



EUROPEAN
COMMISSION

Brussels, 7.7.2025
SWD(2025) 321 final

COMMISSION STAFF WORKING DOCUMENT

2025 Environmental Implementation Review Country Report - PORTUGAL

Accompanying the document

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

2025 Environmental Implementation Review for prosperity and security

{COM(2025) 420 final} - {SWD(2025) 300 final} - {SWD(2025) 301 final} -
{SWD(2025) 302 final} - {SWD(2025) 303 final} - {SWD(2025) 304 final} -
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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 Portugal. 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 Portugal such challenges have been lingering since the first EIR in 2017 and require urgent action.

Despite progress made, Portugal needs further efforts on improving **waste management** and developing the potential of the **circular economy**. Portugal adopted a national Circular Economy Action Plan in 2017, and a new one is still under preparation. New national legislation on waste management was approved in 2020. The new national waste management plan (PNGR 2030) and the plans for municipal and non-municipal waste (PERSU 2030 and PERNU 2030) were adopted in 2023. Moreover, the new regional waste management plans for Madeira and Azores were adopted, in 2021 and 2023, respectively. Portugal missed the EU target of recycling 50 % of municipal waste by 2020 and it is at high risk of missing the new EU waste targets for 2025.

Portugal has a rich **biodiversity**. 21.2 % of its territory belongs to the EU Natura 2000 network (the EU average is 18.6 %). However, some species and habitats, particularly in the marine environment, are not sufficiently protected. Portugal has recently approved additional designations for marine sites. Furthermore, Portugal needs to adopt management plans for the sites already designated,

identifying the site-specific conservation objectives and measures and providing the necessary technical, human and financial resources.

Despite the progress that Portugal has made in recent years, challenges remain in **water management**, especially in the areas of water governance, waterbody rehabilitation and water efficiency. Further infrastructure investment is needed to improve water management, such as in wastewater collection and treatment, reducing leaks in the networks and general water supply and improving monitoring (quality and quantity), as well as adopting nature-based solutions and undertaking river restoration. Moreover, Portugal should take advantage of the potential of water reuse. Portugal adopted in 2024, following a certain delay, the third cycle of River Basin Management Plans under the Water Framework Directive. Portugal also approved in 2024 the PENSAARP 2030, a new national strategic Plan for water supply, wastewater and pluvial waters management. Portugal has also presented in March 2025 a far-reaching national strategy on water.

Anticipating and adapting to the adverse effects of **climate change**, such as floods, coastal erosion, droughts, heat waves and forest fires, remains a core challenge in Portugal. In addition, **sustainable development** could be further mainstreamed into other policy areas.

The support of **EU funding** has significantly contributed to improving the implementation of EU environmental law and policy in Portugal. Nevertheless, Portugal still faces considerable environmental challenges and investment needs. To meet the four environmental objectives beyond climate change, the additional investment need over the current levels (the investment gap) is estimated at EUR 1.6 billion per year, representing around 0.65 % of gross domestic product, which is lower than the EU average (0.77 %), with the highest shares for biodiversity and ecosystems. EU financing will continue to play a key role in addressing the shortcomings and closing the investment gaps.

In terms of **good practices** by Portugal, in addition to those mentioned in previous EIRs, it can be highlighted the measures adopted to improve forest management, including fighting forest fires. It is also outstanding the high share of agricultural land under organic farming. Moreover, in the field of environmental governance, Portugal has continued adopting measures to improve access to justice and compliance assurance, including compliance promotion and inspections.

⁽¹⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Delivering the benefits of EU environmental policies through a regular

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

Part I: Thematic areas

1. Circular economy and waste management

Transitioning to a circular economy

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

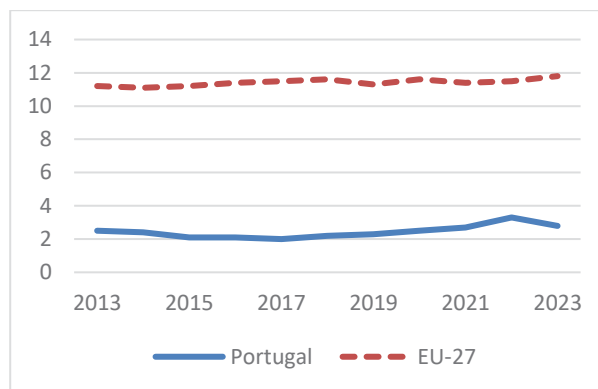
The 2020 CEAP launched the legislative process for a set of initiatives that will now have to be implemented by national governments across the EU. These initiatives were all introduced following a holistic life-cycle approach, with measures addressing the different stages of a product's life cycle,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

Portugal's circular use of materials has been relatively steady since 2013, with a small increase since 2017. With a rate of 2.8 % in 2023, it is well below the EU average of 11.8 % (Figure 1).

