerate the deployment of renewables.

([128]) European Climate Risk Assessment (EUCRA). 2024. Available at European Climate Risk Assessment (europa.eu).

([129]) 2022 edition.

Overall share of renewables is way above the EU average.

There is no direct mention of ensuring the sustainability criteria or GHG saving criteria in any of the reported measures.

As Estonia had not submitted its final national energy and climate plan (NECP) plan by the end of March 2025, the European Commission encourages Estonia to submit it. The plan will be assessed and the assessment will be available on the Commission website: National energy and climate plans.

2025 priority actions

- Implement all polices and measures that are needed to achieve targets laid down in the Effort Sharing Regulation (ESR) and the Land Use and Land-Use Change and Forestry (LULUCF) Regulation. More detailed priority actions will be set out after the submission and assessment of the final National Energy and Climate Plan (NECP).

Part II: Enabling framework – implementation tools

5. Financing

The EU budget supports climate investment in Estonia with significant amounts in 2021–2027, with revenues from the ETS also feeding into the national budget. During 2020–2022, Estonia's revenues from auctioning reached EUR 725 million in total, with 53 % of it spent on climate and energy, corresponding to EUR 381 million.

In addition, the annual investment needed to meet its environmental objectives in the areas of pollution prevention and control, the circular economy and waste, water protection and management, and biodiversity and ecosystems is estimated to be EUR 1.4 billion per year in Estonia.

These four environmental areas currently receive total funding of around EUR 0.6 billion per year; thus, there is a gap of EUR 0.8 billion per year.

Of the environmental investment gap, EUR 591 million concerns biodiversity and ecosystems, with a further EUR 60–70 million needed for each of pollution prevention and control, circular economy and water.

Climate finance landmarks

EU funding for climate action

The EU budget supports climate action in the EU-27 with EUR 657.8 billion in the 2021–2027 budgetary period across the various programmes and funds, representing an overall 34.3 % contribution level. Of this, cohesion policy provides EUR 120 billion (over half of it through the European Regional Development Fund (ERDF)), the recovery and resilience facility (RRF) EUR 275.7 billion and CAP EUR 145.9 billion ([130]).

In Estonia, the EU cohesion policy (considering EU contribution amounts) provides EUR 1.4 billion for climate action in 2021–2027 (with around 40 % of this via the ERDF), with a further EUR 43 million from European Maritime, Fisheries and Aquaculture Fund ([131]).

The RRF contributes to climate finance in Estonia with EUR 0.57 billion up to 2026, representing 59.4 % of the RRP ([132]).

The European Investment Bank (EIB) provided EUR 109.9 billion financing across the EU-27 between 2021 and mid 2024 to support energy, transport and industry projects that are aligned with the EU's climate objectives. Of this amount, EUR 391 million was assigned to Estonia in the reference period ([133]).

National financing, including EU emissions trading system revenues

Revenues from the auctioning of emission allowances under the EU ETS, which feed directly into national budgets, amounted to EUR 142 million in 2020, EUR 249 million in 2021 and EUR 334 million in 2022 in Estonia, totalling EUR 725 million in the three-year period. In Estonia, 50 % of the auctioning revenues are earmarked and directed through the four-year state budget strategy and used for climate and energy purposes, which may take multiple years. Unspent revenues are carried over to later years and always used for climate and energy projects. The remaining 50 % goes to the general budget, which covers, among other things, climate and energy investment (not included here) ([134]).

From the remaining part of the EU ETS revenues that feed into the Innovation Fund and the Modernisation Fund, further support is available to climate action at the EU level.

It should be noted that investment in climate action also supports the environment and, therefore, the environmental investments described in the following sections cannot be regarded as entirely additional to climate investment ([135]).

([130]) European Commission, *Statement of Estimates of the European Commission – For the financial year 2025*, Publications Office of the European Union, Luxembourg, 2024, pp. 94–96, https://commission.europa.eu/document/download/7a0420e1-599e-4246-9131-ccb7d505d6d9_en?filename=DB2025-Statement-of-Estimates_1.pdf.

([131]) See the Cohesion Open Data Platform (https://cohesiondata.ec.europa.eu/).

([132]) EU Commission datasets and the Recovery and Resilience Scoreboard (https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html).

([133]) A list of financed projects is provided by the EIB (https://www.eib.org/en/projects/loans/index.htm).

([134]) European Commission: Directorate-General for Climate Action, *Progress Report 2023 – Climate action*, Publications Office of the European Union, Luxembourg, 2023, https://climate.ec.europa.eu/news-your-voice/news/climate-action-progress-report-2023-2023-10-24_en.

([135]) NB: Indirect investments (from climate and other policies) in support of the environment are accounted for via the tracking.

Environmental financing and investments

This section describes Estonia's investment needs, current financing and gaps as they relate to the four environmental objectives beyond climate objectives, namely tackling pollution, the circular economy and waste, water protection and management, and biodiversity and ecosystems ([136]).

The environment overall

Investment needs

The overall environmental investment needs to be sufficient to enable Estonia to meet its objectives in the areas of pollution prevention and control, the circular economy and waste, water protection and management, and biodiversity and ecosystems. The required investment is estimated to be EUR 1.4 billion per year (in 2022 prices).

A significant part of the estimated requirement, around EUR 0.7 billion per year, can be attributed to the need to support biodiversity and ecosystems. For pollution prevention and control, the annual investment needs are estimated to be EUR 204 million; for water they are EUR 138 million and for circular economy EUR 348 million (in 2022 prices).

Current investments

To implement the environmental investments needed, the available financing is estimated to currently reach EUR 0.6 billion per year in Estonia from EU and national sources combined (in 2022 prices).

Total environmental funding from the multiannual financial framework (MFF) is estimated to reach around EUR 1.2 billion for Estonia in total, during 2021–2027 (or EUR 178 million per year).

Table 1: Key environmental allocations from EU funds to Estonia (million EUR), 2021–2027

Instrument	Allocations
Cohesion policy	**632.7** ([a])
ERDF	273.8
Cohesion Fund	330.5
Just Transition Fund	28.4
CAP	**431.5** ([b])
European Agricultural Guarantee Fund	246.4
European Agricultural Fund for Rural Development	185.1
European Maritime, Fisheries and Aquaculture Fund	**24.4**
Other MFF sources	157.6 ([c])
RRF ([d]) (2021–2026)	**224.7**

([a]) European Commission, 2021-2027 cohesion policy (planned) allocations in *EU amount* excluding national co-financing, based on the tracking in the Common Provisions Regulation (CPR, 2021) Annex I. Please note potential data changes that may have arisen between the EIR preparation cut-off date (31 October 2024) and its publication date. Source and further information: https://cohesiondata.ec.europa.eu/2021-2027-Categorisation/2021-2027-Planned-finances-detailed-categorisation/hgvj-gyin/about_data.

([b]) Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP strategic plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013 (OJ L 435 6.12.2021, p. 1), Annex XI, https://eur-lex.europa.eu/eli/reg/2021/2115.

Note that 2021-2027 combines factual data for 2021 and 2022 and expenditure under the relevant specific objectives (SOs) of the CAP strategic plans from 2023, using the EU biodiversity tracking methodology (https://commission.europa.eu/system/files/2023-06/Biodiversity%20tracking%20methodology%20for%20each%20programme%202023.pdf). Source: European Commission.

([c]) Space Fund, Horizon Europe, LIFE and the Connecting Europe Facility.

([d]) Outside the MFF. Note that the RRF applies a similar environmental tracking scheme (set in the RRF Regulation, Annex VI) as the EU's cohesion policy. RRF dataset version used: July 2024, prior to 2025 revisions. Data source: European Commission.

