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2025 Environmental Implementation Review

Country Report - SLOVENIA

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

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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 Slovenia. 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 citizens, the distance to target, and financial implications. In Slovenia some challenges have lingered since the first Environmental Implementation Review in 2017 and require urgent action.

Many **habitats and species** in Slovenia are deteriorating. Forests, bogs, mires and fens, grasslands, freshwater habitats as well as mammals, amphibians and arthropods are faring particularly badly. Unsustainable agricultural practices in Natura 2000 sites are subject to an infringement proceeding and continue to impact negatively several bird species and a butterfly species. Shifting to agricultural practices that are compatible with the protected ecosystems has therefore become urgent.

Despite some progress in implementing the **Urban Wastewater Treatment Directive**, Slovenia is not yet fully complying with its requirements. In November 2023 the Court of Justice established that Slovenia is in breach of the directive in respect of the agglomeration of Ljubljana because of failure to treat all the wastewater collected. Slovenia should therefore continue to develop and modernise its infrastructures to increase its level of compliance and prepare for the implementation of the recast wastewater directive.

Slovenia is vulnerable to **climate** events, with a high risk of floods. Slovenia can do more to mitigate the impact of floods, for example by improving the implementation of flood risk management plans, increasing insurance coverage and investing where possible in nature-based solutions that address nature conservation while ensuring flood protection.

The overall **environmental investment needed** to enable Slovenia to meet its objectives in the areas of pollution prevention and control, circular economy and waste, water protection and management, and biodiversity and ecosystems is estimated to be EUR 1.8 billion per year, with bigger needs for water and the marine environment. The current investment gap in Slovenia stands at an estimated EUR 0.6 billion per year.

On **environmental governance**, Slovenia needs to better inform the public about their rights to access to justice, and in general to improve public access to courts to challenge administrative or regulatory decisions. This is particularly important concerning planning in the sectors of waste, water, nature and air quality.

On the positive side, Slovenia is continuing to improve its **waste management** system and is one of the few EU countries on track to meet both the targets to prepare 55 % of municipal waste for reuse and recycling and to recycle 65 % of all packaging waste by 2025. Slovenia has continued to improve air quality by reducing emissions in the context of the NAPCP and already meets its 2020-2029 emission reduction commitments, ensures full compliance with EU air quality standard and maintains downwards emission trends.

environmental implementation review, COM(2016) 316 final of 27 May 2016, <u>http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2016%3A316%3A51N</u>.

⁽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

Part I: Thematic areas

1. Circular economy and waste management

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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.

Slovenia's CMUR increased to 8.8 % in 2023, compared with the EU average of 11.8 % (Figure 1). This represents an increase from 2022, following a steady decrease since 2019.

Figure 1: CMUR (%), 2013-2023



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

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. As shown in Figure 2, Slovenia generated EUR 1.38 per kg of material consumed in 2023, a decrease from the years prior and below the EU average of EUR 2.23 per kg.

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



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

COM(2020) 98 final of 11 March 2020, <u>https://eur-lex.europa.eu/legal-</u> content/EN/TXT/?uri=COM%3A2020%3A98%3AFIN.

⁽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,

 Source:
 Eurostat, 'Resource productivity', env_ac_rp, last updated

 7 August
 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 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-valuechain 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.

Slovenia introduced its comprehensive circular economy roadmap in 2018 (⁵), setting out the path for the circularity transition in the country.

The circular economy is one of the priorities in the Slovenian national recovery and resilience plan (RRP) (⁶). The objective of component 5 is supporting the transition of Slovenia's linear economy to a low-carbon circular economy, in line with Slovenia's development strategy 2030 (⁷). It addresses challenges related to achieving climate neutrality by 2050, increasing material productivity, promoting energy efficiency and eco-innovation, improving the waste management system and strengthening the wood-processing chain. The circular economy component also introduces green budgetary planning.

As part of the plan, Slovenia has developed a framework for sustainable and green transformation, with the objective of accelerating the transition to a circular economy. In this context, the new legislation improves extended producer responsibility schemes and promotes the integration of secondary raw materials. As part of the reform, Slovenia established a one-stop shop to support businesses, in particular small and medium-sized enterprises, in their transition to a circular economy.

Investments into circular economy business and funding of research and innovation are enhanced through the Plan as well.

Links between circularity climate policies are explicitly made. Slovenia's long-term climate strategy to 2050 focuses on increasing material efficiency through the use of less materials, by designing products for longer lifetimes, with reparability and longer product use times, by using less emitting and recyclable materials, by reusing and recycling materials and by sharing products.

Green public procurement

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

Since 2019, the green public procurement team at the Ministry of the Environment, Climate and Energy (⁸) has been offering substantive promotion and support. The team has built its capacity and human resources mainly through the LIFE integrated project 'Care 4 climate'. Its activities (training, helpdesk, guidelines) have increased the capacity of public authorities regarding green public procurement and circular procurement.

The reforms included in the circular economy component of the national RRP strengthened the existing green public procurement system by integrating the principles of circular economy.

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

^{(&}lt;sup>3</sup>) European Commission, 'Proximity and social economy ecosystem', European Commission website, <u>https://singlemarket-economy.ec.europa.eu/sectors/proximity-and-socialeconomy_en.</u>

⁽⁴⁾ Circular Economy Stakeholder Platform (<u>https://circulareconomy.europa.eu/platform/en/strategies</u>).

^{(&}lt;sup>5</sup>) Ministry of the Environment and Spatial Planning of the Republic of Slovenia, Roadmap towards the Circular Economy in Slovenia, Ljubljana, 2018, <u>https://circulareconomy.europa.eu/platform/sites/default/files</u>/roadmap towards the circular economy in slovenia.pdf.

⁽⁶⁾ Government Service of the Republic of Slovenia for Development and European Cohesion Policy, Načrt za Okrevanje in Odpornost [Recovery and resilience plan], 2021, <u>https://www.gov.si/assets/organi-v-sestavi/URSOO/01 si-</u> rrp 23-7-2021.pdf.

⁽⁷⁾ Government of the Republic of Slovenia, Slovenian Development Strategy 2030, Ljubljana, 2017, <u>https://www.gov.si/assets/ministrstva/MKRR/Strategijarazvoja-Slovenije-2030/Slovenian-Development-Strategy-2030.pdf</u>.

^{(&}lt;sup>8</sup>) The team was in the Ministry of the Environment and Spatial Planning before a government reorganisation.

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 management scheme aimed at reducing the environmental impacts of organisations.

As of September 2024, Slovenia had 213 products out of 98 977, and 91 licences out of 2 983, registered in the EU ecolabel scheme. This shows a relatively low take-up of the products and licences but an increase from previous years (⁹). Moreover, 10 organisations in Slovenia are currently registered in EMAS, the same as in October 2021 (¹⁰).

The CMUR of Slovenia increased by 0.5 percentage points in 2023. This represents some progress towards the 2022 priority action to take measures to increase the rate.

No priority actions were suggested for Slovenia on the circular economy in the 2022 report, as they all focused on waste. Because Slovenia's comprehensive circular economy policy framework is from 2018 and the more recent measures were implemented under the RRP, the country's circular economy policy landscape seems to be rather fragmented.

2025 priority actions

- Develop a unified circular economy strategy focusing on waste prevention and resource efficiency, especially for priority waste streams.
- Adopt measures to increase the circular material use rate.

Waste management

Turning waste into a resource is supported by:

- 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 (CRMs), 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 Slovenia has increased over the last 12 years (Figure 3), primarily driven by the largest waste categories, namely soils and mineral waste from construction and demolition. Excluding the major mineral waste categories results in an overall downward trend in generated waste, primarily driven by decreases in mixed and combustion waste, while recyclable waste, the largest category, showed a slight increase. Slovenia's GDP showed a steady growth from 2014, but dropped in 2020, most likely due to the COVID-19 outbreak. Waste generation followed a similar trend. Signs of decoupling between total waste generation and economic development are only visible when excluding major mineral waste.

⁽⁹⁾ European Commission, 'EU Ecolabel facts and figures', European Commission website, <u>http://ec.europa.eu/environment/ecolabel/facts-and-figures.html</u>.

^{(&}lt;sup>10</sup>) As of October 2024. European Commission, 'EMAS register', European Commission website, <u>https://webgate.ec.europa.eu/emas2/public/registration/list</u>.

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



NB: Waste generation data for odd-numbered years are interpolated.

Sources: Eurostat, 'GDP and main components (output, expenditure and income)', nama_10_gdp, accessed 15 October 2024, <u>https://ec.europa.eu/eurostat/databrowser/view/nama 10 gdp cu</u> <u>stom 9301905/default/table</u>; Eurostat, 'Generation of waste by waste category, hazardousness and NACE Rev. 2 activity', env_wasgen, last updated 30 September 2024, accessed 22 October 2024, <u>https://ec.europa.eu/eurostat/databrowser/view/env_wasgen/defaul</u> <u>t/table?lang=en</u>; 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.

Critical raw materials

Slovenia currently does not have a national framework that focuses on the comprehensive handling of CRMs. Slovenia also does not have a specific national or subnational strategy on CRM circularity. However, CRMrelevant aspects are covered by certain specific approaches such as the management of batteries and accumulators as well as waste batteries and accumulators, with the aim of also improving the circularity of CRMs. Slovenia does not have measures to promote the substitution of CRMs and their more efficient use in products. It also does not have measures to require reductions in the use of CRMs.

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 preparing for

(¹¹) European Commission, EU construction & demolition waste management protocol including guidelines for pre-demolition and pre-renovation audits of construction works, <u>https://op.europa.eu/en/publication-detail/-</u> /publication/d63d5a8f-64e8-11ef-a8ba-01aa75ed71a1/language-en. reuse and recycling operations are preferred over incineration and landfilling from an environmental perspective for most of the individual fractions of construction and demolition waste. If available technology were to be applied, it is estimated that the increase in preparing for reuse and recycling would save an additional 33 Mt of GHG emissions annually (more than the combined annual GHG emissions from Estonia, Latvia and Luxembourg).

The rate of preparing mineral construction and demolition waste for reuse and recycling in Slovenia in 2022 was 70.6 %, compared with the EU average of 79.8 %. Measures to further increase the rate include separate collection at source, for instance through digitalised pre-demolition audits (¹²) ('resource assessments'), and extended producer responsibility and other economic instruments as well as upstream measures such as increasing the recycled content in construction products and the circular design of construction works.

Boosting implementation – the 2023 Waste Early Warning Report

This section focuses on the management of municipal waste, for which EU law sets mandatory recycling targets (¹³). In June 2023, the Commission published the *Waste Early Warning Report* (¹⁴) identifying the general trends in waste management and the Member States at risk of missing 2025 waste targets (see Figure 4). Slovenia was not considered at risk of missing the municipal waste target or the packaging waste target.

(13) 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).

⁽¹²⁾ European Commission, EU construction & demolition waste management protocol including guidelines for pre-demolition and pre-renovation audits of construction works, <u>https://op.europa.eu/en/publication-detail/-</u> /publication/d63d5a8f-64e8-11ef-a8ba-01aa75ed71a1/language-en.

^{(14) &}lt;u>https://environment.ec.europa.eu/publications/waste-early-warning-report_en.</u>

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 both 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. Eleven Member States have used this prerogative for 2025 targets. Slovenia was not among them.

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 do not achieve the targets of the Waste Framework Directive (¹⁵), the Packaging and Packaging Waste Directive¹⁶ and the Directive on Waste Electrical and Electronic Equipment (¹⁷).

Municipal waste

Municipal waste generation in Slovenia increased between 2010 and 2022. In 2022, the country generated 489 kg of municipal waste per capita, which is below the estimated EU27 average of 513 kg per capita in the same year (¹⁸) (Figure 5).

Slovenia's rate of preparing municipal waste for reuse and recycling has significantly increased over recent years (Figure 6). In 2022, it was 63 %, which is significantly above the estimated EU27 average of 49 % in the same year. This increase is mainly due to increased material recycling. However, the provisional reported recycling rate based on the new calculation method for the 2025 target was 10–20 percentage points lower.

Municipal waste incineration started in 2015 and was at the level of 13 % of municipal waste generated in 2022. From 2010, the landfilling rate decreased significantly to 8 % in 2022 (Figure 5).

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



(¹⁷) Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (OJ L 197, 24.7.2012, p. 38), <u>Directive -</u> 2012/19 - EN - EUR-Lex.

(18) Eurostat, 'Municipal waste by wate management operations', env_wasmun, <u>https://ec.europa.eu/eurostat/databrowser/view/ENV_WASM_UN/default/table?lang=en&category=env.env_was.env_wasst.</u>

^{(&}lt;sup>15</sup>) Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, <u>Directive - 2008/98 - EN - Waste framework directive - EUR-Lex.</u>

^{(&}lt;sup>16</sup>) European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (OJ L 365, 31/12/1994, p. 10–23), <u>Directive - 94/62 - EN - EUR-Lex.</u>

Source: Eurostat, 'Municipal waste by waste management operations', env_wasmun, accessed 22 October 2024,

https://ec.europa.eu/eurostat/databrowser/view/ENV_WASMUN/def ault/table.

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



NB: There is a break in series in 2013. As of reference year 2020, new reporting rules apply for calculating recycled municipal waste pursuant to the targets laid down in Article 11.2(c-e) of Directive 2008/98/EC. Slovenia has implemented the new reporting rules since reference year 2021 (ARSO/MOPE, 2024).

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

The data shown in Figures 5 and 6 differ from the data reported by the Slovenian authorities to show compliance with the preparing for reuse and recycling target of 55 % for 2025, as laid down in the Waste Framework Directive. Slovenia reported a preparing for reuse and recycling rate in response to the target that was in the range of 10–20 percentage points below the recycling rate shown in Figure 5 for reference year 2022.