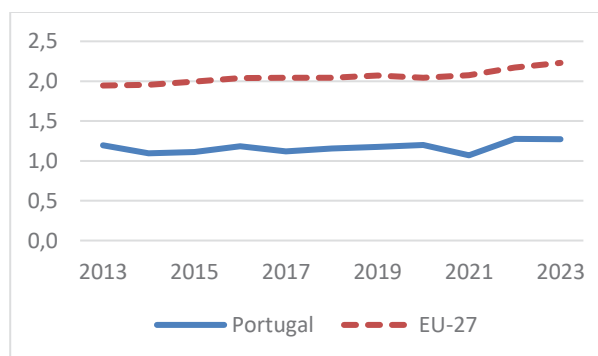
Figure 1: CMUR (%), 2013–2023



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

Resource productivity measures the total amount of materials directly used by an economy in relation to gross domestic product (GDP). Improving resource productivity can help to minimise negative impacts on the environment and reduce dependency on volatile raw material markets. In 2023, Portugal generated EUR 1.26 per kg of material, against the EU average of EUR 2.23 (Figure 2).

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



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

⁽²⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – A new circular economy action plan for a cleaner and more competitive Europe,

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

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

Policies and measures

In parallel with European initiatives under the CEAP, Member States are encouraged to adopt and implement circular strategies at the national, regional and city levels. These should be tailored to each national and local reality, to harness the proximity economy's ⁽³⁾ potential, while following the principles of a holistic whole-value-chain approach.

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

Portugal is set to adopt a new Circular Economy Action Plan for 2024–2030 (2030 CEAP). The Action Plan will have as main objectives those of avoiding the over-exploitation of non-renewable sources, reducing waste generation, preventing pollution, raising awareness and creating socio-economic benefits.

The proposal for the new Action Plan for 2030 includes a set of indicators that aim to monitor and assess the transition to a circular economy. This set of indicators considers four areas of impact, namely resources, environment, economy and society. It is set to include measures at three levels: macro, meso and micro. This mirrors the approach of the previous Portuguese Action Plan. The macro level includes transversal initiatives applicable to all sectors and regions, whereas the meso level includes measures targeted at priority sectors, and the micro level aims to stimulate strategies at the regional and local levels.

The upcoming 2030 CEAP is set to replace the 2017 CEAP ⁽⁵⁾, which was reviewed in 2019 and extended to 2021. According to an evaluation published in 2021 ⁽⁶⁾, of the 57 guidelines recommended, 44 were addressed (about 77 % of cases). Action 1 – Design, repair, reuse: extended producer responsibility – was the one in which a lower percentage of guidelines was implemented (50 %),

while Action 7 – Investigate and innovate for a circular economy – was the only one in which all the guidelines were addressed.

Four economic sectors were considered strategic in the 2017 CEAP, namely construction, food and agriculture, tourism and textiles. The plan also had a regional dimension to complement EU and national measures.

The Programme InC2 – the National Circular Cities Initiative of the Portuguese Ministry for Environment and Climate Action – implements the objective of the national CEAP to develop circular cities. Four Circular Cities Networks (RC2) were developed, each focusing on a specific priority theme and addressing one or more of the defined transversal themes. Between 2019 and 2023, 28 Portuguese municipalities participated in the initiative.

The 2022 Environmental Implementation Review (EIR) also highlighted, as good practices, several initiatives in Portugal to support the circular economy in certain economic sectors.

It is worth recalling that there are measures promoting the circular economy in Component 12 on Bio-economy of Portugal's Recovery and Resilience Plan (RRP) ⁽⁷⁾.

Portugal's National Energy and Climate Plan (NECP) ⁽⁸⁾ clearly links climate action to the circular economy, because of the potential of circularity for making progress towards climate neutrality and territorial cohesion.

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 (life-cycle analysis, PaaS (platform as a service), second hand) can help drive the demand for sustainable products that meet reparability and recyclability standards.