Estonia, in addition to receiving EU funds earmarked specifically for it in 2021–2027, can also benefit from funding programmes that can be accessed at the EU level and which are open to all Member States. These include the LIFE programme (EUR 5.4 billion) ([137]), Horizon Europe (EUR 95.5 billion) ([138]), the Connecting Europe Facility

([136]) Research, development and innovation is accounted for under each environmental objective. The financing needs, baselines and gaps estimates are based on the Directorate-General for Environment's internal analysis (of 2024). Throughout this chapter, specific references are provided to the most important data sources used.

([137]) https://cinea.ec.europa.eu/programmes/life_en.

([138]) European Commission, Horizon Europe, https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en.

(EUR 33.7 billion) ([139]) and funds that can be mobilised through the InvestEU programme ([140]).

Estonia's RRP supports climate objectives through funding of EUR 0.57 billion (59.4 % of total), with no additional amounts for the environment.

The EIB provided around EUR 158.1 million in environment-related financial contributions to Estonia from 2021 to mid 2024, most of which, EUR 134.6 million (85 %), was in the area of sustainable energy, transport and industrial projects, which provides significant co-benefits to reducing air pollution, environmental noise and other pollution.

The EU's total national expenditure on environmental protection (operating plus capital expenditure) was EUR 298 billion in 2020 and EUR 321 billion in 2021, representing around 2.2 % of EU-27 GDP. In Estonia, the total national environmental protection expenditure was EUR 636 million in 2020 and EUR 615 million in 2021, representing 2.3 % and 2 % of GDP, respectively.

Of the total environmental expenditure, the national capital expenditure (investment) on environmental protection amounted to EUR 54.5 billion in 2020 and EUR 59.9 billion in 2021 in the EU-27, representing around 0.4 % of the EU's GDP. In Estonia, the national environmental protection investment reached EUR 140 million in 2020, before falling to EUR 129 million in 2021, representing around 0.4–0.5 % of GDP.

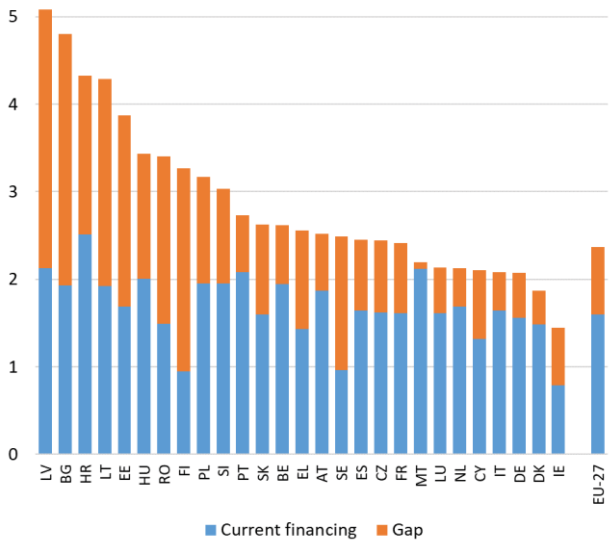
Splitting by institutional sector, 12 % of Estonia's national environmental protection investment (capital expenditure) comes from the general government budget, with 64 % coming from specialist private-sector producers (of environmental protection services, such as waste and water companies) and 28 % from the general business sector, whose environmental activities are usually ancillary to its main activities. At the EU level, 38 % of environmental protection investment comes from governments, 40 % from specialist private-sector producers and 22 % from the general business sector ([141]).

Estonia's total financing for environmental investment reaches an estimated EUR 612 million per year (in 2022 prices), including EU funding and national public and national private expenditure. Of the total, the share of EU funds (including EIB funds) reaches 35.6 %, with around 64 % national financing. The total public financing (EU plus national public) represents 43 % of the total.

The gap

To meet its four environmental objectives beyond climate change, the additional investment need over the current levels (i.e. the gap) reaches an estimated EUR 0.8 billion per year in Estonia, representing around 2.18 % of the national GDP, higher than the EU average (0.77 %).

Figure 16: Environmental financing, needs and gaps per Member State (% of GDP)



Source: Analysis of Directorate-General for Environment.

The following table provides the distributions of Estonia's environmental investment gap (expressed in various forms) by environmental objective.

([139]) The Connecting Europe Facility Transport part also includes EUR 11.3 billion transferred from the Cohesion Fund, of which 30 % will be made available, on a competitive basis, to all Member States eligible for the Cohesion Fund. The remaining 70 % will respect the national envelopes until 31 December 2023.

([140]) The InvestEU Fund is set to mobilise over EUR 372 billion of investment through an EU budget guarantee of EUR 26.2 billion to back the investment of financial partners such as the EIB group and others.

([141]) Eurostat, 'Environmental protection expenditure accounts', env_ac_epea.

Table 2: Summary of environmental investment gaps in Estonia per year, 2021–2027

Environmental objective	Investment gap per year		
	Million EUR (2022 prices)	% of total	% of GDP
Pollution prevention and control	66	8.4	0.18
Circular economy and waste	66	8.3	0.18
Water management and water industries	65	8.3	0.18
Biodiversity and ecosystems	591	75.0	1.63
Total	**788**	**100.0**	**2.18**

Source: Directorate-General for Environment analysis.

Pollution prevention and control

Investment needs

In pollution prevention and control, Estonia's investment needs are estimated to reach EUR 0.2 billion per year (including baseline investments) in 2021–2027. Most of this, EUR 188 million, relates to air pollution control, to comply with the clean air requirements for the five main air pollutants under the NECD by 2030. The estimated needs to reduce environmental noise reach EUR 55 million per year, most of which is delivered by the (same) sustainable energy and transport investments that also benefit clean air ([142]). Industrial site remediation requires an estimated EUR 7 million per year. Microplastics pollution and the chemicals strategy require around EUR 4–5 million per year (each) ([143]).

Current investments

The current investment levels supporting pollution prevention and control reach an estimated EUR 138 million per year in Estonia in 2021–2027. Most of the financing concerns clean air (EUR 130 million per year). Protection from environmental noise receives around EUR 55 million per year, with a further EUR 10 million for site remediation.

In Estonia, the EU MFF provides an estimated 44 % of the clean air financing (mostly via cohesion policy), with a further 20 % from the RRF, adding up to 64 % of the total. EIB financing contributes 13 % and national sources reach 23 % ([144]).

The gap

To meet its environmental objectives concerning pollution prevention and control (towards zero pollution), Estonia needs to provide an additional EUR 66 million per year (0.18 % of GDP), mostly related to clean air and noise. The adequate implementation of the NECP with the investments included for sustainable energy and transport would largely deliver this, while in many Member States additional measures and investments may be required to comply with the ammonia reduction requirements.

According to the latest (2023) NAPCP review report ([145]), Estonia complied with ammonia reduction requirements in 2020 and 2021, while it is at high risk of non-compliance with ammonia concerning the NECD's 2030 emission reduction commitments (and at low risk for the other four pollutants), based on the policies and measures in its NAPCP that take into account climate, energy and CAP plans and financing baselines.

Circular economy and waste

Investment needs

Estonia's investment needs in circular economy and waste reach EUR 348 million per year (including baseline investments). Most of this, around EUR 294 million per year, relates to circular economy measures in the mobility, food and built environment systems, with a further EUR 54 million necessary for waste management (municipal and packaging waste), covering waste collection, biowaste treatment, recycling reprocessors, waste-sorting facilities, and digitalisation of the waste registry. The amount for waste excludes the investments

([142]) 2021 Phenomena project assessment (https://op.europa.eu/en/publication-detail/-/publication/f4cd7465-a95d-11eb-9585-01aa75ed71a1) and the Commission's 2023 Environmental Noise Directive implementation report (https://environment.ec.europa.eu/system/files/2023-03/COM_2023_139_1_EN_ACT_part1_v3.pdf).