Packaging waste

Slovenia's packaging waste generation has continuously increased since 2010 (Figure 7). In 2022, the country generated 142 kg per capita of packaging waste, which is still significantly below the estimated European average of 186 kg per capita in the same year (¹⁹). Since reference year 2021, all packaging placed on the market has been included in the reported waste generation data (²⁰).

(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.



Figure 7: Packaging waste generation, 2010–2022

Source: Eurostat, 'Packaging waste by waste management operations', env_waspac, last updated 23 October 2024, https://ec.europa.eu/eurostat/databrowser/view/ENV WASPAC cus tom 842634/default/table?lang=en.

Slovenia's overall packaging waste recycling rate shows an upward trend between 2010 and 2017 (Figure 8). However, in 2021 it decreased to 55 %, which is below the 2010 level, but increased to 63 % again in 2022. This can be attributed to a switch towards using the reports of waste treatment operators as the primary data source, and to improvements in ensuring the quality, correctness and accuracy of data by introducing controls in the application for reporting (²¹).

Figure 8: Packaging waste recycling rates, 2010–2022



NB: As of reference year 2020 the rules for calculating recycled packaging waste changed, pursuant to Article 6a of Directive 94/62/EC. Slovenia has implemented the new reporting rules since reference year

for Slovenia, Slovenian Environment Agency and of Ministry of the Environment, Climate and Energy.

(²¹) ibid.

⁽²⁰⁾ ARSO/MOPE, 2024, Information provided during the Eionet review of the draft EEA country profile on waste management

2021 (ARSO/MOPE, 2024). For steel and aluminium data are only available from 2020 onwards.

Source: Eurostat, 2024, 'Packaging waste by waste management operations', env_waspac, last updated 23 October 2024, accessed 28 October 2024, <u>https://ec.europa.eu/eurostat/databrowser/view/ENV_WASPAC_cus</u> tom 842634/default/table?lang=en.

The overall packaging waste recycling rate is mainly driven by paper and cardboard packaging waste, as this fraction constitutes the largest share of all packaging waste generated. In 2021 the packaging waste recycling rate decreased below the 2025 target, which can mainly be attributed to a change in data collection method and improvements in data quality. According to data for 2022, Slovenia reported recycling rates above the 2025 recycling targets for all packaging materials except paper and cardboard and total packaging waste.

Policies in place to encourage waste prevention

The national waste management plan of Slovenia was adopted in 2022 (²²). The national waste prevention programme (NWPP) for 2022 and onwards is integrated in the national waste management plan and will be reviewed every fourth year (²³). In this programme, the measures are assessed annually against the 2020–2035 goals. An analysis of data on waste management for reference year 2021 was carried out, and compliance with the waste management plan (2022) was assessed. The analysis is not made public (²⁴).

The NWPP highlights several objectives connected to waste prevention, such as reducing material consumption, creating closed material loops, supporting the usage of less resources and reusing materials and products. The priority waste streams for prevention are construction and demolition waste, food waste, household and municipal waste, waste electrical and electronic equipment, bulky waste, waste textiles and waste lightweight plastic carrier bags. The programme refers to the quantitative targets set at the EU level and does not establish additional national targets. No financial budget for waste prevention measures is mentioned in the NWPP.

(²²) Government of the Republic of Slovenia, 2022, PROGRAM RAVNANJA Z ODPADKI in PROGRAM PREPREČEVANJA ODPADKOV REPUBLIKE SLOVENIJE (2022) Besides the NWPP, the Ministry of Agriculture, Forestry and Food has adopted a strategy to reduce food losses and food waste in the food supply chain. In 2015, a pilot project was implemented with the aim of monitoring and analysing data on food waste, focusing on individual waste streams and identifying the proportion of food waste in municipal waste, including information on home composting. At present, initiatives focus on five areas: primary production, processing and manufacturing, retail and other distribution of food, restaurants and food services, and households. The country is focusing on education and awareness campaigns, promoting the use of local agricultural products to reduce transportationrelated waste, and supporting sustainable, short food supply chains (²⁵).

Policies to encourage separate collection and recycling

A high share of the population is covered by a highconvenience collection service for paper and cardboard, metals, plastics, glass and bio-waste. For these fractions, door-to-door collection is the dominant system, complemented by low-density bring points and civic amenity sites. Packaging waste is mainly collected through door-to-door commingled collection. Glass packaging is mainly collected through low-density bring points. Bio-waste (food and green garden waste together) is home composted and/or collected through door-to-door separate collection, providing a convenient system for citizens. Textiles are collected at low-density bring points and civic amenity sites. The separate collection of all fractions is also mandatory for nonhouseholds in Slovenia (²⁶).

Separating waste at source is supported through a fully rolled-out pay-as-you-throw system, covering 100 % of the population. The system is mostly based on waste container volume and the frequency of collection (²⁷). The Slovenian extended producer responsibility system covers packaging waste from both household and nonhousehold sources for all packaging materials. However, there is no advanced fee modulation in place, that is, fee modulation within the broad material categories such as higher fees for difficult-to-recycle types of plastic or

^{(&}lt;sup>23</sup>) <u>Waste Prevention Country Profile – Slovenia, EEA</u> assessment of 15 March 2024.

^{(&}lt;sup>24</sup>) ARSO/MOPE, 2024. Information provided during the Eionet review of the draft EEA country profile on waste management for Slovenia by the Slovenian Environment Agency and the Ministry of the Environment, Climate and Energy.

⁽²⁵⁾ Food Waste, Slovenia, 2016

⁽²⁶⁾ European Environment Agency, Early warning assessment related to the 2025 targets for municipal and packaging waste – Slovenia, Copenhagen, 2022, <u>https://www.eea.europa.eu/publications/many-eu-memberstates/slovenia/view.</u>

^{(&}lt;sup>27</sup>) Technical note accompanying the EEA briefing 'Economic instruments and separate collection – key instruments to increase recycling' – European Environment Agency, File (https://www.eea.europa.eu/publications/economicinstruments-and-separate-collection/technical-noteaccompanying-the-eea/view) accessed 18 January 2024.

combinations of materials (²⁸). Slovenia has a packaging tax that is based on the environmental burden unit as defined in the regulation on an environmental levy on environmental pollution from packaging waste (²⁹).

There is a voluntary deposit return system covering only reusable packaging (30). However, the introduction of a mandatory deposit return system for packaging could boost reuse and further increase the capture of recyclable waste (31).

Policies to discourage landfilling or incineration

Slovenia has a landfill tax of EUR 11/tonne of landfilled non-hazardous waste. The landfill tax is low compared with other Member States. However, the landfill rate is already very low. A landfill ban for biodegradable waste was introduced in 2011. There is no tax on incineration of municipal waste and there is no plan to implement such a tax in the future (³²).

The Commission's 2022 Environmental Implementation Review (EIR) recommended that Slovenia (i) Introduce new policies, including economic instruments, to further implement the waste hierarchy (i.e. promote prevention, and make reuse and recycling more economically attractive) and/or implement the policies which are already in place; (ii) ensure that a waste management plan in line with the revised Waste Framework Directive is in place; (iii) close and rehabilitate, as quickly as possible, the remaining illegal landfills to avoid charges from infringement procedures.

Slovenia has made some progress on all three actions, but further progress is required as regards the first recommendation. As regards the third recommendation, while there is currently still one open infringement case concerning illegal landfills, the European Court of Justice has delivered its ruling (³³).

2025 priority actions

- Invest in waste prevention measures to reduce the total amount of waste generated, which has increased over the last 12 years.
- Increase the collection and recycling rate of waste electronic and electric equipment (WEEE).
- Introduce the deposit and return system(-s) (DRS), as mandated by the new Packaging and Packaging Waste Regulation, to capture more recyclable materials and improve the quality of recyclates.
- Ensure the achievement of the 2025 waste targets, following the recommendations made by the Commission in the early warning reports where applicable.

 (³¹) Slovenia, 2025 EU waste recycling targets – State of play, Publications Office of the European Union (https://data.europa.eu/doi/10.2779/51239) accessed 12 March 2024.
 (³²) ibid.

(³³)

⁽²⁸⁾ Slovenia-Early Warning Assessment Related to the 2025 Targets for Municipal and Packaging Waste, File, European Environment Agency (EEA) (https://www.eea.europa.eu/publications/manyeu-member-states/slovenia/view) accessed 7 March 2024..

^{(&}lt;sup>29</sup>) Regulation on an environmental levy on environmental pollution from packaging waste Official Gazette of the Republic of Slovenia, Nos. 32/06, 65/06, 78/08, 19/10, 68/17, 82/18 and 44/22 – ZVO-2, (https://pisrs.si/pregledPredpisa?id=URED3967) accessed 9 November 2024.

^{(&}lt;sup>30</sup>) Slovenia – Early Warning Assessment related to the 2025 Targets for Municipal and Packaging Waste, File, European Environment Agency (EEA)

https://curia.europa.eu/jcms/upload/docs/application/pdf/202 5-05/cp250059en.pdf

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 measures to enable implementation and commitments to support global biodiversity. A BDS actions tracker (³⁴) and a dashboard of indicators (³⁵) provide information on implementation progress. The recently adopted EU Nature Restoration Regulation (36) 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 (CBD) its report on GBF-aligned EU targets that stem from the BDS and from other policy instruments under the European Green Deal.

- (³⁴) EU Biodiversity Strategy Actions Tracker (<u>https://dopa.jrc.ec.europa.eu/kcbd/actions-tracker/</u>).
- (³⁵) EU Biodiversity Strategy Dashboard (<u>https://dopa.jrc.ec.europa.eu/kcbd/EUBDS2030-</u> dashboard/?version=1).

Member States' national biodiversity strategies and action plans (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.

Slovenia has submitted to the CBD its 2020-2030 national environmental action programme (NEAP), adopted in March 2020. The programme defines guidelines, goals, tasks and measures in different areas, including biodiversity conservation and the protection of valuable natural features as well as guidelines and measures for compliance with international environmental commitments. Slovenia has also uploaded the overall national goals into the CBD, indicating links to the global biodiversity targets or their elements.

The NBSAP is integrated into a 10-year NEAP (2020–2030) adopted by the Slovenian Parliament in March 2020 (37), and it reflects the commitments and actions of the EU biodiversity strategy.

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 additional details on biodiversity financing and

investments for Slovenia, see Chapter 5.

Nature protection and restoration – Natura 2000

Natura 2000 (³⁸), 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 <u>Directives. These</u> objectives are to ensure the long-term

- (³⁷) National Assembly of the Republic of Slovenia, Resolution on the national environmental action programme 2020–2030 (ReNPVO20-30), <u>https://www.cbd.int/doc/world/si/si-nbsapv2-en.pdf</u>, Chapter 10.
- (³⁸) 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.

^{(&}lt;sup>36</sup>) 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), <u>http://data.europa.eu/eli/reg/2024/1991/oj</u>; see also the Commission web page on the law (<u>https://environment.ec.europa.eu/topics/nature-andbiodiversity/nature-restoration-law_en</u>).

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) (³⁹); 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.

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. The Natura 2000 network enables 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.

Slovenia hosts 60 habitat types (⁴⁰) and 202 species (⁴¹) covered by the Habitats Directive. The country also hosts populations of 76 bird taxa listed in the Birds Directive Annex I (⁴²).

In 2023, Slovenia had the largest coverage by Natura 2000 in the EU-27, with 37.9 % of the national land area of Slovenia covered (EU coverage 18.6 %). SPAs classified under the Birds Directive were covering 25 % (EU coverage 12.8 %) and SCIs under the Habitats Directive were covering 32.7 % (EU coverage 14.3 %) of the Slovenian territory. While the Natura 2000 network on land can be considered complete, there is still a gap in the classification of marine SPAs for the Mediterranean shag in Slovenian marine waters, for which an

infringement procedure has been ongoing since 2021. In the absence of concrete action by the Slovenian authorities, the Commission may decide to take the infringement case further.

Taking into account both Natura 2000 and other nationally designated protected areas, Slovenia legally protects 40.5 % of its terrestrial areas (EU-27 coverage 26.1 %) and 5 % of its marine areas (EU-27 coverage 12.3 %) (43).

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, <u>https://www.eea.europa.eu/data-and-maps/dashboards/natura-2000-barometer</u>.

Designating special areas of conservation and setting site-specific conservation objectives and measures

In order to ensure that SCIs contribute to the objectives of the Habitats Directive, Member States must designate them as SACs, setting site-specific conservation objectives based on the ecological needs of the species and habitats present on the sites. The site-specific conservation objectives must be defined in terms of attributes and targets that cover the properties of the feature of interest that are necessary to describe its condition as either favourable or unfavourable. These

^{(&}lt;sup>39</sup>) 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.

⁽⁴⁰⁾ European Environment Agency (EEA), 'Number of habitats and species per Member State', Article 17 dashboard, Annex I total, 19 December 2019, <u>https://www.eea.europa.eu/themes/biodiversity/state-ofnature-in-the-eu/article-17-national-summarydashboards/general-information-on-habitats-and-species.</u>

^{(&}lt;sup>41</sup>) EEA, 'Number of habitats and species per Member State', Article 17 dashboard, 19 December 2019, <u>https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/article-17-national-summary-dashboards/general-information-on-habitats-and-species</u>.

⁽⁴²⁾ EEA, 'Number of bird species/populations per Member State', Article 12 dashboard, Annex I total, last updated 11 May 2023, <u>https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/article-12-national-summary-dashboards/general-information-on-bird-species-populations.</u> This counting only takes into account birds taxa for which information was requested.

⁽⁴³⁾ EEA, 'Protected areas', env_bio4, terrestrial protected area percentage for 2021 and marine protected area percentage for 2019, March 2022, <u>https://ec.europa.eu/eurostat/databrowser/view/env_bio4/de</u> <u>fault/table?lang=en</u>.

objectives must address the key pressures and threats present on the site. Article 6 of the Habitats Directive requires Member States to establish and implement conservation measures for the realisation of the objectives of the site.