As announced in the 2022 EIR, a new national strategy on green public procurement (GPP) has been adopted in 2023. This is also a reform under Component 12 of Portugal's RRP. The National Strategy for Green Public Procurement – ECO360 – approved by Resolution of the Council of Ministers No 13/2023, defines the vision,

⁽³⁾ European Commission, 'Proximity and social economy ecosystem', European Commission website, https://single-market-economy.ec.europa.eu/sectors/proximity-and-social-economy_en.

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

⁽⁵⁾ APA, 'Action plan for a circular economy' (in Portuguese), APA website, <https://apambiente.pt/apa/economia-circular>.

⁽⁶⁾ APA, *Balanço das Atividades do PAEC e dos resultados alcançados entre 2018 e 2020* [Evaluation of PAEC's Activities and Results Achieved between 2018 and 2020], 2022, https://apambiente.pt/sites/default/files/SNIAMB_A_APA/Iniciativas_transectoriais/PAEC_RelatorioFinal.pdf.

⁽⁷⁾ European Commission, 'Portugal's recovery and resilience plan', European Commission website, https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility/country-pages/portugals-recovery-and-resilience-plan_en.

⁽⁸⁾ European Commission, 'National energy and climate plans', European Commission website, https://commission.europa.eu/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en.

objectives and main vectors of action for green public procurement in Portugal. This instrument plays a strategic role in the pursuit of the sustainable development of the Portuguese economy. One of the objectives of this strategy is to promote resource efficiency, a sustainable bioeconomy and the transition to a circular economy through: (i) the adoption of circularity criteria and products from the sustainable bioeconomy in public procurement, (ii) the stimulation of the development of new circular products, services and business models and (iii) the promotion of efficiency in the use of resources and retention of the value of materials. For each strategic objective, goals and indicators are defined. Actions and measures are detailed in the Action Plan adopted in October 2024 through Resolution of the Council of Ministers No 162/2024.

Resolution of the Council of Ministers No 132/2023 defined the green criteria applicable to the conclusion of contracts by entities in the direct and indirect public administration for 16 product groups, such as paper products; furniture; textiles; catering services; copying and printing services and equipment; acquisition or rental of computer equipment; and public works contracts. For each product group mandatory, voluntary and recommended criteria were established.

The EU Ecolabel and the eco-management and audit scheme

The number of EU Ecolabel⁽⁹⁾ product groups and the number of eco-management and audit scheme⁽¹⁰⁾ (EMAS)-licensed organisations in each country provide some indication of the extent to which the private sector and national stakeholders in that country are actively engaged in the transition to a circular economy. The EU Ecolabel is awarded to products with best-in-class environmental performance. EMAS is a voluntary environment management scheme aimed at reducing the environmental impacts of organisations.

By September 2024, Portugal had 6 950 products, a lot of them in the textile category, and 34 licences out of 98 977 products and 2 983 licences registered in the EU Ecolabel scheme. Moreover, in October 2024, 44 organisations from Portugal were registered in EMAS, 3 fewer than in October 2021.

It is also worth mentioning that the city of Guimarães has been designated as European Green Capital for 2026⁽¹¹⁾.

The CMUR of Portugal had decreased by 0.5 percentage points in 2023, remaining one of the lowest in the EU. This does not represent any progress towards the 2022 priority action to take measures to increase the rate.

While Portugal has a strong policy basis for the transition to a circular economy, progress has not been made on the 2022 priority action, suggesting the need to put in place an updated national action plan.

2025 priority actions

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

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;
- fully implementing EU waste legislation, which includes the waste hierarchy, the obligation to ensure separate collection of waste, landfill diversion targets, etc.;
- reducing waste generation per capita and in absolute terms;
- 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;
- limiting energy recovery to non-recyclable materials; and
- phasing out landfilling of recyclable or recoverable waste.

One of the main objectives of 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

⁽⁹⁾ European Commission, 'EU Ecolabel facts and figures', European Commission website, https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel/businesses/ecolabel-facts-and-figures_en.

⁽¹⁰⁾ EMAS is a European Commission programme to encourage organisations to behave in a more environmentally sustainable way (https://green-business.ec.europa.eu/emas_en).