([143]) European Commission, *Third Clean Air Outlook*, Brussels, 2022, https://environment.ec.europa.eu/topics/air/clean-air-outlook_en. See also the impact assessment for the revision of the AAQD, available from the Commission web page on the proposed revision (https://environment.ec.europa.eu/publications/revision-eu-ambient-air-quality-legislation_en).

([144]) Through the tracking of EU funds, EIB projects and national expenditure (EPEA accounts, Eurostat). Note that the bulk of clean air financing is provided as a contribution from climate (energy and transport) measures, as per the tracking schemes in the Common Provisions Regulation Annex I and the RRF Regulation Annex VI. Further information on clean air tracking: https://commission.europa.eu/document/download/0a80484e-2409-4749-94c6-3b23bc6bae8f_en?filename=Clean%20air%20methodology_0.pdf

([145]) European Commission, 'National air pollution control programmes and projections', European Commission website, https://environment.ec.europa.eu/topics/air/reducing-emissions-air-pollutants/national-air-pollution-control-programmes-and-projections_en.

needed for the uptake of circularity and waste prevention across the economy ([146]).

Current investments

Circular economy investments across the economy reach around EUR 240 million per year in Estonia in 2021-2027, with a further EUR 42 million provided for waste management that does not constitute circular economy.

Around 4.7 % of this combined financing for circularity and waste comes from the EU MFF, with a further 0.2 % from the RRF, adding up to 4.9 % of the total. EIB loans identified in support of circularity and waste represent 1.1 % of the total. The share of national sources is absolutely overwhelming, reaching 94 % of the total financing ([147]).

The gap

To meet its environmental objectives concerning the circular economy and waste, Estonia needs to increase circular economy investments by an estimated EUR 54 million per year, with an additional EUR 12 million concerning waste management action, not belonging to circular economy. Combined, this amounts to EUR 66 million per year, representing 0.18 % of Estonia's GDP.

Of the circular economy gap, EUR 14 million relates to recent initiatives, such as the eco-design for sustainable products, packaging and packaging waste, labelling and digital tools, critical raw material recycling, and measures proposed under the amendment of the Waste Framework Directive, and EUR 40 million constitutes further investment need to unlock Estonia's circular economy potential.

Water protection and management

Investment needs

The annual water investment needs reach an estimated EUR 138 million (in 2022 prices) in Estonia. This comprises investment needs both for the water industry and for the protection and the management of water. The largest part of the total annual need, EUR 80 million, relates to the management of waste water (also including additional costs associated with the revised UWWTD). A further EUR 23 million is necessary for drinking-water-related investments and around EUR 32 million for the protection and management of water ([148]).

Current investments

Water investments in Estonia are estimated to be around EUR 73 million per year (in 2022 prices) in 2021–2027. Of this, EUR 21 million supports wastewater management, EUR 17 million drinking water and around EUR 34 million the other aspects of the Water Framework Directive (water management and protection).

Of the total financing, 10.1 % is provided by the EU MFF (mostly through cohesion policy), with no further contribution from the RRF or from the EIB. The bulk of financing comes from national sources (89.9 %) ([149]).

The gap

To meet the various environmental targets under the WFD and the Floods Directive, Estonia's water investment gap reaches EUR 65 million per year (0.18 % of GDP), with most of it related to waste water (EUR 59 million per year). Drinking water measures require an additional EUR 7 million per year.

Biodiversity and ecosystems

Investment needs

The investment needs for biodiversity and ecosystems are estimated to be EUR 710 million per year (in 2022 prices) in Estonia in 2021–2027. This includes the following financing needs:

- Estonia's prioritised action framework ([150]), concerning the Natura 2000 areas: EUR 43.5 million per year, mostly running costs;
- additional BDS costs ([151]): EUR 480 million per year on top of the framework;

([146]) See Systemiq and Ellen MacArthur Foundation, *Achieving 'Growth Within'*, 2017; and European Commission: Directorate-General for Environment, *Study on investment needs in the waste sector and on the financing of municipal waste management in Member States*, Publications Office of the European Union, Luxembourg, 2019, https://op.europa.eu/en/publication-detail/-/publication/4d5f8355-bcad-11e9-9d01-01aa75ed71a1.

([147]) Waste management and circular economy expenditure tracking in the EU funds, EIB projects and in the national expenditure (Eurostat). Datasets: EPEA accounts (env_epi) and circular economy private investments (cei_cie012).

([148]) See European Commission, 'Estimating investment needs and financing capacities for water-related investment in EU Member States', 28 May 2020, https://commission.europa.eu/news/estimating-investment-needs-and-financing-capacities-water-related-investment-eu-member-states-2020-05-28_en; and OECD, *Financing Water Supply, Sanitation and flood Protection: Challenges in EU Member States and policy options*, OECD Publishing, Paris, 2020, https://www.oecd-ilibrary.org/environment/financing-water-supply-sanitation-and-flood-protection_6893cdac-en.

([149]) Water investment levels are estimated through tracking EU funds, EIB projects and national expenditure (EPEA accounts, Eurostat).

([150]) European Commission, 'Financing Natura 2000 – Prioritised action frameworks', European Commission website, https://environment.ec.europa.eu/topics/nature-and-biodiversity/natura-2000/financing-natura-2000_en.

([151]) See European Commission: Directorate-General for Environment, *Biodiversity Financing and Tracking – Final report*, Publications Office of the European Union, Luxembourg, 2022, https://op.europa.eu/en/publication-detail/-/publication/793eb6ec-dbd6-11ec-a534-01aa75ed71a1/language-en.

- sustainable soil management costs ([152]): EUR 187 million per year.

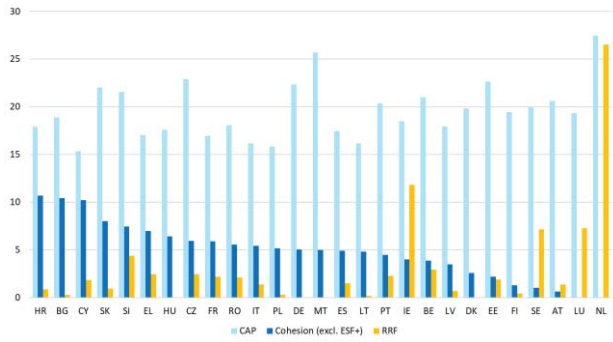
Current investments

The current level of biodiversity financing is estimated to be EUR 119 million per year (in 2022 prices) in 2021–2027. 78.9 % of this is considered direct financing to biodiversity and ecosystems, with a 100 % coefficient in the tracking schemes.

6.7 % of the total financing is estimated to come from EU cohesion policy, 48 % from CAP, 9.5 % may come from Horizon Europe and around 3.7 % from LIFE. The EU MFF altogether accounts for 72 % of the financing and the RRF for 2 %, adding up to a total of 74 % from the EU budget. The rest, 26 %, comes from national sources ([153]).

At 1.9 %, Estonia's share of RRF funding dedicated to supporting measures for biodiversity is above the average. Estonia has also programmed 22.6 % of its CAP budget for 2021–2027 in measures dedicated to support biodiversity, which is above the EU average. Lastly, 2.2 % of Estonia's cohesion policy EU contribution amount is estimated to contribute to biodiversity (disregarding ESF+), corresponding to less than half of the EU average.

Figure 36: 2021–2027 contributions to biodiversity from the main EU instruments per Member State (% of policy total)



NB: ESF+, European Social Fund Plus.

The gap

To meet the environmental objectives concerning the protection and restoration of biodiversity and ecosystems and other relevant cross-cutting measures, Estonia's investment gap is estimated to be around EUR 0.6 billion per year, corresponding to 1.63 % of its GDP.

Public financial management

Green budgeting practices

Green budgeting refers to the use of budgetary tools to achieve climate and environmental goals. Some Member States already use green budgeting tools for identifying and tracking green expenditures and/or revenues ([154]). Green budgeting practices provide increased transparency on the environmental implications of budgetary policies.