The six-year deadline set by the Habitats Directive to designate an SCI as an SAC and to establish appropriate conservation objectives and measures has expired for all but a few sites in Slovenia.

Although all SCIs have been designated as SACs, and conservation objectives and measures have been established, some conservation measures are not yet sufficiently fit for purpose to achieve the objectives of the SACs. The implementation of the necessary conservation measures has been delayed for many sites.

Slovenia is currently addressing some of these shortcomings within the LIFE integrated project for enhanced management of Natura 2000 in Slovenia. Moreover, Slovenia seeks to improve implementation through better integration of conservation measures into the common agricultural policy (CAP) strategic plan, better implementation of cohesion projects and funding from national sources.

Slovenia still has to improve the quality of some conservation objectives and of the implementation of certain conservation measures for the designated sites.

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 (⁴⁴).

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.

Figure 10: Assessments of conservation status for 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 area 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.

https://www.eea.europa.eu/publications/state-of-nature-inthe-eu-2020.

⁽⁴⁴⁾ EEA (2020), State of Nature in the EU: Results from reporting under the Nature Directives 2013–2018, Publications Office of the European Union, Luxembourg, 2020,

Figure 11: Assessments of conservation status for 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 area 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.

According to the report submitted by Slovenia on the conservation status of habitats and species covered by Article 17 of the Habitats Directive for 2013–2018 (⁴⁵), the share of assessments for habitats in good conservation status in 2018 was 38.2 %. The share of assessments for protected species in good conservation status in 2018 was 29.22 %, On birds, 82 % of the breeding species showed short-term increases or stable population trends (for key wintering species this figure was 40 %).

The habitat groups that have been faring particularly badly are forests, bogs, mires and fens, grasslands and freshwater habitats. On species, groups that have been faring particularly badly are mammals, amphibians and arthropods, while notably there are still knowledge gaps on the conservation status of species.

The main pressures are from agriculture, urban development, changes in water regime, forestry and other extraction of resources.

Slovenia has been under an infringement proceeding since July 2019 for its failure to address unsustainable agricultural practices in Natura 2000 sites, which is resulting in the deterioration of several bird species and a butterfly species. It is essential that Slovenia takes the necessary measures to fully comply with the requirements of the Habitats Directive.

To make significant progress in restoring and maintaining the favourable conservation status of protected habitats and species, Slovenia should focus its implementation of conservation and restoration measures on the habitats and species in bad conservation status and/or declining trends, such as (i) grasslands and associated species, by addressing agricultural pressures; (ii) forests and associated species, by addressing forestry practices; and (iii) freshwater habitats and associated species, by addressing changes in the water system.

Little progress has been made since the 2022 EIR.

2025 priority actions

- Strengthen the integration of biodiversity actions into other policies, e.g. energy, agriculture, fisheries, forestry, urban and infrastructure planning and sustainable tourism, and promote communication between stakeholders.
- Reinforce action for habitats and species in unfavourable conservation status, for example through restoration measures, increased connectivity, better policy coordination and integration, and increased funding.

Recovery of ecosystems

Agricultural ecosystems

The BDS works alongside the 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, adopted by the European Commission in February 2025, sets a roadmap

nature-in-the-eu/article-17-national-summarydashboards/conservation-status-and-trends.

⁽⁴⁵⁾ EEA, 'Conservation status and trends of habitats and species', 19 December 2019, accessed December 2021, <u>https://www.eea.europa.eu/themes/biodiversity/state-of-</u>

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(⁴⁶).

The CAP and national CAP strategic plans (SPs) 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 for the 2023–2027 programming period. CAP is the largest source of funding for the implementation of EU environment policy, and this is particularly true for biodiversity. SPs continue to support the protection of soil, water, air quality and biodiversity.

While certain CAP result indicators focus on interventions favouring sustainable agriculture practices that regenerate ecosystems, the impact of these measures is difficult to assess. The uptake of the ecoschemes is voluntary for farmers.

The utilised agricultural area in Slovenia increased from 479 650 ha in 2012 to 484 060 ha in 2020 and decreased to 479 430 ha in 2022 (47).

Landscape features are 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 non-productive agricultural land. Based on the Land Use/Cover Area Frame Survey landscape features estimates, the share of agricultural land covered by nonproductive landscape features in Slovenia is 5.9%, slightly above the EU average. At the EU level, landscape features cover 5.6% of agricultural land.

In 2024, the CAP basic regulations were amended (⁴⁸) 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 areas or landscape features on the farm. The amended regulations set out 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. Slovenia has therefore introduced a new eco-scheme, the non-productive areas and elements scheme.

The recently adopted Nature Restoration Regulation (⁴⁹) 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 (⁵⁰). One of these indicators is the 'share of agricultural land with high-diversity landscape features'.

Organic farming practices are highly beneficial to biodiversity. As shown in Figure 12, it is estimated that 11.10 % of Slovenia's utilised agricultural land area is used for organic farming. This is slightly above the EU average of $10.50 \% (^{51})$. Slovenia is contributing above average to the EU's goal of having 25 % of agricultural land under organic farming by 2030.





from controls and penalties (OJ L, 2024/1468, 24.5.2024), http://data.europa.eu/eli/reg/2024/1468/oj.

- (⁴⁹) 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) <u>http://data.europa.eu/eli/reg/2024/1991/oj</u>.
- (50) 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'.
- (⁵¹) European Commission, 'Agriculture biologique au sein de l'union européenne', <u>https://agriculture.ec.europa.eu/document/download/c67458e</u> d-ec50-4762-ae68-341763ab93c2 fr?filename=factsheet-

⁽⁴⁶⁾ European Commission, Vision for Agriculture and Food, <u>https://agriculture.ec.europa.eu/overview-vision-agriculture-food/vision-agriculture-and-food en</u>

⁽⁴⁷⁾ Eurostat, 'Utilised agricultural area by categories', tag00025, accessed 5 December 2024, <u>https://ec.europa.eu/eurostat/databrowser/view/tag00025/de</u> <u>fault/table?lang=en</u>.

⁽⁴⁸⁾ 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

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 Slovenia.

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 (52) 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

(⁵²) 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://eurlex.europa.eu/legal-content/EN/TXT/?uri=celex:52023PC0416.

https://environment.ec.europa.eu/system/files/2023-

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 Slovenia (53).

The greatest contributor to Slovenia's unhealthy soils is high mercury concentrations exceeding 200 μ g/kg, which affect 19 % of the land. 8 % of the national territory has a high or very high susceptibility to topsoil compaction. Both contributors to unhealthy soils are mostly found in the north-west of the country.

In the 2020–2030 NEAP, Slovenia sets guidelines and measures to upgrade the protection and sustainable management of soil and to maintain its ecosystem services (54).

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.

In Slovenia there are extensive areas of semi-natural grasslands, including several habitat types listed in Annex I of the Habitats Directive. Grasslands in Slovenia are also among the most threatened habitats, mainly due changes in agricultural practices, such as to abandonment and intensification. Effective conservation of these habitats and their biodiversity requires active management, such as periodic grazing or mowing, to maintain their ecological value and prevent degradation.

According to assessments of the latest reporting period (2013–2018) under Article 17, the conservation status of grassland habitats in Slovenia is predominantly ranked as 'unfavourable - bad' (55). The primary pressures and

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

(⁵⁴) National Assembly of the Republic of Slovenia. Resolution on the national environmental action programme 2020-2030 (ReNPVO20-30), https://www.cbd.int/doc/world/si/si-nbsapv2-en.pdf, Table 2.

(⁵⁵) Article 17 web tool, 'Habitat assessments at Member State level'. natureart17.eionet.europa.eu/article17/habitat/report/?period=5&gr oup=Grasslands&country=SI®ion=.

Commission staff working document - Impact assessment (⁵³) 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.

threats for Slovenian grasslands include agriculture, development and natural processes.

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 greenhouse gas (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.

In Slovenia, wetlands and peatlands are represented by several habitat types listed in Annex I of the Habitats Directive. The overall assessment of the latest reporting period (2013–2018) under Article 17 shows that the conservation status of these habitats is generally unfavourable (⁵⁶). The main pressures on and threats to Slovenian wetland and peatland habitats include agricultural activities, forestry, resource extraction, human-induced changes in water regimes, mixed-source pollution, natural processes, energy production and infrastructure development (e.g. transport system expansion), but also climate change and invasive species()⁵⁷.

These pressures reflect the broader challenges in managing and protecting Slovenia's peatland and wetland ecosystems, which require focused conservation actions to mitigate habitat loss and degradation.

- oup=Bogs%2C+mires+%26+fens&country=SI®ion=.
 (⁵⁷) <u>Resolucija o Nacionalnem programu varstva okolja za obdobje</u> 2020–2030 (ReNPVO20–30) (PISRS)
- (⁵⁸) 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, <u>https://ec.europa.eu/transparency/documents-</u> <u>register/detail?ref=COM(2023)728&lang=en</u>
- (⁵⁹) EEA, State of Nature in the EU: Results from reporting under the Nature Directives 2013–2018, Publications Office of the European Union, Luxembourg, 2020, <u>https://www.eea.europa.eu/publications/state-of-nature-inthe-eu-2020</u>.

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 Commission guidelines on forestry management were published in 2023. They covered biodiversityfriendly 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 (⁵⁸) 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 (⁵⁹). The share of forested areas in the EU with a bad conservation status increased from 27 % in 2015 to 31 % in 2018.

In Slovenia, forests covered 61.5 % of its territory in 2020 (⁶⁰) and more than 75 % of the assessments reveal a bad to poor status (⁶¹). A total of 34 000 ha in Slovenia is covered by primary forests (⁶²).

- (60) EEA, forest information system for Europe, 'Countries FISE country factsheets', forest information system for Europe website, <u>https://forest.eea.europa.eu/countries</u>.
- (⁶¹) EEA, 'Conservation status and trends of habitats and species', 19 December 2019, accessed December 2021, <u>https://www.eea.europa.eu/themes/biodiversity/state-of-</u> <u>nature-in-the-eu/article-17-national-summary-</u> <u>dashboards/conservation-status-and-trends</u>; Article 17 web tool, 'Habitat assessments at Member State level', <u>natureart17.eionet.europa.eu/article17/habitat/report/?period=5&gr</u> oup=Forests&country=Sl®ion=.
- (62) European Commission: Joint Research Centre, Mapping and assessment of primary and old-growth forests in Europe, Publications Office of the European Union, Luxembourg, <u>https://publications.irc.ec.europa.eu/repository/handle/JRC124</u> <u>671</u>, p. 13.

⁽⁵⁶⁾ Article 17 web tool, 'Habitat assessments at Member State level', <u>nature-</u> <u>art17.eionet.europa.eu/article17/habitat/report/?period=5&gr</u>

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



Good Poor Bad Unknow

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

The EU Timber Regulation (EUTR) (⁶³) prohibits the placing on the EU market of illegally harvested timber. According to the EUTR, Member States' competent authorities must conduct regular checks on operators and traders and apply penalties for non-compliance. With the amendment of Article 20 of the EUTR, reporting every two years has been changed to annual reporting, and covers the calendar year as of 2019.

On 29 June 2023, the Regulation on Deforestation-free Products (EUDR) (64) entered into force (65). 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.

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 have to report updates by 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 (⁶⁶), Member States must include as part of their set of GES characteristics any threshold values for the descriptors in the MSFD that

The Commission assessed the updated monitoring programme reported by Member States in 2020 (⁶⁸). 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.

may have been established in cooperation with other

Member States at the EU or regional level (67).

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

methods for monitoring and assessment, and repealing Decision 2010/477/EU (OJ L 125, 18.5.2017, p. 43), <u>https://eur-lex.europa.eu/eli/dec/2017/848/oj/eng.</u>

(⁶⁷) Commission Notice on the threshold values set under the MSFD (Directive 2008/56/EC) and Commission Decision (EU) 2017/848 (C/2024/2078).

^{(&}lt;sup>63</sup>) 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), <u>https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32010R0995</u>.

^{(&}lt;sup>64</sup>) <u>Regulation on Deforestation-free products - European</u> <u>Commission</u>.

^{(&}lt;sup>55</sup>) 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.

⁽⁶⁶⁾ 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

⁽⁶⁸⁾ Communication from the Commission – Commission notice on recommendations on the 2020 updated reports for Article 11 of the Marine Strategy Framework Directive (2008/56/EC), C(2023) 2203 final of 4 April 2023, https://environment.ec.europa.eu/system/files/2023-04/C 2023 2203 F1 COMMUNICATION FROM COMMISSION EN V5 P1 2532109.PDF.

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



 D1- Biodiversity
 D5- Eutrophication
 D9- Contaminants in seafood

 D2- Non-indigenous species
 D6- Sea-floor integrity
 D10- Litter

 D3- Commercial fish and shellfish
 D7- Hydrographical changes
 D11- Energy, incl. underwater noise

 D4- Food webs
 D8- Contaminants
 D8- Contaminants

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

Slovenia's updated programme of measures revealed gaps for most descriptors, while D6 and D10 were found to be adequately covered.

For sea-floor integrity (D6), additional measures effectively tackle physical loss and disturbance, while for marine litter (D10), new measures target litter input from various sources, although micro-litter is only partially addressed.

Measures for underwater noise (D11) mostly arise from regional or international organisations, without a clear explanation of their binding status in Slovenia's waters.

Moreover, no new measures were defined for nonindigenous species (D2), commercial fish and shellfish (D3) and contaminants in seafood (D9), leaving pressures on these descriptors inadequately covered.

Slovenia has not yet ratified the Protocol for the Protection of the Mediterranean Sea against Pollution Resulting from the Exploration and Exploitation of the Continental Shelf and the Seabed and its Subsoil (Offshore Protocol to the Barcelona Convention).

(⁶⁹) In accordance with Article 17 of Directive 2008/56/EC.