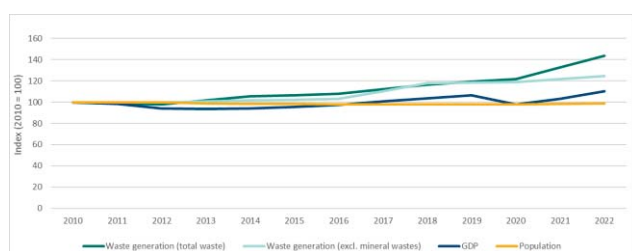
⁽¹¹⁾ European Commission, European Green Capital Award, <https://environment.ec.europa.eu/topics/urban-environment/european-green-capital-award/winning-cities/guimaraes->

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 Portugal has increased over the last 12 years (Figure 3).

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



Source: Eurostat, 'GDP and main components (output, expenditure and income)', nama_10_gdp, accessed 15 October 2024, https://ec.europa.eu/eurostat/databrowser/view/nama_10_gdp_cust_om_9301905/default/table.

This trend is mainly driven by the significant increase in the large waste categories: mixed waste and recyclable waste. Excluding major mineral wastes does not strongly affect the overall trend. However, a notable increase in 2022 was caused by a doubling of the amounts of mineral and solidified waste, mainly due to a strong increase in soil and dredging spoils. Overall, Portugal's GDP increased over the period covered with a small drop in 2020, most likely due to the COVID-19 outbreak. In general, it seems that there has been no decoupling of waste generation from economic growth.

Critical raw materials

The eMaPriCE project on the management of waste containing CRMs was developed during 2021/2022 with the objective of identifying opportunities for implementing circular economy strategies to prevent

CRMs ending up as waste. It also looks at options for substituting CRMs with non-critical materials.

Portugal's upcoming 2030 CEAP includes measures to promote the use of recycled materials over raw material extraction. A key action proposed is to study potential policies and financial incentives that favour recycled content and reduce reliance on CRMs.

The 2030 national waste management plan supports the CEAP's implementation, aiming to reintegrate materials into the economy, covering areas like food, construction, plastics, textiles and CRMs. Furthermore, the 2030 Strategic Plan for Urban Waste (*plano estratégico para os resíduos urbanos* (PERSU 2030) outlines strategies to prevent CRMs from becoming waste and explores their substitution with non-critical materials.

Construction and demolition waste

Construction and demolition waste accounts for almost 40 % of all waste generated in the EU. A study ⁽¹²⁾ by the Joint Research Centre (JRC) shows that preparing for 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. However, the economics often do not favour preparing for reuse and recycling over incineration and landfilling. If available technology was adopted, it is estimated that the increase in preparing for reuse and recycling would lead to an additional saving of 33 Mt of greenhouse gas (GHG) emissions annually (more than, for example, the combined annual GHG emissions of Estonia, Latvia and Luxembourg).

The rate of preparing for reuse and recycling of mineral construction and demolition waste in Portugal in 2022 was 42.6 % compared with the EU average of 79.8 %. Measures to further increase the rate of preparing for reuse and recycling of construction and demolition waste include separate collection at source, for instance through digitalised pre-demolition audits ⁽¹³⁾ (known as 'resource assessments') and other economic instruments as well as upstream measures such as increasing the recycled content in construction products and the circular design ⁽¹⁴⁾ of construction works.

⁽¹²⁾ European Commission: Joint Research Centre, *Techno-economic and environmental assessment of construction and demolition waste management in the European Union*, Publications Office of the European Union, Luxembourg, 2024, <https://publications.jrc.ec.europa.eu/repository/handle/JRC135470>.

⁽¹³⁾ European Commission: Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, *EU Construction & Demolition Waste Management Protocol including guidelines for*

pre-demolition and pre-renovation audits of construction works – Updated edition 2024, Publications Office of the European Union, Luxembourg, 2024, <https://op.europa.eu/en/publication-detail/-/publication/d63d5a8f-64e8-11ef-a8ba-01aa75ed71a1/language-en>.

⁽¹⁴⁾ European Commission, *Circular Economy – Principles for building design*, Brussels, 2020, <https://ec.europa.eu/docsroom/documents/39984>.