The Commission has developed a non-mandatory green budgeting reference framework that brings together methodologies for assessing the impacts of budgets on climate and environmental goals ([155]).

To help Member States develop national green budgeting and thereby improve policy coherence and support the green transition, the Commission facilitated a technical support instrument (TSI) project on green budgeting from 2021 to 2204 ([156]). Estonia participated.

Beyond green budgeting, to improve policy outcomes, the Commission has also drawn up climate-proofing and sustainability-proofing guidance ([157]), as tools to assess project eligibility and compliance with environmental legislation and criteria.

Green taxation and tax reform

Total environmental taxes amounted to EUR 830 million in Estonia in 2022, representing 2.3 % of its GDP (EU average: 2.0 %). Energy taxes formed the largest component of environmental taxes, accounting for 2.1 % of GDP, which is higher than the EU average of 1.6 %. Transport taxes, at 0.04 % of GDP, were under the EU average (0.4 %), while taxes on pollution and resources, at 0.16 %, were above

([152]) See Proposal for a directive of the European Parliament and of the Council on soil monitoring and resilience (Soil Monitoring Law) COM(2023) 416 final of 5 July 2023, https://environment.ec.europa.eu/publications/proposal-directive-soil-monitoring-and-resilience_en.

([153]) Based on biodiversity tracking in the EU budget (https://circabc.europa.eu/ui/group/3f466d71-92a7-49eb-9c63-6cb0fadf29dc/library/8e44293a-d97f-496d-8769-50365780acde), and national expenditure into biodiversity from the Classification of the Functions of Government accounts.

([154]) European Commission, *Green Budgeting in the EU. Key Insights from the 2023 European Commission Survey of Green Budgeting Practices*, 2023, https://economy-finance.ec.europa.eu/economic-and-fiscal-governance/national-fiscal-frameworks-eu-member-states/green-budgeting-eu_en#:~:text=European%20Commission%20Green%20Budgeting%20Survey%C2%A0.

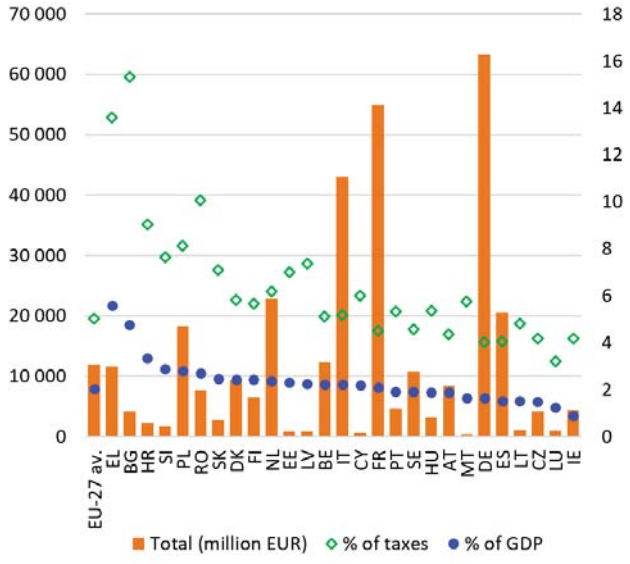
([155]) European Commission, 'European Union green budgeting reference framework', 2022, https://economy-finance.ec.europa.eu/economic-and-fiscal-governance/green-budgeting-eu_en.

([156]) https://reform-support.ec.europa.eu/what-we-do/revenue-administration-and-public-financial-management/supporting-implementation-green-budgeting-practices-eu_en.

([157]) Commission notice – Technical guidance on the climate proofing of infrastructure in the period 2021–2027 (OJ C 373, 16.09.2021, p. 1), https://op.europa.eu/en/publication-detail/-/publication/23a24b21-16d0-11ec-b4fe-01aa75ed71a1/language-en.

the EU average (0.08 %). In 2022, environmental taxes in Estonia accounted for 7 % of total revenues from taxes and social security contributions (above the EU average of 5.0 %) ([158]).

Figure 37: Environmental taxes per Member State, 2022



The EU Green Deal emphasises the role of well-designed tax reforms (e.g. shifts from taxing labour to taxing pollution) to boost economic growth and resilience, and to foster a fairer society and a just transition through the right price signals. The Green Deal promotes the 'polluter-pays principle', which makes polluters bear the costs to prevent, control and remedy pollution.

According to a 2024 study ([159]), Estonia applies environmental taxes used to discourage environmentally harmful activities and behaviours in the fields of water, air, soil and waste management (levies on plastics).

Green bonds and sustainable bonds

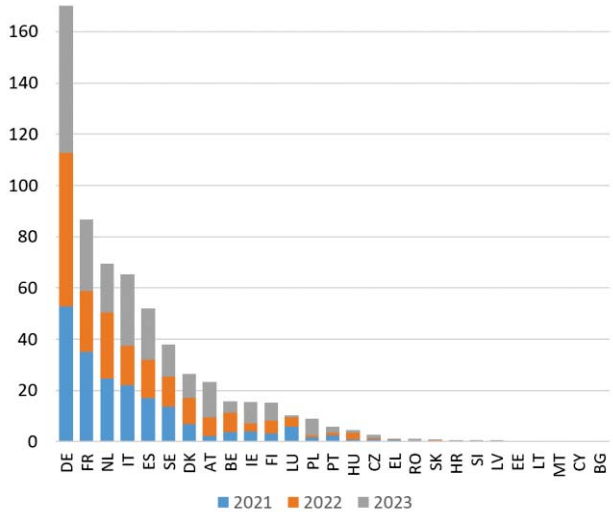
In 2023, the total value of green bonds issued by Member States was USD 245 billion (EUR 227 billion), up from USD 234 billion (EUR 198 billion) in 2021.

During 2021–2023 combined, Estonia issued green bonds worth USD 97.6 million (EUR 82.5 million), with all of it issued in 2023 ([160]).

During 2014–2023, 83 % of the green bonds issued by European countries (excluding supranational entities) served objectives in energy, buildings or transport, while 5 % supported objectives in water, 5.1 % related to land use (with links to nature and ecosystems) and 3.8 % applied to waste management. By 2023, the combined share of energy, buildings and transport had decreased to 73 %, the shares of waste management and land use had increased (to 5.9 % and 8.4 %, respectively) and the share of water had remained around 5 %.

In 2021–2023, 31.7 % of the European green bonds (excluding supranational issuances) was issued by financial corporates, 29.1 % by sovereign governments and 23.1 % by non-financial corporates. 8.3 % of the issuances was linked to government-backed entities, 6.4 % to developments banks and 1.4 % to local governments.

Figure 38: Value of green bonds issued per Member State (billion EUR), 2021, 2022 and 2023



Data source: Climatebonds.net, with some additional data from national sources (e.g. Croatia, Slovenia).

Environmentally harmful subsidies

Addressing and phasing out environmentally harmful subsidies, in particular fossil fuel subsidies (FFS), is a further step towards achieving the eighth environment action programme objectives and the enabling conditions ([161]). FFS are costly for public budgets and make it difficult to achieve European Green Deal objectives.

The overall downward trend of FFS mentioned in past EIRs was disrupted from 2022 due to the European response to

([158]) Eurostat, 'Environmental taxes accounts', env_eta.

([159]) European Commission: Directorate-General for Environment, *Candidates for Taxing Environmental Bads at National Level*, Publications Office of the European Union, Luxembourg, 2024, Annex 2, https://op.europa.eu/en/publication-detail/-/publication/35c1bbdf-2931-11ef-9290-01aa75ed71a1/language-en.