2025 priority action

 Report updates on the assessment of the state of Slovenia's marine waters, its targets and its determinations of GES (⁶⁹), which are expected to include 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.

Prevention and management of invasive alien species

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 (⁷⁰).

The third update of the Union list (⁷¹) entered into force on 2 August 2022. The fourth update is in preparation.

The IAS Regulation (⁷²) 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 (⁷³). More recent studies have put this cost at USD 28 billion per year in the EU,

update the list of invasive alien species of Union concern (OJ L 186, 13.7.2022, p. 10), <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32022R1203</u>.

 ^{(&}lt;sup>70</sup>) 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 (<u>https://eurlex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02016R1141-20220802&from=EN</u>).

Commission Implementing Regulation (EU) 2022/1203 of 12 July
 2022 amending Implementing Regulation (EU) 2016/1141 to

^{(&}lt;sup>72</sup>) 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).

^{(&}lt;sup>73</sup>) 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.

increasing to USD 148.2 billion by 2040 (74), and at USD 423 billion annually at the global level (75).

The total number of IAS of Union concern in the country is 21. This includes 15 species recorded in the previous EIR (2021), 4 species that were present previously and added to the list later under Commission Implementing Regulation (EU) 2022/1203 and 2 newly detected species.

Slovenia has not yet ratified the International Convention for the Control and Management of Ships' Ballast Water and Sediments.

Figure 15: Number of invasive alien species of EU concern, based on available georeferenced information for Slovenia, 2024



As required in the 2022 priority action, Slovenia has taken appropriate measures to establish and implement action plans to address the unintentional introduction and spread of invasive aliens species in its territory and marine waters, in line with Article 13 of the IAS Regulation.

(77) European Commission: Joint Research Centre and EEA, EU Ecosystem Assessment – Summary for policymakers,

2025 priority actions

- Step up implementation of the IAS Regulation, including with regard to enforcement and the capacity of inspection authorities.
- Ratify the International Convention for the Control and Management of Ships' Ballast Water and Sediments of 2004 (BWM Convention).

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 (76) 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 condition in the EU (77).

The amended Regulation (EU) No 691/2011 on European environmental economic accounts (⁷⁸) 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.

An increasing number of platforms, networks and communities of practice involve businesses in protecting biodiversity, including the EU Business & Biodiversity Platform (⁷⁹). These platforms and communities are key tools for promoting and facilitating natural capital

Publications Office of the European Union, Luxembourg, 2021, <u>https://op.europa.eu/en/publication-detail/-</u> /publication/81ff1498-b91d-11eb-8aca-01aa75ed71a1/language-en.

- (⁷⁸) 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, <u>https://eurlex.europa.eu/legal-content/EN/TXT/?uri=COM:2022:329:FIN.</u>
- (⁷⁹) The EU Business & Biodiversity Platform (<u>https://greenbusiness.ec.europa.eu/business-and-biodiversity en</u>) aims to promote the business case for biodiversity to businesses and financial institutions through workshops, seminars, reports and a cross-media communication strategy.

^{(&}lt;sup>74</sup>) 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.

⁽⁷⁵⁾ IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services), Summary for Policymakers – Invasive alien species assessment, Bonn, 2023, https://www.ipbes.net/document-library-catalogue/summarypolicymakers-invasive-alien-species-assessment.

^{(&}lt;sup>76</sup>) Decision 15/4 adopted by the Conference of the Parties to the Convention on Biological Diversity: Kunming–Montreal global biodiversity framework (<u>https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf</u>).

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, Slovenia received a priority action to continue to support the mapping and assessment of ecosystems and their services, and to support the development of national business and biodiversity platforms.

There is still no Slovenian business and biodiversity

network member of the EU Business & Biodiversity Platform. Slovenia has signed, but not yet ratified, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity.

2025 priority actions

 Ratify the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity.

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 (⁸⁰). These set health-based EU air quality standards (⁸¹) and stipulate Member States' national emission reduction commitments (⁸²) for several air pollutants.

Air quality in Slovenia is generally good, with some exceptions.

The latest available annual estimates (for 2022) by the EEA (⁸³) for Slovenia attribute 1 300 deaths each year (or 13 300 years of life lost (YLL)) to fine particulate matter (PM_{2.5}) (⁸⁴); 140 deaths each year (or 1 400 YLL) to nitrogen dioxide (NO₂) (⁸⁵); and 340 deaths each year (or 3 600 YLL) to ozone (⁸⁶).

The emissions of several air pollutants have decreased significantly in Slovenia 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) (⁸⁷) in 2024, Slovenia has met its emission reduction commitments for 2020–2029 for the air pollutants nitrogen oxides (NO_x),

(**) European Commission, 'Air', European Commission website, <u>https://environment.ec.europa.eu/topics/air_en</u>.

(⁸¹) European Commission, 'EU air quality standards', European Commission website, <u>https://environment.ec.europa.eu/topics/air/air-quality/eu-airquality-standards en</u>.

- (82) European Commission, 'Reducing emissions of air pollutants', European Commission website, <u>https://environment.ec.europa.eu/topics/air/reducing-</u> emissions-air-pollutants en.
- (83) 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-tohuman-health-from-air-pollution-2024.
- (⁸⁴) Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM₁₀ refers to particles with a diameter of 10 μm or less. PM_{2.5}

non-methane volatile organic compounds (NMVOC), sulphur dioxide (SO₂), ammonia (NH₃) and PM_{2.5}. According to the latest projections submitted under Article 10(2) of the NECD, Slovenia is projected to meet its emission reduction commitments for 2030 onwards for NO_x, NMVOC, SO₂ and NH₃, but not for PM_{2.5}.

Nevertheless, for NO_{x} and $PM_{2.5}$ in 2020–2022 decreasing trends slowed down or stopped in the road transport sector.

Slovenia submitted its updated national air pollution control programme (NAPCP) to the Commission on 27 May 2024.

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



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

refers to particles with a diameter of 2.5 μ m or less. PM is emitted from many human sources, including combustion.

- (85) Nitrogen dioxide (NO₂) 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.
- (⁸⁶) 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.
- (⁸⁷) 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), <u>https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L .2016.344.01.0001.01.ENG</u>.



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

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

In 2023, no exceedances above the limit values established by the Ambient Air Quality Directive (AAQD) (⁸⁸) were registered in Slovenia. However, in two air quality zones, the target values for ozone concentrations have not been met (⁸⁹).

Persistent breaches of air quality requirements, which have severe negative effects on health and environment, are being followed up by the European Commission through infringement procedures covering all Member States concerned; this includes a procedure for Slovenia for exceedances of PM_{10} limit values. The aim is that appropriate measures are put in place to bring all zones into compliance. In the 2022 EIR, Slovenia received two priority actions. The first priority action was to further reduce emissions in the context of the NAPCP. Slovenia has made substantial progress on this, as the latest reported data show that the 2020–2029 emission reduction commitments are 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, Slovenia has made substantial progress in this regard. Full compliance has been ensured for all limit values and target values, with the exception of those for ozone. Since 2019, downward emission trends have been reported for all main pollutants.

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;

(iv) clean up contaminated sites.

The cornerstone of the policy is the Industrial Emissions Directive (IED), which was revised in 2024 (⁹⁰). 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 (⁹¹).

In Slovenia, around 270 industrial installations were required to have a permit based on the IED. The industrial sectors in Slovenia with the most IED installations in 2022 were (i) metals production (24 %), (ii) waste management

^{(&}lt;sup>88</sup>) 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), <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0050.</u>

^{(&}lt;sup>89</sup>) EEA, Eionet Central Data Repository, https://cdr.eionet.europa.eu/.

^{(&}lt;sup>90</sup>) 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. Informal consolidated text, <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02010L0075-20240804&gid=1725983863299</u>.

^{(&}lt;sup>91</sup>) EEA, European Industrial Emissions Portal, <u>https://industry.eea.europa.eu/</u>, 2022 being the baseline year for all reports.

(18 %), (iii) chemicals production (14 %) and (iv) intensive rearing of poultry and pigs (14 %).

Figure 18 shows the damage to health and 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 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 Slovenia has the 20th highest damage in the EU, it comes 14th for emissions intensity, below the EU average of EUR 27.5/EUR 1 000 GVA. The main industrial contributors to emissions to air (⁹²) are the energy sector, the mineral industry for NO_x emissions, waste management and the chemical industry for dust emissions, and the energy sector, metals sector and mineral sector for SO₂ and heavy metals.

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, <u>https://industry.eea.europa.eu/analyse/industrial-emissions-indicator</u>.

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

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

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

Concerning Slovenia in particular, Figure 20 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). Slovenia has the 20th highest emissions of heavy metals to water and is in 19th position for emissions intensity (below the EU average intensity of 0.864 kg/EUR 1 billion GVA).

Figure 20: Industrial releases and intensity of heavy metals to water (2022)



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

As shown in Figure 21, the main industrial contributors to emissions to water in Slovenia are the chemical sector for heavy metals, nitrogen and total organic carbon, the pulp and paper industry for total organic carbon and the metal production and processing sector for polycyclic aromatic hydrocarbons.

https://www.eea.europa.eu/en/topics/in-depth/air-pollution/air-pollutant-emissions-data-viewer-1990-2022.

^{(&}lt;sup>92</sup>) European Environment Agency, LRTAP, Air pollutant emissions data viewer (Gothenburg Protocol, LRTAP Convention) 1990-2022,

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



NB: TOC, total organic carbon; COD, chemical oxygen demand

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.

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 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 (⁹³) ensures effective collaboration between stakeholders and enables better implementation of the IED.

Since the last EIR, the Commission has adopted BAT conclusions on (i) waste incineration, (ii) the food, drink and milk industries and (iii) surface treatment using organic solvents, including the preservation of wood and wood products with chemicals.

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.

2025 priority actions

- Reduce industrial air pollution damage and intensity.
- 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 to 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 (94)).

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 (⁹⁵) and the report by Slovenia on the implementation of the Seveso III Directive for 2019–2022 (⁹⁶).

In Slovenia, in 2024, of the 60 Seveso establishments, 26 were categorised as lower-tier establishments and 30 as upper-tier establishments (UTEs), based on the quantity of hazardous substances likely to be present in them. UTEs are subject to more stringent requirements. The change in the number of Seveso establishments is presented in Figure 22.

^{(&}lt;sup>93</sup>) European Bureau for Research on Industrial Transformation and Emissions, 'BAT reference documents', European Commission website, https://eippcb.jrc.ec.europa.eu/reference/.

^{(&}lt;sup>94</sup>) 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.

^{(&}lt;sup>95</sup>) <u>https://espirs.jrc.ec.europa.eu/en/espirs/content</u>; data extracted in September 2024.

^{(&}lt;sup>96</sup>) As provided for by Article 21(2) of the Seveso III Directive.

Figure 22: Number of Seveso establishments in Slovenia, 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/languageen/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/publicationdetail/-/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 occur. According to Slovenia, in 2022, an EEP was required for all 30 UTEs. At the same date, all of them had been established and tested over the last three years. The summary of EEPs in Slovenia is shown in Figure 23.



Figure 23: Situation regarding EEPs in Slovenia, 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, <u>https://op.europa.eu/en/publication-detail/-</u>

/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, <u>https://op.europa.eu/en/publication-detail/-/publication/9bd73087-e9b8-11ef-b5e9-</u>01aa75ed71a1/language-en.

The following types of information are permanently available for all UTEs in Slovenia: (i) 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; (ii) information about appropriate behaviour in the event of a major accident; and (iii) the date of the last site visit.

The shares of UTEs 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



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, https://op.europa.eu/en/publication-detail/-Luxembourg. 2022. /publication/94d57d74-735b-11ec-9136-01aa75ed71a1/languageen/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/publicationdetail/-/publication/9bd73087-e9b8-11ef-b5e9-01aa75ed71a1/language-en.

In 2022, Slovenia received a priority action to strengthen control and enforcement to ensure compliance with the Seveso III Directive provisions, especially those on information to the public. Data reported on the implementation of the directive for 2019–2022 show a clear improvement in the numbers of EEPs established for UTE and tested over the previous three years in Slovenia.

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).

The biggest challenge for Slovenia is likely to be the phaseout of dental amalgam. Slovenia has made use of the derogation under Article 10(2a) of the Mercury Regulation, so the deadline for the phase-out is 30 June 2026. It will be important to quicky put in place the measures laid down in the notification on the derogation so as to ensure a socially and economically sound phaseout, including amendments to health insurance regulations, amendments to the financial plan of the Health Insurance Institute of Slovenia to ensure adequate financial and staffing conditions, and raising awareness among dentists and patients about the changes to their rights.

Slovenia is gradually implementing the restriction to the use of amalgam in accordance with its national plan on measures for phasing out dental amalgam use in Slovenia (⁹⁷).

Slovenia 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 (⁹⁸) 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 (⁹⁹).

In Slovenia, environmental noise is estimated to cause at least around 70 cases of ischaemic heart disease annually (¹⁰⁰) and some 9 200 people to suffer from disturbed sleep (¹⁰¹).

Based on the latest set of information analysed, Slovenia has not completed its noise mapping of agglomerations, roads and railways.

Since Slovenia has failed to report to the Commission all relevant information on the strategic noise maps, including noise exposure of the population, the European Commission has decided to open an infringement procedure against Slovenia.

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

^{(&}lt;sup>97</sup>) Ministry of Health, 'Nacionalni načrt o ukrepih za opustitev uporabe amalgama v zobozdravstvu' [National plan on measures for phasing out dental amalgam use], 170-1/2021-2711-32, 2024, <u>https://www.gov.si/assets/ministrstva/MZ/DOKUMENTI/razno/O</u> <u>rganizacija-zdravstvenega-varstva/Izvajalci-zdravstvene-</u> <u>dejavnosti/Nacionalni-nacrt-o-ukrepih-za-postopno-opustitev-</u> <u>amalgama.pdf</u>.