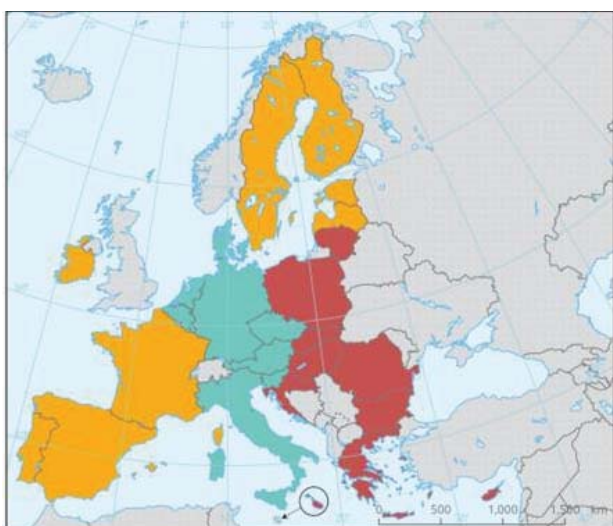
Boosting implementation – the 2023 *Waste Early Warning Report*

This section focuses on the management of municipal waste, for which EU law sets mandatory recycling targets ⁽¹⁵⁾. It is worth recalling that Portugal is one of the countries that missed the EU target of recycling 50 % of municipal waste by 2020.

In June 2023, the Commission published the *Waste Early Warning Report* ⁽¹⁶⁾ identifying the general trends in waste management and the Member States at risk of missing 2025 waste targets (see Figure 4).

Portugal is in the category of countries at risk of missing the municipal waste targets. Portugal is also at risk of not meeting the 2035 target of a maximum of 10 % of municipal waste landfilled.

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 % packaging waste recycling target
- Member States at risk for the municipal waste preparing for reuse and recycling target but not at risk for all packaging waste recycling target

■ Member states at risk for both targets

■ Outside coverage

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

Under certain conditions, EU waste legislation enables some Member States to postpone the deadlines for reaching certain waste management targets for municipal and packaging waste. Member States that want to use this possibility, have to notify the Commission 24 months in advance of the deadline and submit an implementation plan laying down the steps they envisage for reaching the postponed targets within a new time frame. Regarding the 2025 targets, 11 Member States, including Portugal, have used this prerogative.

On 29 December 2023, Portugal notified the Commission of its intention to postpone its attainment of the aluminium and glass packaging waste recycling target for 2025, established by the Packaging and Packaging Waste Directive. Attached to this notification, Portugal submitted an implementation plan laying down the measures necessary to attain the targets within a postponed time frame (i.e. 2030 instead of 2025). According to the implementation plan, the main measures Portugal will put in place include implementing a deposit return scheme (DRS), improving data reporting systems and extending its extended producer responsibility scheme to all packaging from 2025 onwards.

In the *Waste Early Warning Report*, the Commission recommended that Member States accelerate their efforts to improve their recycling performance.

On the one hand, the Commission is working with the national authorities and stakeholders to speed up the implementation of appropriate measures to meet the targets, including through dedicated financing.

On the other hand, the Commission is pursuing enforcement actions against those Member States that, based on data submitted to the Commission, do not achieve the targets of the Waste Framework Directive ⁽¹⁷⁾, the Packaging and Packaging Waste Directive 2024 ⁽¹⁸⁾ and the Directive on Waste Electrical and Electronic Equipment ⁽¹⁹⁾.

⁽¹⁵⁾ 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 3.2(b)).

⁽¹⁶⁾ https://environment.ec.europa.eu/publications/waste-early-warning-report_en.

⁽¹⁷⁾ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, [Directive - 2008/98 - EN - Waste framework directive - EUR-Lex](#)

⁽¹⁸⁾ European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste, [Directive - 94/62 - EN - EUR-Lex](#).

⁽¹⁹⁾ Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), [Directive - 2012/19 - EN - EUR-Lex](#)

Therefore, an infringement procedure (2024/2145) against Portugal was launched in July 2024 ⁽²⁰⁾.

Municipal waste

Municipal waste generation in Portugal shows a moderate increase since 2013 (Figure 5). In 2022, Portugal generated 510 kg per capita of municipal waste, just below the (estimated) EU-27 average of 513 kg per capita. In 2020 and 2021, Portugal reported more municipal waste treated than generated. This situation is due to quantities of waste that are stored for one year and treated the next, and it may also be due to methodological issues that are currently being analysed in more detail by the Portuguese Environment Agency (*Agência Portuguesa do Ambiente* (APA)) along with the National Statistics Institute to ensure convergence of methodological approaches.

The rate of preparing for reuse and recycling of municipal waste in Portugal shows a moderate increase between 2012 and 2022 (Figure 6), reaching 30 % in 2022, which is significantly below the estimated EU-27 average of 49 %. Portugal relies heavily on mechanical biological treatment (MBT), and the amounts reported as composted and digested include MBT outputs. In 2020 and 2021, less waste was sent to MBT plants as a measure to contain the COVID-19 pandemic, as well as undertaking improvement and requalification work at the plants ⁽²¹⁾. Compost derived from mixed waste will not be allowed to count towards the preparing for reuse and recycling target of the Waste Framework Directive from 2027 onwards, which could result in a decrease in Portugal's overall recycling rate in the future ⁽²²⁾.