([160]) Climate bonds initiative (https://www.climatebonds.net/). NB. Additionally (and not included in this), national sources indicated EUR 544.8 million issuance for Croatia, in 2022-2023, and a slightly higher amount for Slovenia (+0.27 billion) during 2021-2023 in total.

([161]) Article 3(h) and 3(v) of the eighth environment action programme.

the 2021 energy crisis and subsequent increase in energy prices.

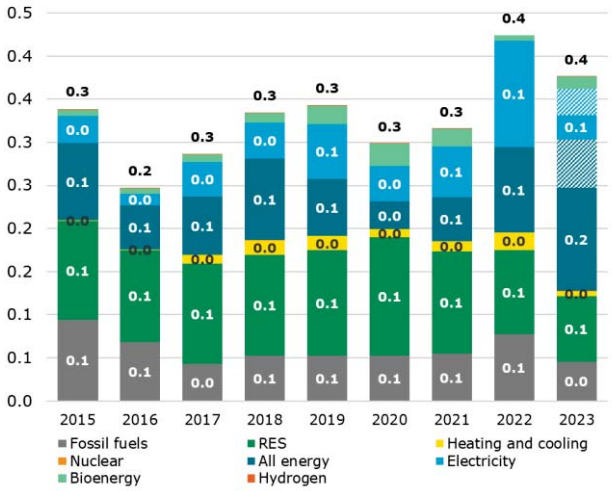
As a direct consequence, annual FFS in the EU have increased to EUR 109 billion in 2023 from EUR 57 billion in 2020. From 2021 to 2023, there was a marked increase in annual FFS of 72 % in the EU ([162]).

For the majority of the Member States (16), the year 2022 saw a peak in the amount of overall FFS. A decline was then observed in 2023 ([163]). In particular, FFS for coal and lignite, natural gas and oil increased in 2022 and a strong increase was observed for natural gas subsidies.

In Estonia, the energy subsidies showed some volatility between 2015 and 2021, with FFS totalling around EUR 0.1 billion per year. In 2022, the overall energy subsidies increased to above EUR 0.4 billion per year, and then decreased in 2023, with similar levels of FFS as before.

As a share of GDP, FFS in 2022 ranged from 1.8 % in Croatia to less than 0.1 % in Denmark and Sweden. Estonia's value reached 0.3 %, under the EU average (0.8 %) ([164]).

Figure 39: Energy subsidies by energy carrier (billion EUR), 2015–2023



NB: RES, renewable energy source.

Source : analysis of Directorate-General Energy

Estonia did not receive a specific priority action in 2022. It was, however, noted that certain additional investment needs may require adequate financing.

There is an overall environmental investment gap of around 2 % of GDP in Estonia, with a significant part of it related to the needs arising from the BDS and sustainable soil management.

2025 priority action

With regard to existing investment gaps, the following general priority action is specified.

- Use more national funding (for instance by increasing taxes in favour of the environment and reducing environmentally harmful subsidies), EU funding and private funding to help close the investment gap.

([162]) European Commission, 2024 Report on Energy Subsidies in the European Union, COM(2025), https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2025)17&lang=en

([163]) 16 Member States: BE, EE, IE, EL, ES, FR, HR, IT, CY, LT, HU, NL, AT, PT, RO and SE.

([164]) European Commission, 2024 Report on Energy Subsidies in the European Union, COM(2025), https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2025)17&lang=en

6. Environmental governance

Information, public participation and access to justice

Citizens can more effectively protect the environment if they rely on the three 'pillars' of the Aarhus Convention: (i) access to information, (ii) public participation in decision-making and (iii) access to justice in environmental matters. It is of crucial importance to public authorities, the public and businesses that environmental information is shared efficiently and effectively ([165]). Public participation allows authorities to make decisions that take public concerns into account. Access to justice is a set of guarantees that allows citizens and NGOs to use national courts to protect the environment, safeguard the rights of citizens and ensure accountability of authorities ([166]). It includes the right to bring legal challenges ('legal standing') ([167]).

Environmental information

This section focuses on the implementation of the Infrastructure for Spatial Information in the European Community (Inspire) Directive. The Inspire Directive aims to set up a European spatial-data infrastructure for sharing environmental spatial information between public authorities across Europe. It is expected that this will help policymaking across boundaries and facilitate public access to this information. Geographic information is needed for good governance at all levels and should be readily and transparently available.

Estonia's performance in implementing the Inspire Directive is substantial and has been reviewed based on its 2023 country fiche ([168]) (see Table 3).

Table 3: Estonia dashboard on implementation of the Inspire Directive, 2016–2023[169]

	2016	2023	Legend
Effective coordination and data sharing			Implementation of this provision is well advanced or (nearly) completed. Outstanding issues are minor and can be addressed easily. Percentage > 89 %
Ensure effective coordination	🟨	🟩	
Data sharing without obstacle	🟨	🟩	
Inspire performance indicators			Implementation of this provision has started and made some or substantial progress but is still not close to being completed. Percentage = 31–89 %
(i) Conformity of metadata	🟩	🟩	
(ii) Conformity of spatial datasets	🟨	🟩	
(iii) Accessibility of spatial datasets through view and download services	🟨	🟨	
(iv) Conformity of network services	🟨	🟩	Implementation of this provision is falling significantly behind. Serious efforts are necessary to close the implementation gap. Percentage < 31 %

Source: European Commission, 'Estonia', Inspire Knowledge Base, https://knowledge-base.inspire.ec.europa.eu/estonia_en.

In 2022, Estonia received a priority action on the need to make spatial data more widely accessible and prioritise the environmental datasets. Estonia has made progress on the accessibility of spatial data. However, the accessibility of high-value spatial datasets for implementing environmental legislation ([170]) still needs improvement, and a priority action is proposed in 2025.

([165]) The Aarhus Convention (https://unece.org/environment-policy/public-participation/aarhus-convention/text), the Access to Environmental Information Directive (Directive 2003/4/EC) (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003L0004) and the Inspire Directive (Directive 2007/2/EC) (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32007L0002) together create a legal foundation for the sharing of environmental information between public authorities and with the public.

([166]) These guarantees are explained in the European Commission's 2017 notice on access to justice in environmental matters (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52017XC0818(02)) and a related 2018 citizen's guide (https://op.europa.eu/en/publication-detail/-/publication/2b362f0a-bfe4-11e8-99ee-01aa75ed71a1/language-en/format-PDF).

([167]) This EIR focuses on the means used by Member States to guarantee rights of access to justice and legal standing and to overcome other major barriers to bringing cases on environmental protection.

([168]) European Commission, 'Estonia', Inspire Knowledge Base, https://knowledge-base.inspire.ec.europa.eu/estonia_en.

([170]) The European Commission provides a list of high-value spatial datasets (https://github.com/INSPIRE-MIF/need-driven-data-prioritisation/blob/main/documents/eReporting_PriorityDataList_V2.1_final_20201008.xlsx).

Public participation

Public involvement at both the planning and the project phase maximises transparency and social acceptance of programmes and projects. Consultation with the public (including NGOs) and environmental, local and regional authorities is a key feature of an effective impact assessment procedure. Such consultation also provides an opportunity for public authorities and project promoters to engage with the public actively and meaningfully by making information on the likely significant effects widely available. If carried out with due diligence and taking into consideration useful public input, this process leads to better-informed decision-making and can promote public acceptance. Making information available increases stakeholder involvement, thus lessening resistance and preventing (or minimising) litigation. On the other hand, it is paramount that the procedure is effective.

This section examines how public involvement and transparency are ensured under two instruments, namely the EIA Directive ([171]) and the Strategic Environmental Assessment (SEA) Directive ([172]).

EU law provides for a flexible framework concerning EIAs. The aim of this framework is to ensure the application of the necessary environmental safeguards, while enabling speedy approval of projects. The Commission has contributed to simplifying and accelerating permitting for renewable energy projects and continues to support the Member States in this regard ([173]). Estonia has already taken steps aiming to accelerate permit-issuing procedures taking advantage of the broad flexibilities offered by the EU legal framework, such as the establishment of one-stop shops and accelerated short deadlines for issuing permits for renewable energy projects.