^{(&}lt;sup>98</sup>) 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), <u>https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32002L0049</u>.

^{(&}lt;sup>99</sup>) WHO, Environmental Noise Guidelines for the European Region, Copenhagen, 2018, <u>https://www.who.int/europe/publications/i/item/978928905356</u> <u>3</u>.

⁽ $^{\rm 100}\!)$ $\,$ 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 Report 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-atnireports/eionet_rep_etcacm_2018_10_healthimplicationsnoise. (101) More information on the adverse health effects of noise pollution

is available at: https://www.eea.europa.eu/themes/human/noise/noise-2

recent reporting cycle was 18 January 2025; these plans have not been assessed yet.

2025 priority actions

- Complete noise mapping.
- 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 will ensure that EU citizens and the environment 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 Water Framework Directive is the cornerstone of EU water policy. The Water Framework Directive and other water-related directives form the basis of sustainable and integrated 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 Water Framework Directive 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 2024(¹⁰²).

Slovenia failed to comply with its legal obligation and had not reported the third RBMPs in time, by 22 March 2022. The Commission opened an infringement proceeding, which has been closed, as Slovenia provided the missing reports at the end of November 2023.

Nevertheless, because of the late reporting, the Commission has not been able to include Slovenia in its report on the assessment of the third RBMPs to the European Parliament and to the Council. Consequently, it has not been possible to update the 2022 EIR on that basis. Reference is made to the 2022 EIR (¹⁰³) for an overview of the main issues.

In July 2024 the Commission initiated an infringement procedure against Slovenia for violating Article 11 of the Water Framework Directive because it has not introduced periodical reviews of water permits and concessions. It is necessary that Slovenia takes measures to comply with the requirements of the directive.

2025 priority action

• Ensure periodic reviews of permits for discharges, abstractions and other water uses, including hydropower pressures.

Floods Directive

Every six years, following the same reporting cycle as the RBMPs, all Member States also report their flood risk management plans (FRMPs), based on the flood hazard and risks 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 4^{th} February 2025.

There are two units of management in Slovenia, which are the same as the Water Framework Directive's river basin districts.

The second Slovenian (national) FRMP improved on the first insofar as it provides elements that can be used as baselines for the plan's measures. The second FRMP also describes how climate projections were considered, and refers to Slovenia's policy framework for adaptation to climate change.

2025 priority actions

• FRMPs should provide details on how the FHRMs were used in the choice of measures and how to consider pluvial flooding.

^{(102) &}lt;u>https://webgate.ec.europa.eu/circabc-ewpp/ui/group/c04f478bd4dc-44f9-a211-087c01165b2c/library/faada4be-9fc3-4a48b972-f71e356019d5?p=1&n=10&sort=modified_DESC.</u>

⁽¹⁰³⁾ European Commission, 'Environmental implementation review', <u>https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review_en.</u>

- Better explain the choice and implementation of flood prevention and protection measures (prioritisation, monitoring, costs of measures).
- Improve public consultation and stakeholder involvement.

Drinking Water Directive

The objectives of the directive are to protect human health by ensuring the quality intended for human consumption and to improve access to drinking water. 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 (¹⁰⁴), (ii) a methodology for measuring microplastics in drinking water (¹⁰⁵) and (iii) an EU system for testing and approving materials that will be allowed to be in contact with drinking water (¹⁰⁶). 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 Slovenia does not give rise to concern (¹⁰⁷).

From January 2026, the European guality standards for PFAS in drinking water will apply, ensuring harmonised Member States' reporting of PFAS 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.

In 2023, out of the 47 Slovenian bathing waters, 37 (78.7 %) were of excellent quality, 17 % were of good quality and 2.1 % of sufficient quality. No bathing waters were found to be of poor quality.

Figure 25: Bathing water quality per Member State, Albania and Switzerland (%), 2023



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

Nitrates Directive

The Nitrates Directive (¹⁰⁸) 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(¹⁰⁹), dating back to 2021, 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. Cleaning of waters by national authorities or farmers, where it has been undertaken, has had a positive impact on the drinking water supply and on biodiversity. It has also benefited the sectors - such as

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-actsdrinking-water-directive en).

https://environment.ec.europa.eu/topics/water/nitrates_en.

(109) Nitrates Directive Implementation Report (https://eurlex.europa.eu/legalcontent/en/TXT/?uri=CELEX%3A52018DC0257).

⁽¹⁰⁴⁾ https://environment.ec.europa.eu/publications/implementingdecision-drinking-water-directive-watch-list en.

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.

 $^(^{106})$ 2024/365. OJ L. 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,

⁽¹⁰⁷⁾ In summary, the compliance for all parameter groups in Slovenia was at least 99.40 % in 2017, 99.06 % in 2018 and 99.13 % in 2019. (108)

fisheries and tourism – that depend on biodiversity and on a good supply of drinking water. 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.

The analysis of Slovenia'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.

Since 2017 Slovenia has received a priority action on tackling nutrient pollution, especially from agriculture, through the implementation of the Nitrates Directive. Since the report on the implementation of the Nitrates Directive covering 2020–2023 will be available only later in 2025, the 2022 EIR priority action cannot be assessed.

2025 priority actions

 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 wastewater. 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).

In Slovenia, 91 agglomerations complied with the requirements of the Directive in 2020. Another 32 agglomerations, generating 679 139 population equivalent of urban wastewater, did not comply with the requirements of the directive.

Figure 26: Proportion of urban waste water that fully complies with the UWWTD (%), 2020



NB: No data available for Greece.

Source: European Commission, 12th *technical assessment of the UWWTD Implementation,* 2024(¹¹⁰).

In 2020, the Commission decided to refer Slovenia to the Court of Justice because it had not applied the UWWTD properly. In November 2023, the Court of Justice established that Slovenia is in breach of the UWWTD for the agglomeration of Ljubljana because of failure to treat all the collected wastewater. It is essential that Slovenia takes the necessary measures to fully comply with the requirements of the directive.

This is all the more important as the directive has been revised⁽¹¹¹⁾. The revised directive builds on the current *acquis,* strengthens existing treatment standards and establishes an additional treatment of micropollutants in urban waste water. Other new requirements relate to moving towards the energy neutrality of the sector, establishing an extended producer responsibility system to ensure sustainable financing of micropollutant treatment by the most polluting industries and ensuring access to sanitation, especially for vulnerable and marginalised groups. Slovenia has until 31 July 2027 to transpose the new directive into its national legal system.

Since 2019 Slovenia has received priority actions concerning the necessity to implement the UWWTD, but despite some progress made, compliance has not been achieved yet.

2025 priority actions

• Take the necessary measures to ensure full implementation of the current UWWTD, taking into account the new requirements of the recast directive.

(¹¹⁰) <u>https://op.europa.eu/en/publication-detail/-</u> /publication/4c97f846-44b2-11ef-865a-01aa75ed71a1/languageen

^{(&}lt;sup>111</sup>) Directive (EU) 2024/3019 of the European Parliament and of the Council of 27 November 2024 concerning urban wastewater treatment (recast)

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 (¹¹²), 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 (¹¹³) 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 (114) on the implementation and enforcement of these regulations (¹¹⁵). 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

(112) 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://eurlex.europa.eu/legalcontent/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.

(113) 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, https://eur-lex.europa.eu/legal-30/12/2006. p. 1), 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://eurlex.europa.eu/legal-

content/EN/TXT/?uri=CELEX%3A02008R1272-20221217.

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 (¹¹⁶) 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 (¹¹⁷).

In 2023, new hazard classes were added, and the revision of the CLP Regulation was tabled (published in November 2024) (¹¹⁸). 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 (¹¹⁹). The Commission is working on the delegated acts to include these substances in Annex I to the Persistent Organic Pollutants Regulation by 2025 at the latest.

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

- (¹¹⁵) In line with Article 117(1) of the REACH Regulation and Article 46(2) of the CLP Regulation.
- (¹¹⁶) 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, <u>https://op.europa.eu/en/publication-detail/-</u> /publication/e5c3e461-0f85-11ec-9151-01aa75ed71a1/.
- (¹¹⁷) These are substances in tattoo inks and permanent make-up, N,Ndimethylformamide, formaldehyde (and formaldehyde releasers), lead in PVC (polyvinyl chloride), siloxanes (D4, D5, D6) and, finally, microplastics.
- (¹¹⁸) 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 (<u>Regulation - EU -2024/2865 - EN - EUR-Lex</u>).
- (¹¹⁹) 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.

^{(&}lt;sup>114</sup>) 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, <u>https://circabc.europa.eu/ui/group/8ee3c69a-bccb-4f22-89ca-277e35de7c63/library/a4abce8c-8425-455f-b7e6-0ead917bde6b/details.</u>

absence of new country-specific data on enforcement since 2022.

In Slovenia, only four full-time equivalent workers are allocated to the enforcement of the REACH and CLP Regulations, with the aim of increasing the number to five in the near future.

For REACH and CLP, the levels of compliance observed were similar in 2021, 2022 and 2023. Slovenia is devoting significant resources to training and lectures on implementing the REACH and CLP Regulations. Over those three years, the compliance level observed in product checks varied between 65 % and 82.5 % for CLP.

In 2020, Slovenia participated in an EU-coordinated enforcement project on products sold online, called REACH-EN-FORCE (REF)-8 (¹²⁰). The report was adopted in November 2021, so it could not be taken into account in the previous EIR. Since then, Slovenia has participated in all REF projects: on authorisation provisions, integrated chemical control of products and safety data sheets.

Figure 27: 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 identifying 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 28: Number of REF-8 checks performed per 100 000 inhabitants (EU average = 1.24)

Sweden	3,4	9			
Finland	1,53				
Slovakia	1,88				
Slovenia	1,08				
Romania	0,36				
Portugal	0,20				
Poland	0 ,38				
Austria	0,24				
Netherlands	0,91				
Malta	0,00				
Hungary	1,96				
Luxembourg					21,28
Lithuania		7,07			
Latvia	2,67				
Cyprus	0,00				
Italy	0,19				
Croatia	1, 06				
France	0,13				
Spain	0, 56				
Greece	1,22				
Ireland	2,30				
Estonia	1,82				
Germany	3,34	l .			
Denmark	1,26				
Czechia	1,51				
Bulgaria	0,16				
Belgium	1,30				
	D,00 5	,00 1	0,00	15,00 2	10,00

Slovenian participation in the coordinated enforcement project (REF-8) was below the EU average, which is rather low because of the lack of involvement of certain large Member States.

From this project and others conducted with the help of the European Chemicals Agency in the past years, online sales have been proved to correspond consistently to higher non-compliance rates in checks performed across the EU, in particular when related to imported products.

In 2022, Slovenia received a priority action related to upgrading administrative capacities in implementation and enforcement to move towards a policy of zero tolerance of non-compliance. In the absence of formal reporting since 2022, no progress has been shown and this priority action remains valid in 2025, partly because of the experience with the REF-8 project.

2025 priority action

- Upgrade the administrative capacities in implementation and enforcement to move towards a policy of zero tolerance of 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 checks and checks of products sold online with regard to compliance with chemicals legislation.

https://echa.europa.eu/documents/10162/17088/project_report _ref-8_en.pdf/ccf2c453-da0e-c185-908e-3a0343b25802?t=1638885422475, p. 20.

⁽¹²⁰⁾ European Chemicals Agency, REF-8 project report on enforcement of CLP, REACH and BPR duties related to substances, mixtures and articles sold online, Helsinki, 2021,

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 fastestwarming 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 netzero 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 Slovenia increased by 7 %, making it one of the countries with a net increase.

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 almost fully adopted,

(¹²¹) EU net domestic emissions, including the land use, land-use change and forestry (LULUCF) sector and excluding international aviation. 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). Slovenia submitted its updated plan in January 2025 after the deadline set by the Regulation on the Governance of the Energy Union and Climate Action (124). The European Commission assessed the plan and the extent to which Slovenia has followed the recommendations for the draft version. The findings from the assessment are:

- Emissions under the Effort Sharing Regulation will decrease by 29% in 2030 compared to 2005, and Slovenia will meet its target of 27%.
- Slovenia is in line with its LULUCF target.
- Slovenia has a gap to its target for the share of renewable energy.
- Slovenia is in line with its final energy consumption target.

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

Figure 29: 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

(¹²⁴) Article 14 of regulation 2018/1999 on the Governance of the Energy Union and Climate Action

^{(&}lt;sup>122</sup>) A full overview of the Fit for 55 package is available at <u>https://commission.europa.eu/strategy-and-policy/priorities-</u>2019-2024/european-green-deal/delivering-european-greendeal/fit-55-delivering-proposals en.

^{(&}lt;sup>123</sup>) More information about NECP is on the dedicated website <u>https://energy.ec.europa.eu/topics/energy-strategy/national-energy-and-climate-plans-necps_en</u>.

total GHG emissions from electricity and heat generation, the manufacturing industry, aviation within Europe (¹²⁵) and, from 2024, maritime transport also.

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 tonne 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 48 % from 2005 to 2023.

In 2023, 70% of GHGs emitted by Slovenia's ETS installations came from power generation, significantly more than the EU average (57%). Of the total emissions from all industry sectors, cement and lime production emitted 53%, 30% came from other industries and 18% came from the metals industry. Between 2019 and 2023, the power sector registered a higher emissions reduction (28%) than the industry sectors (23%). Between 2013 and 2023, GHG emissions declined by 44% in power generation and by 18% in industrial manufacturing, leading to a total GHG reduction of 38% in this period.

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 (¹²⁶). Member States should have notified full transposition of the provisions of the revised EU ETS Directive related to the new ETS2 into national law by 30 June 2024. Slovenia did not communicate full transposition into national law by this deadline (¹²⁷). The Commission therefore started an infringement procedure against Slovenia on 25 July 2024, for failing to fully transpose the provisions into national law.

Slovenia has since partially notified transposition of the relevant provisions of the ETS 2 Directive to the Commission. The monitoring and reporting requirements and the obligation to hold a permit to carry out activities under ETS2 will commence on 1 January 2025.

On 25 January 2024 the Commission started an infringement case against Slovenia for its failure to fully transpose previous revisions of the ETS directive (¹²⁸) into national law. Slovenia 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 take the infringement case further.

Effort sharing

The Effort Sharing Regulation (ESR) (129) covers GHG emissions from domestic transport (excluding CO₂ 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 with 2005 levels. This overall target for the EU translates to binding national emission reduction targets for each Member State. Slovenia's target is – 27 %.

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 Slovenia is on track to achieve its 2030 ESR target. Projected emission reduction is 1.6 percentage points above the 2030 target.

The largest contributor is the domestic transport sector, which accounted for 54 % of all effort sharing emissions in 2022. And the share is growing even though net emissions decreased in 2021. Continued momentum is crucial for the take-off of zero-emission mobility in Slovenia.

Around 1 % of the car fleet were battery electric vehicles in 2023 (the EU average is 1.2 %), and Slovenia has about 2 000 publicly accessible charging points, or one for every six e-vehicles (above the EU average of 1:10). Rail plays a significant role in the transport of freight, accounting for 34 % of freight transported (the remainder being transported by road). However, only 50 % of the rail network is electrified (EU average: 56 %). For passenger transport, 85 % (¹³⁰) of distances travelled are by car.

Emissions from buildings decreased by 58 % from 2005 but Slovenia still needs to continue working towards reaching its long-term renovation strategy target to reduce buildings' energy consumption and to increase the share of renewable energy in heating and cooling.

In contrast, emissions from agriculture decreased only by 4 % from 2005.

- (¹²⁸) <u>Directive 2023/959 EN EUR-Lex</u> and <u>Directive 2023/958 EN</u> <u>- EUR-Lex</u>.
- (¹²⁹) Regulation (EU) 2018/842 (<u>https://eur-lex.europa.eu/eli/reg/2018/842</u>).

^{(&}lt;sup>125</sup>) Flights between the Member States including departing flights to Norway, Iceland, Switzerland and the United Kingdom.

^{(&}lt;sup>126</sup>) Directive (EU) 2023/959 (<u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2023.130.01.0134.01.ENG</u>).

^{(&}lt;sup>127</sup>) Slovenia notified a partial transposition.

⁽¹³⁰⁾ Statistical Office, 'Dnevna mobilnost potnikov, 2021', Statistical Office website, <u>https://www.stat.si/StatWeb/News/Index/10324</u>.



Figure 30: Effort-sharing emissions by sector (%), 2022

Land use, land-use change and forestry

The Land use, land-use change and forestry (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.

In Slovenia, LULUCF net removals decreased from 0.64 Mt CO_2 eq to 0.17 Mt CO_2 eq from 2019 to 2022. The country's forests are responsible for a major share of these removals.

Slovenia's target in 2030 is to enhance land removals by additional -0.2 Mt of CO₂ eq compared with the yearly average of 2016–2018. The latest available projections show a surplus over the target of -2.6 Mt of CO₂ eq in 2030. Therefore, Slovenia is on track to meet its 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.

Two out of the three regions of Slovenia are identified as hotspots of climate risks most affected by climate

change – Southern Europe and low-lying coastal regions (¹³¹).

The country is vulnerable to climate-change-related events such as heavy flooding, windstorms, heatwaves and wildfires. Agriculture and forestry have embraced adaptation strategies, but implementation has been slow and uneven. Furthermore, Slovenia has not yet identified further vulnerabilities beyond these sectors. In 1980-2020, only 6 % of reported losses caused by climaterelated events were insured. Flooding is the highest risk, as evidenced by the floods of summer 2023, but its potential economic impacts can be mitigated by good insurance coverage. Nature-based solutions are key to mitigating the impact of floods. Integrating adaptation, such as nature-based solutions, into sectoral policies, including for flood protection, is necessary, as are setting up a monitoring, reporting and evaluation system and better coordination between sectors of government.

Slovenia adopted its national adaptation strategy in 2016 but has never updated it. There are no national or regional adaptation plans.

The European Commission identified four priority actions in the 2022 edition of the review $(^{132})$.

There is a progress in energy efficiency of buildings, but overall efficiency gains have slowed down, leaving significant room for improvement, especially in the transport sector, which remains an issue for Slovenia. Car fleet electrification is on track but more has to be done to increase the share of public transportation and electrify the rail network.

The share of renewable energy remains above the EU average but the pace is slowing down and there are still gaps (insignificant share of wind energy, low share of heat pumps).

Slovenia have implemented a Law on renewable energy sources and a Decree on renewable energy sources in transport, in line with EU Directives 2009/28/EC and (EU) 2015/1315, so they include the sustainability criteria under the Renewable Energy Directive (2009/28/EC).

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 are set out in the assessment

Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Environmental implementation review 2022: Turning the tide through environmental compliance, SWD/2022/273 final of 8 September 2022, <u>https://eur-lex.europa.eu/legal-</u>

^{(&}lt;sup>131</sup>) EEA, European Climate Risk Assessment, EEA Report 01/2024, Publications Office of the European Union, Luxembourg, 2024, <u>https://climate-adapt.eea.europa.eu/en/eu-adaptation-policy/key-eu-actions/european-climate-risk-assessment.</u>

⁽¹³²⁾ Commission Staff Working Document – Environmental implementation review 2022 country report – Slovenia accompanying the document Communication from the
of the final National Energy and Climate plan (NECP)(¹³³).

^{(&}lt;sup>133</sup>) European Commission, National energy and climate plans https://commission.europa.eu/energy-climate-change-

Part II: Enabling framework: implementation tools

5. Financing

The EU budget supports climate investment in Slovenia with significant amounts in 2021–2027, with revenues from the EU ETS also feeding into the national budget. During 2020–2022, Slovenia's revenues from auctioning reached EUR 366 million in total, with all of it spent on climate and energy.

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 1.8 billion per year in Slovenia.

These four environmental areas currently receive total funding of around EUR 1.2 billion per year; thus, there is a gap of EUR 0.6 billion per year.

Of the annual environmental investment gap, EUR 0.2 billion concerns biodiversity and ecosystems, EUR 0.06 billion pollution prevention and control, EUR 0.3 billion water and around EUR 0.1 billion the circular economy.

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 (¹³⁴).

In Slovenia, the EU cohesion policy (considering the EU contribution amount) provides EUR 1.3 billion for

climate action in 2021–2027 (with around 40 % of this via the ERDF), with a further EUR 10.7 million from the European Maritime, Fisheries and Aquaculture Fund (EMFAF) (135).

The RRF contributes to climate finance in Slovenia with EUR 1.3 billion up to 2026, representing 48.9 % of the RRP (136).

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 378 million was assigned to Slovenia in the reference period (¹³⁷).

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 65 million in 2020, EUR 130 million in 2021 and EUR 171 million in 2022 in Slovenia, totalling EUR 366 million in the three-year period. 100 % of the auctioning revenues is used for climate and energy projects. Some projects receive funding later than in the year in which the auctioning revenues were generated (¹³⁸).

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 (¹³⁹).

(https://ec.europa.eu/economy_finance/recovery-andresilience-scoreboard/index.html).

- (¹³⁷) A list of financed projects is provided by the EIB (<u>https://www.eib.org/en/projects/loans/index.htm</u>).
- (138) 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-yourvoice/news/climate-action-progress-report-2023-2023-10-24 en.
- (139) NB: indirect investments (from climate and other policies) in support of the environment are accounted for via the tracking.

⁽¹³⁴⁾ 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, <u>https://commission.europa.eu/document/download/7a0</u> <u>420e1-599e-4246-9131-</u> <u>ccb7d505d6d9 en?filename=DB2025-Statement-of-Estimates 1.pdf.</u>

^{(&}lt;sup>135</sup>) See the Cohesion Open Data Platform (<u>https://cohesiondata.ec.europa.eu/</u>).

⁽¹³⁶⁾ EU Commission datasets and the Recovery and Resilience Scoreboard

Environmental financing and investments

This section describes Slovenia'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 (¹⁴⁰).

The environment overall

Investment needs

The overall environmental investment needs to be sufficient to enable Slovenia 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 is estimated to be EUR 1.8 billion per year (in 2022 prices).

A significant part of the estimated requirement, around EUR 701 million per year, can be attributed to the need to support water and marine. For biodiversity and ecosystems, the annual investment needs are EUR 326 million, for pollution prevention and control EUR 403 million and for the circular economy EUR 357 million (in 2022 prices).

Current investments

To implement the environmental investments needed, the available financing is estimated to currently reach an annual EUR 1.2 billion in Slovenia from EU and national sources combined (in 2022 prices).

Total environmental funding from the multiannual financial framework (MFF) is estimated to reach around EUR 1.3 billion for Slovenia in total, during 2021–2027 (or EUR 184 million per year).

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

Instrument	Allocations
Cohesion policy	817.9 (ª)
ERDF	383.7
Cohesion Fund	382.0
Just Transition Fund	52.2
САР	357.3 (^b)
European Agricultural	128.4
Guarantee Fund	228.9

⁽¹⁴⁰⁾ 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.

European Agricultural	
Fund for Rural	
Development	
EMFAF	8.1
Other MFF sources	106.1 (^c)
RRF (^d) (2021–2026)	860

- (a) European Commission, 2021-2027 cohesion policy (planned) allocations in EU amount excluding national cofinancing, 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-detailedcategorisation/hgyj-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, <u>https://eurlex.europa.eu/eli/reg/2021/2115</u>.

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%20e ach%20programme%202023.pdf). Source: European Commission.

- (c) Space Fund, Horizon Europe, financial instrument for the environment 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.

Slovenia, 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 are open to all Member States. These include the financial instrument for the environment (LIFE) programme (EUR 5.4 billion) (¹⁴¹), Horizon Europe (EUR 95.5 billion) (¹⁴²), the Connecting Europe

- (141) https://cinea.ec.europa.eu/programmes/life_en.
- (142) European Commission, Horizon Europe (https://researchand-innovation.ec.europa.eu/funding/fundingopportunities/funding-programmes-and-opencalls/horizon-europe_en).

Facility (EUR 37.7 billion) (¹⁴³) and funds that can be mobilised through the InvestEU programme (¹⁴⁴).

Slovenia's RRP supports climate objectives through funding of EUR 1.3 billion (48.9 % of total), with an additional EUR 0.11 billion (4 %) for the environment.

The EIB provided around EUR 151.2 million in environment-related financial contributions to Slovenia from 2021 to mid 2024, all of it 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 Slovenia, the total national environmental protection expenditure was EUR 1.3 billion in 2020 and EUR 1.2 billion in 2021, representing 2.7 % and 2.4 % 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 Slovenia, the national environmental protection investment reached EUR 476 million in 2020 and EUR 418 million in 2021, representing around 0.8–1.0 % of GDP.

Split by institutional sector, 33 % of Slovenia's national environmental protection investment (capital expenditure) comes from the general government budget, with 3 % coming from specialist producers (of private-sector environmental protection services, such as waste and water companies) and 63 % 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 (¹⁴⁵).

Slovenia's total financing for environmental investment reaches an estimated EUR 1.2 billion 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 26 %, with around 74 % national financing. The total public financing (EU plus national public) represents 51 % 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 0.6 billion per year in Slovenia, representing around 1.08 % of the national GDP, being higher than the EU-average (0.77 %).

Figure 31: Environmental financing, needs and gaps per Member State (% of GDP)



Source: Directorate-General for Environment analysis.

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

Table 2: Summary of environmental investmentgaps in Slovenia per year, 2021–2027

Environmental objective	Investment gap per year		
	Million EUR (2022 prices)	% of total	% of GDP
Pollution prevention and control	55	8.8	0.09

⁽¹⁴⁴⁾ 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.

⁽¹⁴³⁾ The Connecting Europe Facility (Transport) 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.

^{(&}lt;sup>145</sup>) Eurostat, 'Environmental protection expenditure accounts', env_ac_epea.

Circular economy and waste	108	17.2	0.18
Water management and water industries	260	41.6	0.44
Biodiversity and ecosystems	202	32.4	0.34
Total	624	100.0	1.06

Source: Directorate-General for Environment analysis.

Pollution prevention and control

Investment needs

In pollution prevention and control, Slovenia's investment needs are estimated to reach EUR 403 million per year (including baseline investments) in 2021-2027. Most of this, EUR 352 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 90 million per year, most of which is delivered by the (same) sustainable energy and transport investments that also benefit clean air (146). Protection from radiation costs EUR 26 million a year, and industrial site remediation an estimated EUR 11 million per year. Microplastics pollution and the chemicals strategy require around EUR 6–8 million per year (each) (¹⁴⁷).

Current investments

The current investment levels supporting pollution prevention and control reach an estimated EUR 349 million per year in Slovenia in 2021–2027. Most of the financing concerns clean air (EUR 288 million per year). Protection from environmental noise receives around EUR 86 million per year, with a further EUR 12 million spent on site remediation(¹⁴⁸).

In Slovenia, the EU MFF provides an estimated 17 % of the clean air financing (mostly via cohesion policy), with a further 18 % from the RRF, adding up to 35 % of the total. EIB loans reach 6 % of the total and national sources 59 % .

The gap

To meet its environmental objectives concerning pollution prevention and control (towards zero pollution), Slovenia needs to provide an additional EUR 55 million per year (0.09 % 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 (¹⁴⁹), Slovenia complied with ammonia reduction requirements in 2020 and 2021, and it is not at risk of non-compliance with ammonia concerning the NECD 2030 emission reduction commitments, 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

Slovenia's investment needs in circular economy and waste reach EUR 357 million per year (including baseline investments). Most of this, around EUR 280 million per year, relates to circular economy measures in the mobility, food and built environment systems, with a further EUR 77 million necessary for waste management (municipal and packaging waste), covering waste collection, biowaste treatment, recycling reprocessors, wastesorting facilities, and digitalisation of the waste registry. The amount for waste excludes the

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/0a8 0484e-2409-4749-94c6-3b23bc6bae8f en?filename=Clean%20air%20methodolog y 0.pdf

^{(146) 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).