The average speed in the EU for issuing permits involving an EIA procedure is 20.6 months, with a minimum duration of 11.4 months and a maximum duration of 75.7 months ([174]). In Estonia, the full EIA process takes 22 months, with a minimum of 10 months and maximum of 42 months which is slightly slower than the EU average.

The duration of each step in an EIA process (screening, scoping, EIA report, public consultation, reasoned conclusion, development consent) varies considerably between Member States and projects. Effective use of EU procedures can positively influence the timely approval of activities underpinning the decarbonisation of the economy on the way to net zero by 2050.

A new report is not yet available on the application and effectiveness of the SEA Directive in the EU. Nevertheless, a support study has been published with information by Member State ([175]).

As mentioned in the 2022 EIR, in Estonia the Environmental Board has a special section on its website explaining opportunities to participate in EIA processes, with links to related databases and sources of information ([176]). Notifications on public participation opportunities are published in the official publication *Ametlikud Teadaanded*, available online ([177]).

EIA and SEA procedures are carried out by many authorities and there are no publicly available data on overall levels of participation and access to information in these procedures.

Access to justice

Access to justice, guaranteed by Article 19(1) of the Treaty on European Union and Article 47 of the EU Charter of Fundamental Rights, is a fundamental right and part of the democratic process. It is vital to ensure the full application of EU law in all Member States and the legal protection of the rights of individuals, including in environmental matters. Access to justice is essential to enable judicial review of the decisions of public authorities and to allow the correction of any wrongdoing committed by these authorities.

This section provides a snapshot of the state of play of access to courts by the public, particularly when it comes to challenging plans, or the non-adoption of plans, under EU law, in the areas of water, waste, air quality and noise,

([171]) Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (OJ L 26, 28.1.2012, p. 1), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011L0092.

([172]) Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (OJ L 197, 21.7.2001, p. 30), https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32001L0042.

([173]) Commission Staff Working Document (SWD/2022/0149 final), 18 May 2022, (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022SC0149&qid=1653034229953).

([174]) European Commission: Directorate-General for Environment, *Collection of information and data on the implementation of the revised Environmental Impact Assessment (EIA) Directive (2011/92/EU) as amended by 2014/52/EU)*, Publications Office of the European Union, Luxembourg, 2024, Tables 5 and 6, https://op.europa.eu/en/publication-detail/-/publication/8349a857-2936-11ef-9290-01aa75ed71a1/.

([175]) European Commission: Directorate-General for Environment, Lundberg, P., McNeill, A., McGuinn, J., Cantarelli, A. et al., *Study supporting the preparation of the report on the application and effectiveness of the SEA Directive (Directive 2001/42/EC) – Final study*, Publications Office of the European Union, 2025, https://data.europa.eu/doi/10.2779/1615072

([176]) https://keskkonnaamet.ee/keskkonnateadlikkus-avalikustamised/raagi-kaasa.

([177]) https://www.ametlikudteadaanded.ee/eng/index.

irrespective of the form of the legal act (i.e. regulatory act or administrative decision).

As mentioned in the 2022 EIR, Estonia provides both individuals and NGOs withstanding in environmental court cases.

For plans and programmes that are considered administrative acts (i.e. those that create, terminate or change the individual rights of any person), standing is awarded to those persons whose individual subjective rights have been breached (breach of rights is presumed for environmental NGOs).

In 2022, a priority action was addressed to Estonia to improve access to courts by the public concerned when it comes to challenging administrative or regulatory decisions, in particular under the areas of planning related to water, nature and air quality. No updated information has been provided to the Commission. The framework is currently under assessment.

2025 priority actions

- Make spatial data more widely accessible and prioritise environmental datasets in implementing the Inspire Directive, especially those identified as high-value spatial datasets for implementing environmental legislation.
- Ensure that relevant information on EIA and SEA procedures (including on public participation opportunities and on publication of final decisions) is electronically accessible, through at least a central portal or easily accessible points of access, at the appropriate administrative level.

Compliance assurance

Environmental compliance assurance covers all work undertaken by public authorities to ensure that industries, farmers and others fulfil their obligations to protect water, air and nature, to manage waste ([178]) and to remedy any environmental damage. It includes measures such as (i) compliance promotion, (ii) compliance monitoring (i.e. inspections and other checks), (iii) enforcement, that is steps taken to stop breaches and impose sanctions, and (iv) ensuring damage prevention and remediation in line with the polluter-pays principle.

Compliance promotion, monitoring and enforcement

Non-compliance with environmental obligations may occur for different reasons, including poor understanding or lack of acceptance of the rules, opportunism or even criminality. Compliance promotion activities help duty-holders to comply by providing information, guidance another support. This is particularly important in areas where new and complex legislation is put in place.

When inspections and other control activities identify problems, a range of responses may be appropriate, including the use of administrative and criminal enforcement tools.

As mentioned in the 2022 EIR, inspection reports, as well as statistics about environmental infringements, are available on the Environmental Board's website ([179]). They include information about detected infringements, cases resolved (number and amounts of fines, etc.) and the environmental damage caused.

From the 2023 Environmental Board annual report ([180]), it emerges that the number of decisions adopted in 2023 was 812, lower than the 887 adopted in 2022. Nonetheless, there was more than a tenfold increase in fines imposed in 2023 (EUR 8 533 863 in 2023 compared with EUR 559 757 in 2022), taking into account both administrative fines and criminal penalties imposed for infringements.

No updated information was found on the 2020 joint ministerial declaration on tackling environmental crime.

The 2022 EIR recommended that Estonia (i) provide regular updates on progress on implementing the 2020 joint ministerial declaration on tackling environmental crime; (ii) actively encourage public reporting of environmental damage and infringements and provide information on how those reports are used to improve compliance; and (iii) improve the information available to farmers and other land managers on compliance with the Nature and Nitrates Directives. Concerning compliance promotion, monitoring, and criminal and administrative enforcement, the 2022 priority actions are not assessed here due to a lack of systematic information. Similarly, the Commission is not aware of whether information is easily available online at the national level for farmers regarding compliance with the Nitrates and Nature Directives, and hence the related 2022 priority action is not assessed.

([178]) The concept is explained in detail in the European Commission's 2018 communication on EU actions to improve environmental compliance and governance (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018DC0010) and the related Commission staff working document (https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018SC0010).

([179]) https://www.just.ee/kuritegevuse-statistika.

([180]) https://keskkonnaamet.ee/sites/default/files/documents/2024-03/Keskkonnaameti%20j%C3%A4relevalve%20valdkonna%20kokkuv%C3%B5te%202023.pdf.

The new EU Environmental Crime Directive

The EU has recently strengthened its legal framework on tackling the most serious breaches of environmental obligations, notably by the adoption of the new Environmental Crime Directive (ECD) (Directive (EU) 2024/1203) ([181]) and new sectoral legislation with stronger provisions on compliance monitoring, enforcement and penalties. Issues important for the transposition and the implementation of the relevant new instruments are highlighted below; a detailed assessment of these topics will be included in the next EIR once more implementation measures are put in place and more systematic information is available.

The new ECD replaced the 2008 ECD and introduced several new offence categories, such as unlawful ship recycling, unlawful water abstraction, and serious breaches of EU legislation on chemicals, mercury, fluorinated GHG and IAS of EU concern. It also covered the establishment of qualified offences, subject to more severe penalties where one of the offences defined in the directive leads to serious widespread and substantial damage or destruction of the environment. Concrete provisions on the types and levels of penalties for natural and legal persons who commit an offence were also introduced. Other provisions will help considerably to improve the effectiveness in combating environmental crime of all actors along the enforcement chain. These include obligations to ensure adequate resources and investigative tools, specialised regular training and the establishment of cooperation mechanisms within and between Member States as well as national strategies on combating environmental crime.