⁽¹⁴⁷⁾ European Commission, *Third Clean Air Outlook*, Brussels, 2022, <u>https://environment.ec.europa.eu/topics/air/cleanair-outlook_en</u>. See also the impact assessment for the revision of the AAQD, available from the Commission web page on the proposed revision (<u>https://environment.ec.europa.eu/publications/revisioneu-ambient-air-quality-legislation_en</u>).

⁽¹⁴⁸⁾ Through the tracking of EU funds, EIB projects and national expenditure (EPEA accounts, Eurostat). Note that the bulk

⁽¹⁴⁹⁾ European Commission, 'National air pollution control programmes and projections', European Commission website, <u>https://environment.ec.europa.eu/topics/air/reducingemissions-air-pollutants/national-air-pollution-controlprogrammes-and-projections_en.</u>

investments needed for the uptake of circularity and waste prevention across the economy (150).

Current investments

Circular economy investments across the economy reach around EUR 192 million per year in Slovenia in 2021-2027, with a further EUR 57 million provided for waste management that does not constitute circular economy.

Around 1.7% of this combined financing for circularity and waste comes from the EU MFF, with a further 6.7% contribution from the RRF. The share of national sources is overwhelming, reaching 92% of the total financing (¹⁵¹).

The gap

To meet its environmental objectives concerning the circular economy and waste, Slovenia needs to increase circular economy investments by an estimated EUR 88 million per year, with an EUR 20 million additional concerning waste management action, not belonging to circular Combined, economy. this amounts to EUR 108 million per year, representing 0.18 % of Slovenia's GDP.

Of the circular economy gap, EUR 23 million relates to recent initiatives, such as the eco-design for sustainable products, packaging and packaging waste, labelling and digital tools, CRM recycling, and measures proposed under the amendment of the Waste Framework Directive, and EUR 65 million constitutes further investment needed to unlock Slovenia's circular economy potential.

Water protection and management

Investment needs

The annual water investment needs reach an estimated EUR 701 million (in 2022 prices) in Slovenia. This comprises investment needs both for the water industry and for the protection and

management of water. Of the total annual need, EUR 211 million relates to the management of waste water (also including additional costs associated with the revised UWWTD). A further EUR 335 million is necessary for drinking-water-related investments and around EUR 152 million for the protection and management of water (¹⁵²).

Current investments

Water investments in Slovenia are estimated to be around EUR 441 million per year (in 2022 prices) in 2021–2027. Of this, EUR 126 million supports wastewater management, EUR 281 million drinking water and around EUR 33 million the other aspects of the Water Framework Directive (water management and protection).

Of the total financing, 7.4 % is provided by the EU MFF (mostly through cohesion policy), with a further 5.4 % from the RRF, reaching 12.7 % combined. The bulk of financing comes from national sources (87.3%) (153).

The gap

To meet the various environmental targets under the Water Framework Directive and the Floods Directive, Slovenia's water investment gap reaches EUR 260 million per year (0.44 % of GDP), with EUR 85 million linked to wastewater measures. Drinking water measures require an additional EUR 54 million per year and the other aspects of the Water Framework Directive around EUR 120 million per year over the existing levels of financing.

Biodiversity and ecosystems

Investment needs

The investment needs for biodiversity and ecosystems are estimated to be EUR 326 million per year (in 2022 prices) in Slovenia in 2021–2027. This includes the following financing needs:

Slovenia's prioritised action framework (¹⁵⁴)

⁽¹⁵⁰⁾ 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, <u>https://op.europa.eu/en/publication-detail/-</u> /publication/4d5f8355-bcad-11e9-9d01-01aa75ed71a1.

^{(&}lt;sup>151</sup>) 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).

^{(&}lt;sup>152</sup>) See European Commission, 'Estimating investment needs and financing capacities for water-related investment in EU Member States', 28 May 2020, <u>https://commission.europa.eu/news/estimating-</u>

investment-needs-and-financing-capacities-water-relatedinvestment-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, <u>https://www.oecdilibrary.org/environment/financing-water-supply-</u> sanitation-and-flood-protection 6893cdac-en.

^{(&}lt;sup>153</sup>) Water investment levels are estimated through tracking EU funds, EIB projects and national expenditure (EPEA accounts, Eurostat).

^{(&}lt;sup>154</sup>) European Commission, 'Financing Natura 2000 – Prioritised action frameworks', European Commission website, <u>https://environment.ec.europa.eu/topics/nature-andbiodiversity/natura-2000/financing-natura-2000 en.</u>

concerning the Natura 2000 areas: EUR 85.9 million per year, mostly running costs;

- additional BDS costs (¹⁵⁵): EUR 156.5 million per year on top of the framework;
- sustainable soil strategy management (¹⁵⁶) costs: EUR 83.5 million per year.

Current investments

The current level of biodiversity financing is estimated to be EUR 124 million per year (in 2022 prices) in 2021–2027. 71.1 % of this is considered direct financing to biodiversity and ecosystems, with a 100 % coefficient in the tracking schemes.

15.5 % of the total financing is estimated to come from EU cohesion policy, 38.6 % from CAP, 4.7 % from Horizon Europe, around 1.8 % from LIFE and 0.7 % from EMFAF. The EU MFF altogether accounts for 62 % of the financing and the RRF for 10.4 %, adding up to a total of 72.4 % from the EU budget. The rest, 27.6 %, comes from national sources (¹⁵⁷).

Slovenia has dedicated relatively high shares of funds under the RRF (4.4 %) to biodiversity, as well as under CAP (21.5 %) and under its cohesion policy EU contribution amounts (7.4 %, disregarding ESF+) in 2021–2027 – all well above the EU average (see Figure 32).

Figure 32: 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, Slovenia's investment gap is estimated to be around EUR 202 million per year, corresponding to 0.34 % 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 (¹⁵⁸). 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 (¹⁵⁹).

To help Member States to develop national green budgeting and thereby improve policy coherence

biodiversity from the Classification of the Functions of Government accounts.

^{(&}lt;sup>155</sup>) European Commission: Directorate-General for Environment, Biodiversity Financing and Tracking – Final report, Publications Office of the European Union, Luxembourg, 2022, <u>https://op.europa.eu/en/publicationdetail/-/publication/793eb6ec-dbd6-11ec-a534-01aa75ed71a1/language-en</u>.

⁽¹⁵⁶⁾ 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, <u>https://environment.ec.europa.eu/publications/proposaldirective-soil-monitoring-and-resilience_en</u>.

^{(&}lt;sup>157</sup>) Based on biodiversity tracking in the EU budget (<u>https://circabc.europa.eu/ui/group/3f466d71-92a7-49eb-9c63-6cb0fadf29dc/library/8e44293a-d97f-496d-8769-50365780acde</u>), and national expenditure on

^{(&}lt;sup>158</sup>) European Commission, Green Budgeting in the EU. Key Insights from the 2023 European Commission Survey of Green Budgeting Practices, 2023, <u>https://economyfinance.ec.europa.eu/economic-and-fiscalgovernance/national-fiscal-frameworks-eu-memberstates/green-budgetingeu_en#:~:text=European%20Commission%20Green%20B udgeting%20Survey%C2%A0.</u>

^{(&}lt;sup>159</sup>) European Commission, 'European Union green budgeting reference framework', 2022, <u>https://economyfinance.ec.europa.eu/economic-and-fiscalgovernance/green-budgeting-eu_en.</u>

and support the green transition, the Commission facilitated a technical support instrument (TSI) project on green budgeting from 2021 to 2024 (¹⁶⁰). Slovenia participated and introduced a national green budgeting methodology according to which, projects financed through the national budget are evaluated with respect to their impact on the six environmental objectives of the EU taxonomy.

Slovenia has also been selected for the next round of TSI projects on green budgeting, starting in 2025, where the country will expand peer-to-peer learning through civil servants' exchanges.

Beyond green budgeting, to improve policy outcomes, the Commission has also drawn up climate-proofing and sustainability-proofing guidance (¹⁶¹), as tools to assess project eligibility and compliance with environmental legislation and criteria.

Green taxation and tax reform

Total environmental taxes amounted to EUR 1.6 billion in Slovenia in 2022, representing 2.9 % of its GDP (EU average: 2.0 %). Energy taxes formed the largest component of environmental taxes, accounting for 2.4 % of GDP, which is higher than the EU average of 1.6 %. Transport taxes, at 0.4 % of GDP, were around the EU average (0.4 %), while taxes on pollution and resources, at 0.1 %, were slightly above the EU middle value (EU average: 0.08 %). In 2022, environmental taxes in Slovenia accounted for 7.6 % of total revenues from

taxes and social security contributions (above the EU average of 5.0 %) (162).



Figure 33: Environmental taxes per Member State, 2022

The EU Green Deal emphasises the role of welldesigned 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 (¹⁶³), Slovenia applies environmental taxes used to discourage environmentally harmful activities and behaviours in the fields of air, waste, water and mineral extraction.

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(¹⁶⁴).

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,

^{(&}lt;sup>160</sup>) <u>https://reform-support.ec.europa.eu/what-we-</u> do/revenue-administration-and-public-financialmanagement/supporting-implementation-greenbudgeting-practices-eu_en.

⁽¹⁶¹⁾ Commission notice – Technical guidance on the climate proofing of infrastructure in the period 2021–2027 (OJ C 373, 16.09.2021, p. 1), <u>https://op.europa.eu/en/publication-detail/-</u> /publication/23a24b21-16d0-11ec-b4fe-<u>01aa75ed71a1/language-en</u>.

^{(&}lt;sup>162</sup>) Eurostat, 'Environmental taxes accounts', env_eta.

^{(&}lt;sup>163</sup>) European Commission: Directorate-General for Environment, Candidates for Taxing Environmental Bads at National Level, Publications Office of the European Union, Luxembourg, 2024, , <u>https://op.europa.eu/en/publicationdetail/-/publication/35c1bbdf-2931-11ef-9290-01aa75ed71a1/language-en, Annex 1.</u>

⁽¹⁶⁴⁾ Climate Bonds Initiative (<u>www.climatebonds.net</u>). 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.

5.1 % related to land use (with links to nature and ecosystems) and 3.8 % to waste management. By 2023, the combined share of energy, buildings and transport has decreased to 73 %, the share 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 those issued by supranational bodies) 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 development banks and 1.4 % to local governments.

Between 2021 and January 2023, Slovenia issued sustainability bonds for EUR 2.49 billion, with EUR 765 million of the (total) proceeds going into green projects.

Figure 34: 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 environmental action programme objectives and the enabling conditions (¹⁶⁵). FFS are costly for public

 $^{(165)}$ Article 3(h) and 3(v) of the eighth environmental action programme.

(¹⁶⁶) European Commission, 2024 Report on Energy Subsidies in the European Union, COM(2025). https://ec.europa.eu/transparency/documentsregister/detail?ref=COM(2025)17&lang=en. 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 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 (166).

For the majority of the Member States (16), 2022 saw a peak in the amount of overall FFS. A decline was then observed in 2023 (¹⁶⁷). 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 Slovenia, the energy subsidies were stable in 2015–2021, and only showed significant increases in 2022 and 2023, in line with the EU-wide phenomenon. FFS were already very stable all through the examined period, mostly at EUR 0.1 billion per year, except only 2022, when they increased to EUR 0.2 billion.

As a share of GDP, FFS in 2022 ranged from 1.8 % in Croatia to less than 0.1 % in Denmark and Sweden. Slovenia's value reached 0.4 %, below the EU average (0.8 %) (¹⁶⁸).

Figure 35: Energy subsidies by energy carrier (billion EUR), 2015–2023



NB: RES, renewable energy source.

- (¹⁶⁷) 16 Member States: BE, EE, IE, EL, ES, FR, HR, IT, CY, LT, HU, NL, AT, PT, RO and SE.
- (¹⁶⁸) European Commission, 2024 Report on Energy Subsidies in the European Union, COM(2025). https://ec.europa.eu/transparency/documentsregister/detail?ref=COM(2025)17&lang=en

Source: analysis of Directorate-General Energy

In the 2022 EIR, Slovenia received the following priority actions.

- Ensure an increased level of financing for the environment to cover the investment needs across the environmental objectives by closing the investment gaps.
- Scale up the biodiversity support under the new cohesion policy and the common agricultural policy to achieve the ambition set in the interinstitutional agreement on the 2021–2027 MFF on biodiversity.
- Ensure that cohesion policy and EAFRD funding and LIFE programme funding complement each other, especially as regards LIFE integrated

projects and actions certified with a 'Seal of Excellence'.

Slovenia currently has a similar overall environmental investment gap to that at the time of the 2022 EIR (at around 1.1 % of GDP, above the EU average), with most of it related to the water objective and biodiversity.

2025 priority action

 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.

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 (¹⁶⁹). 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 (¹⁷⁰). It includes the right to bring legal challenges ('legal standing') (¹⁷¹).

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.

Slovenia's performance in implementing the Inspire Directive is substantial and has been reviewed based on its 2023 country fiche (¹⁷²) (see Table 3).

Table 3: Slovenia dashboard on the implementation ofthe Inspire Directive, 2016–2023

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

Source: European Commission, 'Slovenia', Inspire Knowledge Base, <u>https://knowledge-base.inspire.ec.europa.eu/slovenia_en</u>.

Slovenia has made progress on the accessibility of spatial data, but more efforts are needed to make spatial data more widely accessible and prioritise the environmental datasets (¹⁷³). Hence, a priority action is proposed in 2025.

- (¹⁶⁹) The Aarhus Convention (<u>https://unece.org/environment-policy/public-participation/aarhus-convention/text</u>), the Access to Environmental Information Directive (Directive 2003/4/EC) (<u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003L0004</u>) and the Inspire Directive (Directive 2007/2/EC) (<u>https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32007L0002</u>) together create a legal foundation for the sharing of environmental information between public authorities and with the public.
 (¹⁷⁰) These guarantees are explained in the European Commission's
- (170) These guarantees are explained in the European Commission's 2017 notice on access to justice in environmental matters (<u>https://eur-lex.europa.eu/legal-</u> <u>content/EN/ALL/?uri=CELEX:52017XC0818(02)</u>) and a related

 2018
 citizen's
 guide

 (https://op.europa.eu/en/publication-detail/

 /publication/2b362f0a-bfe4-11e8-99ee

 01aa75ed71a1/language-en/format-PDF).

- (171) 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.
- (¹⁷²) European Commission, 'Slovenia', INSPIRE knowledge base, <u>https://knowledgebase.inspire.ec.europa.eu/slovenia_en.</u>
- (¹⁷³) European Commission, <u>List of high value spatial data</u> sets.

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 Environmental Impact Assessment (EIA) Directive (¹⁷⁴) and the Strategic Environmental Assessment (SEA) Directive (¹⁷⁵).

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(¹⁷⁶). Slovenia has already taken steps aiming to accelerate permit-issuing procedures taking advantages of the broad flexibilities offered by the EU legal framework, such as the establishment of a single point of support for investors, accelerate short deadlines for issuing permits for renewable energy projects and the removal of regulatory barriers.

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 (¹⁷⁷). 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. The available data for Slovenia show that on average EIA procedures last around 7 months, which is faster than the EU average of 20.6 months (¹⁷⁸). 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 (¹⁷⁹).

Although there is good access to information and guidance on public participation, there is little systematic information on how public views are taken into account. No aggregate data are published, and decisions in individual cases do not indicate how public comments have been taken into account.

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

^{(&}lt;sup>174</sup>) 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), <u>https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32011L0092.</u>

^{(&}lt;sup>175</sup>) 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), <u>https://eur-lex.europa.eu/legalcontent/EN/ALL/?uri=CELEX:32001L0042</u>.

^{(&}lt;sup>176</sup>) Commission Staff Working Document (SWD/2022/0149 final), 18 May 2022, (https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A52022SC0149&qid=1653034229 953).

⁽¹⁷⁷⁾ 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, <u>https://op.europa.eu/en/publication-detail/-</u> /publication/8349a857-2936-11ef-9290-01aa75ed71a1/.

⁽¹⁷⁸⁾ The screening process for solar power plants is generally slower than for other renewable energy technologies and can take up to 22 months. Note also that the EIA study has no data on the time taken to reach a reasoned conclusion or development consent.

⁽¹⁷⁹⁾ 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

The Slovenian legal system does not provide for adequate access to justice in environmental matters as laid out in the Commission notice from 2017 (¹⁸⁰). There is no direct way to obtain an administrative review or challenge a final decision about a plan/programme (nature conservation, water, noise or waste management) before a court.

In July 2024, the Commission started an infringement (¹⁸¹) procedure against Slovenia for failing to fully implement the requirements of the Convention on access to information, public participation in decision-making and access to justice in environmental matters (Aarhus Convention). This is about the ability of the public concerned to request a review of plans and programmes by a national court, particularly for cases concerning water, nature and air quality. Slovenia should fully comply with the requirements of the Aarhus Convention.

In 2022 Slovenia received the priority actions to (i) better inform the public about their right to access to justice, in particular by referring to the Commission e-justice factsheets on access to justice in environmental matters on national judicial and administrative portals (¹⁸²) and (ii) improve access to courts by the public concerned when it comes to challenging administrative or regulatory decisions, in particular as regards plans and programmes. There has been no progress on the first priority action, as currently only the Environmental Defenders website (¹⁸³) offers useful information. On the second priority action there has been some progress.

Nonetheless, Slovenia still does not provide for adequate access to justice beyond implementing directives with sectoral provisions, such as the EIA Directive.

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 (¹⁸⁴).
- Improve access to courts in national environmental cases by the public concerned and eliminate practical barriers, such as length of proceedings and excessive costs in some Member States.

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 (¹⁸⁵) 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 dutyholders to comply by providing information, guidance and other 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.

While detailed statistical tools for tracking environmental crime have not significantly advanced since the 2022 EIR, the State Prosecution Office's annual reports continue to provide aggregated data on various types of criminal cases, including environmental crimes (¹⁸⁶). The State Prosecution Office and the Slovenian Inspectorate for the Environment provide resources and occasional statistical data summaries on their official sites and annual reports.

In November 2023, a regional conference dedicated to strengthening the fight against crime affecting the environment was held, which representatives from Albania, Bosnia and Herzegovina, Bulgaria, Croatia, France, Greece, Kosovo, Montenegro, North Macedonia, Serbia, Slovakia, Slovenia, Poland and Romania attended(¹⁸⁷).

The 2022 EIR recommended that Slovenia (i) improve the availability of online material for duty-holders, such as

(¹⁸⁴) European Commission, <u>List of high value spatial data sets</u>.

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

content/EN/TXT/PDF/?uri=CELEX:52018SC0010).

⁽¹⁸⁰⁾ Commission notice on access to justice in environmental matters, C/2017/2616 of 18 August 2017 (OJ C 275, 18.8.2017, p. 1), <u>https://eur-lex.europa.eu/legal-</u> content/EN/TXT/?uri=oj:JOC 2017 275 R 0001.

^{(&}lt;sup>181</sup>) INFR(2024)2051.

^{(&}lt;sup>182</sup>) European Union, Access to justice in environmental matters', European Union website, <u>https://e-justice.europa.eu/content access to justice in environmental matters-300-en.do.</u>

⁽¹⁸³⁾ The network <u>Environmental defenders - Zagovorniki okolja</u> varstvo okolja, varstvo prostora

^{(186) &}lt;u>https://www.dt-rs.si/letna-porocila</u>.

^{(187) &}lt;u>https://www.selec.org/strengthening-the-fight-against-crimes-that-affect-the-environment-in-southeast-europe/</u>

farmers and land managers, on practical steps to implement legislation that protects nature, and improve the visibility of information on the implementation of the Nitrates Directive and (ii) improve the public availability of information, for example on environmental inspections and on the prosecution of environmental crimes. 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.

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) (2024/1203/EU) (188) 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

- (138) Directive 2024/1203/EU on the protection of the environment through criminal law (<u>https://eur-lex.europa.eu/eli/dir/2024/1203/oj/eng</u>),
- (189) <u>https://www.impel.eu/en</u>.
 (190) LIFE+SATEC project (<u>https://webgate.ec.europa.eu/life/publicWebsite/project/LIFE2</u> <u>0-PRE-ES-000001/fight-against-environmental-crime-at-a-</u> strategic-level-through-the-strengthening-of-envirimenet-
- strategic-level-through-the-strengthening-of-envicrimenetnetwork-of-experts-in-environmental-criminal-investigations).
- (¹⁹¹) <u>https://www.environmentalprosecutors.eu</u>.
- (¹⁹²) <u>https://www.eufje.org/index.php?lang=en</u>.

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 (189), EnviCrimeNet (190), the European Network of Prosecutors for the Environment (191) and the EU Forum of Judges for the Environment (192). The European Union Agency for Law Enforcement 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)(¹⁹³) 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 (¹⁹⁴), which will be finalised in 2025, and which was supported by an external study (¹⁹⁵), containing,

- Environmental Liability Directive, forthcoming 2025.
 (¹⁹⁵) Furonean Commission: Directorate-General for Environment and
- (195) 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, <u>https://op.europa.eu/en/publication-detail/-</u>

^{(&}lt;sup>193</sup>) Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage (https://eurlex.europa.eu/legal-

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 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 31 December 2021, Slovenia reported one occurrence of an imminent threat (water damage case) and four occurrences of environmental damage under the ELD (one water and biodiversity damage case, one land, water and biodiversity damage case, one biodiversity damage case and one water damage case). The report stated that, in 2019 alone, 12 potential ELD occurrences were assessed; eventually it was determined that 8 of them were not ELD occurrences. In the first reporting period, no environmental damage occurrences were reported under the ELD.

Slovenia has not introduced mandatory financial security for ELD liabilities. Environmental insurance policies are not generally available. Moreover, environmental extensions to general liability policies are not generally available and, even when available, they provide cover only for remediating off-site pollution from a sudden and accidental incident on an insured party's site, without providing cover for ELD liabilities unless non-ELD legislation imposes liability for remediating land/soil pollution from a sudden and accidental incident and the

/publication/006d90e5-980a-11ef-a130-01aa75ed71a1/language-en. liability overlaps with liability for remediating land damage under the ELD.

The 2022 EIR in relation to the ELD recommended that Slovenia establishes an online register of ELD cases and other instances of environmental damage, providing information on damages and costs available to the public. Slovenia has made some progress in establishing an online register of ELD cases.

2025 priority action

 Encourage the use of training programmes provided by the Commission (or developed at the national level) covering the ELD and its interaction 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 (¹⁹⁶) 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 (¹⁹⁷) and the TAIEX-EIR PEER 2 PEER tool (¹⁹⁸). 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 TSI had annual calls in 2021, 2022, 2023, 2024 and 2025. The following environment-related projects have been selected in Slovenia:

 Upgrading and improving the RRF implementation system in Slovenia, Office for Recovery and Resilience of Slovenia (2023);

^{(&}lt;sup>196</sup>) See the European Commission web page on Compact (<u>https://reform-support.ec.europa.eu/public-administration-and-governance-coordination/enhancing-european-administrative-space-compact en</u>).

^{(&}lt;sup>197</sup>) See the European Commission web page on the TSI (<u>https://commission.europa.eu/funding-tenders/find-funding/eu-funding-programmes/technical-support-instrument/technical-support-instrument-tsi en</u>).

⁽¹⁹⁸⁾ See the European Commission web page on the TAIEX-EIR PEER 2 PEER tool (<u>https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review/peer-2-peer_en</u>). TAIEX: Technical Assistance and Information Exchange.

- Integration of environmental dimensions in public finances – implementing the 'do no significant harm' (DNSH) principle in public funding programme, Office for Recovery and Resilience of Slovenia (2023);
- Capacity building in the Czech Republic, Saxony (Germany) and Slovenia for wildfire prevention and risk assessment, Ministry of Defence – Administration for Civil Protection and Disaster Relief (2023);
- Review of Slovenian industrial strategy 2021–2030 for green, creative and smart development – Industrial ecosystems, Ministry of Economic Development and Technology (2023).
- Implementing Effective Green Budgeting Practices, Revenue Administration and Public Financial Management, Ministry of Finance (2025).

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 European Commission to present new and upcoming environmental legislation and policy in all Member States (¹⁹⁹).

Workshops involving Slovenia are as follows:

- New aspects in the cross-border cooperation against environmental crime (19–20 November 2024);
- Measures to reduce air pollution in transport and residential energy (11–13 June 2024);
- Circular public procurement and circular public investments (7–8 November 2023);
- Future challenges in air protection in Europe (24 November 2022);
- Climate adaptation and blue infrastructures: Examples across European regions (30 May–1 June 2022);

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.

uses 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); Renewable energy projects: permitting granting processes (13 June 2022). N.B. the first flagship workshop on Zero Pollution for Air, Water and Soil, took place 9 February 2022.

^{(&}lt;sup>199</sup>) 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

Annex 2025 priority actions

Circular economy and waste management

Transitioning to a circular economy

- Develop a unified circular economy strategy focusing on waste prevention and resource efficiency, especially for priority waste streams.
- Adopt measures to increase the circular material use rate.

Waste management

- Invest in waste prevention measures to reduce the total amount of waste generated, which has increased over the last 12 years.
- Increase the collection and recycling rate of waste electronic and electric equipment (WEEE).
- Introduce the deposit and return system(-s) (DRS), as mandated by the new Packaging and Packaging Waste Regulation, to capture more recyclable materials and improve the quality of recyclates.
- 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

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 species

Recovery of species

- Strengthen the integration of biodiversity actions into other policies, e.g. energy, agriculture, fisheries, forestry, urban and infrastructure planning and sustainable tourism, and promote communication between stakeholders.
- Reinforce action for habitats and species in unfavourable conservation status, for example through restoration measures, increased connectivity, better policy coordination and integration, and increased funding.

Recovery of ecosystems

Agricultural ecosystems

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

Marine ecosystems

Report updates on the assessment of the state of Slovenia's marine waters, its targets and its
determinations of GES, which are expected to include 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.

Prevention and management of invasive alien species

- Step up implementation of the IAS Regulation, including with regard to enforcement and the capacity of inspection authorities.
- Ratify the International Convention for the Control and Management of Ships' Ballast Water and Sediments of 2004 (BWM Convention).

Ecosystem assessment and accounting

- Support the development of the national business and biodiversity network.
- Ratify the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity.

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

- Reduce industrial air pollution damage and intensity.
- 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 to the IED.

Noise

- Complete noise mapping.
- Complete and implement action plans on noise management.

Water quality and management

Water Framework Directive

• Ensure periodic reviews of permits for discharges, abstractions and other water uses, including hydropower pressures.

Flood 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).
- Improve public consultation and stakeholder involvement

Nitrate 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 UWWTD, taking into account the new requirements of the recast directive.

Chemicals

- Upgrade the administrative capacities in implementation and enforcement to move towards a policy
 of zero tolerance of 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 checks and checks of products sold online with regard to compliance with chemicals legislation.

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 are set out in the 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
- Improve access to courts in national environmental cases by the public concerned and eliminate practical barriers, such as length of proceedings and excessive costs in some Member States.

Environmental Liability Directive

• Encourage the use of training programmes provided by the Commission (or developed at the national level) covering the ELD and its interaction 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.

Compliance assurance

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