Member States are required to transpose the new ECD into national law by 21 May 2026 and to take additional measures to more effectively combat environmental crime, in particular through training, coordination, cooperation and strategic approaches. The Commission will provide support, including by facilitating the identification and sharing of good practices. Member States are expected to ensure the necessary resources and specialised skills required and they are invited to encourage their authorities to support and cooperate with the recognised EU-level networks of environmental enforcement practitioners, such as the EU Network for the Implementation and Enforcement of Environmental Law ([182]), EnviCrimeNet ([183]), the European Network of Prosecutors for the Environment ([184]) and the EU Forum of Judges for the Environment ([185]). The European Union Agency for Law Enforcement Cooperation and European Union Agency for Criminal Justice Cooperation mechanisms for cooperation on cross-border cases should be used more systematically for environmental offences.

Environmental Liability Directive

The Environmental Liability Directive (ELD) ([186]) aims to ensure that environmental damage is remediated in kind at the expense of those who have caused it, in line with the polluter-pays principle. It helps to halt the net loss in biodiversity, as well as reducing the number of contaminated sites and protecting the environmental quality of groundwater and surface waters. The ELD is a cross-cutting tool and a key enabler for better implementation of EU environmental law.

The ELD addresses cases of significant environmental damage to protected species and natural habitats, and, when caused by operators carrying out certain potentially hazardous activities, also damages to water and to soil. The Commission has the legal obligation to periodically evaluate the ELD. The ELD has undergone the second evaluation ([187]), which will be finalised in 2025, and which was supported by an external study ([188]), containing, among other things, evidence, views, reports and other relevant information gathered from different stakeholder groups, including Member States.

One of the most relevant indicators in assessing implementation and enforcement of the ELD is the number of environmental damage cases handled under the ELD, especially when this number is compared with the previous reporting period. Fewer ELD cases were reported in the second reporting period (2013–2022) than in the first one (2007–2013). However, the downward tendency in the number of ELD occurrences and their overall low number do not necessarily mean that the ELD has achieved its objectives, as it needs to be compared

([181]) Directive 2024/1203/EU on the protection of the environment through criminal law https://eur-lex.europa.eu/eli/dir/2024/1203/oj/eng

([182]) https://www.impel.eu/en.

([183]) LIFE+SATEC project (https://webgate.ec.europa.eu/life/publicWebsite/project/LIFE20-PRE-ES-000001/fight-against-environmental-crime-at-a-strategic-level-through-the-strengthening-of-envicrimenet-network-of-experts-in-environmental-criminal-investigations).

([184]) https://www.environmentalprosecutors.eu.

([185]) https://www.eufje.org/index.php?lang=en.

([186]) Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02004L0035-20190626.

([187]) Commission staff working document - Evaluation of the Environmental Liability Directive, forthcoming 2025.

([188]) European Commission: Directorate-General for Environment and Fogleman, V., *Study in support of the evaluation of the Environmental Liability Directive and its implementation – Final report*, Publications Office of the European Union, Luxembourg, 2024, https://op.europa.eu/en/publication-detail/-/publication/006d90e5-980a-11ef-a130-01aa75ed71a1/language-en.

with the overall number of environmental damage cases, some of which may have been handled under the other liability instruments.

The ELD has not always been effective in ensuring that the polluter pays, because the liable operators often lack financial capacity to carry out remediation measures. While the ELD does not provide for a mandatory financial security system, it explicitly calls for Member States to encourage the development of financial security instruments and markets, with the aim of enabling operators to use financial guarantees to cover their responsibilities under this directive.

From 1 May 2013 to 23 February 2022, Estonia reported 6 occurrences of an imminent threat of environmental damage and 11 occurrences of environmental damage under the ELD. In the previous reporting period, there were two confirmed occurrences of an imminent threat and two occurrences of environmental damage. For comparison, in Estonia, there were 879 occurrences of environmental damage between 2012 and 2017, but only 13 occurrences of an imminent threat of or actual environmental damage under the ELD between 2009 and 2019. In 2020, there were 136 occurrences of environmental damage but only 4 occurrences of environmental damage under the ELD.

Estonia has not introduced mandatory financial security for ELD liabilities. Environmental insurance policies are not generally available. Environmental extensions to general liability policies are widely available but cover tends to be limited to remediating off-site land/soil pollution from a sudden and accidental incident on an insured site. They do not provide cover for other ELD liabilities. Demand for them is also low.

The 2022 EIR, in relation to the ELD, recommended that Estonia provide up-to-date information on incidents of environmental damage, including under the ELD, through the registry or databases that are made accessible to the public. Its second report under the ELD states that Estonia had created a registry of ELD cases that is available online. Reports on ELD cases are published as well. In can be concluded that Estonia has made substantial progress in the implementation of this priority action.

2025 priority action

- Encourage the use of training programmes provided by the Commission (or developed at the national level) covering the ELD and its interactions with the other national liability-related instruments, to ensure more efficient ELD implementation, improve the expertise of the competent authorities and raise awareness among all stakeholder groups.

EU-supported environmental capacity building

The Commission's 2023 Compact ([189]) initiative to enhance the administrative space identifies the capacity to lead the green transition as one of three key pillars, along with the public administration skills agenda and the capacity for Europe's Digital Decade. Compact also recognises the role of the EIR reporting tool in improving environmental governance. The two main capacity-building opportunities for the environment provided by the European Commission are the TSI ([190]) and the TAIEX-EIR PEER 2 PEER tool ([191]). The technical assistance available through the cohesion policy is subject to shared management and is not dealt with in this subsection.

The Commission's technical support instrument

The TSI provides Member States with tailor-made technical expertise on the design and implementation of reforms. The support is demand driven and does not require national co-financing.

The Commission's TSI had annual calls in 2021, 2022, 2023, 2024 and 2025. The following environment-related projects have been selected for Estonia:

- Defining the framework for assessment of effectiveness of biodiversity conservation measures in Estonia (2022);
- Implementation of the action plan towards sustainable water services from the Ministry of the Environment of Estonia (2023);
- Developing technological solutions and production possibilities of sustainable aviation fuel (SAF) production in Baltic states from the Ministry of Climate (2024);
- Improving access to finance for the implementation of railway sector projects in order to facilitate integration of Baltic states in the European rail network from the Ministry of Climate (2024);
- Development of unified cross-border public service obligation (PSO) model for the Rail Baltica railway line from the Ministry of Climate (2024);
- Sustainable and effective Blue Economy public governance system from the Ministry of Climate. (2025).

([189]) See the European Commission web page on Compact (https://reform-support.ec.europa.eu/public-administration-and-governance-coordination/enhancing-european-administrative-space-compact_en).

([190]) See the European Commission web page on the TSI (https://commission.europa.eu/funding-tenders/find-funding/eu-funding-programmes/technical-support-instrument/technical-support-instrument-tsi_en).

([191]) See the European Commission web page on the TAIEX-EIR PEER 2 PEER tool (https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review/peer-2-peer_en). TAIEX: Technical Assistance and Information Exchange.

The Commission's TAIEX-EIR PEER 2 PEER tool

The Commission launched the TAIEX-EIR PEER 2 PEER tool in 2017. It aims to facilitate peer-to-peer learning among Member States' environmental authorities through workshops (single or multi-country), expert missions (where a delegation of experts travels to the requesting institution) and study visits (where a delegation from the requesting institution travels to a host country). Flagship multi-country workshops are those requested by the Commission to present new and upcoming environmental legislation and policy in all Member States ([192]).

Workshops involving Estonia are as follows:

- Future challenges for air protection (24 November 2022) with the Czech EU Presidency;
- Best practices in applying Article 6(3) of Habitats Directive: Practical solutions to carry out Natura impact assessments effectively (25–27 October 2023);
- Reducing air pollution from transport and residential energy (11–13 June 2024);
- Online platforms: EU Batteries, Packaging and Packaging Waste Regulation (28–29 October 2024);
- New aspects in the cross-border cooperation against environmental crime (19–20 November 2024).

Estonia was involved in two expert missions, one on best practice in applying Article 6(3) of the Habitats Directive (26–27 April 2023), where it was the host, and one on the emission inventory and assessment of the impact of policies and measures on emissions in Lithuania (15–17 May 2023). Furthermore, Estonia also benefited from a study visit to Sweden on best practice in applying Article 6(3) of the Habitats Directive (18–21 September 2023).

2025 priority action

- Improve overall national environmental governance, in particular administrative capacity to support the green transition and coordination at the regional and local levels.

([192]) Flagship multi-country workshops in the reporting period are: Recast Drinking Water Directive (3 April 2025); Environmental compliance and governance (18 March 2025); Planning of Renewable Energy Projects (20 February 2025); Air Quality: Implementation of the revised Air Quality Directive (16 January 2025); Industrial safety: awareness raising of emerging risks linked with climate change and decarbonation (12 December 2024); Air quality: implementation of the NEC Directive to further mainstream air and broader pollution reduction in agricultural policy (25 September 2024); Industrial emissions transposition and implementation of the revised directive (12 September 2024); Noise: progress towards meeting Member States' noise limit values and EU reduction targets (5 June 2024); Best practice use of environmental footprint methods on the EU market (30 May 2024); Sustainable finance (9 November 2023); Textile waste separate collection, treatment and markets (3 October 2023); EU environmental funding and support (13 June 2023); Advisory service for businesses to go circular (24 April 2023); Digital product passport implementation (6 December 2022); Public involvement in planning and approval of renewable energy projects (17 November 2022); Environmental compliance and governance (14 November 2022); Biowaste management (19–20 September 2022); and Renewable energy projects: permit granting processes (13 June 2022). NB: The first flagship workshop on zero pollution for air, water and soil took place 9 February 2022.

Annex

2025 priority actions

Circular economy and waste management

Transitioning to a circular economy

- Speed up the transition to a circular economy by implementing an updated national strategy and the EU framework and recommendations, in particular to complement it with upstream circularity measures.
- Adopt measures to increase the CMUR.

Waste management

- Further shift reusable and recyclable waste away from incineration, including through economic instruments.
- Increase reuse of products and scale up waste recycling infrastructure associated with the higher steps of the waste hierarchy. In particular, improve collection and increase treatment capacity for bio-waste.
- Increase the collection and recycling rate of waste electronic and electric equipment (WEEE).
- Invest in waste prevention measures to reduce the total amount of waste generated.
- Develop EPR schemes for problematic waste and introduce fee modulation.
- Ensure the achievement of the 2025 waste targets, following the recommendations made by the Commission in the Early Warning Reports where applicable.

Biodiversity and natural capital

Global and EU biodiversity frameworks

- Submit to the CBD an updated NBSAP or national targets following the adoption of the Kunming-Montreal Global Biodiversity Framework.

Nature protection and restoration – Natura 2000

- Finalise the establishment of site-specific conservation objectives and measures for all Natura 2000 sites (including by adopting their management plans) and ensure their effective implementation.
- Ensure the effective implementation of Natura 2000 management plans and sufficient administrative capacity and financing both for Natura 2000 and the implementation of the Nature Restoration Regulation. Ensure implementation of Prioritised Actions Framework 2021-2027 (PAFs).

Recovery of ecosystems

Agricultural ecosystems

- Implement eco-schemes and agri-environmental measures and practices to address the environmental needs of Estonia.

Grasslands

- Promote active management of grasslands through extensive grazing to maintain the condition of these semi-natural habitats.

Wetlands/peatlands

- Implement peatland conservation and restoration measures and include such measures and objectives in the national restoration plans.

Forest ecosystems

- Ensure sustainable management of forests, i.a. by adopting the National Forest Programme post-2020 and consider the conservation objectives of Natura 2000 forest sites when developing the National Forest Management Plan.
- Improve conservation status of forests by promoting sustainable forest management and ensuring compliance with the Habitats Directive before granting/renewing permits for forest logging.

Marine ecosystems

- Step up implementation of the IAS Regulation, including with regard to enforcement and capacity of inspection authorities.

Zero pollution

Clean air

- As part of the NAPCP, take action to reduce emissions of air pollutants.
- Ensure full compliance with the current AAQD standards, also in light of future stricter requirements under the revised AAQD.

Industrial emissions

- Complete the correct transposition of the IED 1.0.
- Reduce industrial air pollution damage and intensity.
- Address the current implementation issues related to indirect release of pollutants to water.
- Engage with industry and environmental NGOs to ensure proper contribution to and implementation of BAT conclusions and ensure timely updates to permits following the publication of BAT conclusions.
- Ensure effective public participation and access to justice in relation with the IED.

Noise

- Complete and implement action plans on noise management.

Water quality and management

Water framework directive

- Improve river continuity and ecological flows, boosting efforts to introduce nature-based solutions to reduce hydromorphological pressures.
- Ensure periodic reviews of permits for discharges, abstractions and other water uses, including hydropower pressures.
- Reduce pollution from nutrients, chemicals, metals and saline discharges.
- Better justify exemptions to the achievement of good status.
- Improve the classification of water bodies and strengthen monitoring systems.
- Develop more robust programmes of measures, tackle obstacles identified in the implementation of measures and ensure adequate financing for implementation, including through better use of the cost recovery and polluter pays principle.

Floods directive

- FRMPs should provide details on how the FHRMs were used in the choice of measures and how to consider pluvial flooding.
- Better explain the choice and implementation of flood prevention and protection measures (prioritisation, monitoring, costs of measures).

Nitrates directive

- Tackle nutrient pollution, especially nitrates from agriculture, through the implementation of the Nitrates Directive.

Urban wastewater treatment directive

- Take the necessary measures to ensure full implementation of the current urban wastewater treatment directive, taking into account the new requirements of the recast directive.

Chemicals

- Upgrade the administrative capacities in implementation and enforcement towards a policy of zero tolerance for non-compliance.
- Increase involvement in the activities of the Forum for Exchange of Information on Enforcement of the European Chemicals Agency, including in the coordinated enforcement projects, called REFs.
- Increase customs controls and controls of products sold online with regard to compliance with chemicals legislations.

Climate action

- Implement all polices and measures that are needed to achieve targets laid down in the Effort Sharing Regulation (ESR) and the Land Use and Land-Use Change and Forestry (LULUCF) Regulation. More detailed priority actions will be set out after the submission and assessment of the final National Energy and Climate Plan (NECP).

Financing

- Use more national funding (for instance by increasing taxes in favour of the environment and reducing environmentally harmful subsidies), EU funding and private funding to help close the investment gap.

Environmental governance

Information, public participation and access to justice

- Make spatial data more widely accessible and prioritise environmental datasets in implementing the Inspire Directive, especially those identified as high-value spatial datasets for implementing environmental legislation.
- Ensure that relevant information on EIA and SEA procedures (including on public participation opportunities and on publication of final decisions) is electronically accessible, through at least a central portal or easily accessible points of access, at the appropriate administrative level.

Compliance assurance

- Encourage the use of training programmes provided by the Commission (or developed at the national level) covering the ELD and its interactions with the other national liability-related instruments, to ensure more efficient ELD implementation, improve the expertise of the competent authorities and raise awareness among all stakeholder groups.

EU-supported environmental capacity building

- Improve overall national environmental governance, in particular administrative capacity to support the green transition and coordination at the regional and local levels.