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



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

Moreover, it appears that a significant number of irregular and substandard landfills are operating in Portugal. These sites do not meet the EU landfilling standards (i.e. they lack pretreatment of waste or do not treat the organic fraction). A 2017 study ⁽²³⁾ revealed shortcomings in four of the five landfills visited in Portugal. At least 59 % of municipal waste is landfilled without any treatment. Furthermore, Portugal has not set up a suitable integrated network of waste management installations for mixed municipal waste. In February 2022, the Commission initiated an infringement procedure (2021/2258) for failing to comply with the Landfill Directive ⁽²⁴⁾ and the Waste Framework Directive ⁽²⁵⁾, sending a letter of formal notice to Portugal ⁽²⁶⁾. The case is now at the reasoned opinion stage.

However, both the strategic plan (2030 PERSU) and the specific plans of the entities managing municipal and multi-municipal systems (PAPERSU, the action plans for its implementation prepared by the local authorities and

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

⁽²⁰⁾ European Commission, 'July infringements package: Key decisions', European Commission website, https://ec.europa.eu/commission/presscorner/detail/en/inf_22_3768.

⁽²¹⁾ Information provided by the APA during the Eionet review of the draft EEA country profile on waste management for Portugal.

⁽²²⁾ European Environment Agency (EEA), *Early warning assessment related to the 2025 targets for municipal waste and packaging waste – Portugal*, 2022, <https://www.eea.europa.eu/publications/many-eu-member-states/portugal/view>.

⁽²³⁾ European Commission, *Study to assess the implementation by the EU Member States of certain provisions of Directive 1999/31/EC on the landfill of waste*, Publications Office of the European Union,

Luxembourg, 2017, <https://op.europa.eu/en/publication-detail/-/publication/cd1748fb-0884-11e7-8a35-01aa75ed71a1>.

⁽²⁴⁾ Council Directive 1999/31/EC of 126 April 1999 on the landfill of waste (OJ L 182, 16.7.1999, p. 1), <https://eur-lex.europa.eu/eli/dir/1999/31/oj/eng>.

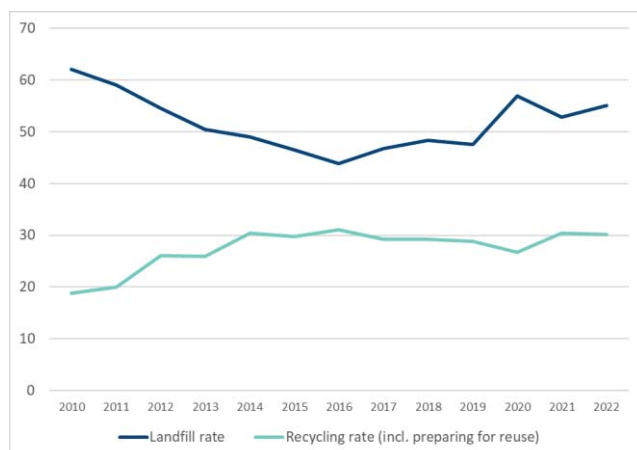
⁽²⁵⁾ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3), <https://eur-lex.europa.eu/eli/dir/2008/98/oj/eng>.

⁽²⁶⁾ European Commission, 'February infringements package: Key decisions', European Commission website, https://ec.europa.eu/commission/presscorner/detail/en/inf_22_601.

approved by APA) include a strong commitment to separate collection of biowaste or, when this is not viable, its treatment at source, and many municipal and multi-municipal systems have started separate collection of biowaste. The incineration rate remained quite stable during this period and stood at 20 % in 2022. The Portuguese landfill rate has been increasing since 2016, having followed a declining trend before that, resulting in a landfill rate of 55 % in 2022. The reasons for this development include temporary closure of MBT plants during the COVID-19 outbreak and technical work on the equipment at waste treatment plants ⁽²⁷⁾.

The data shown in Figure 6 differ from the provisional data reported by the Portuguese authorities that show compliance with the preparing for reuse and recycling target of 55 % for 2025, as laid down in the Waste Framework Directive. Portugal reported a rate of preparing for reuse and recycling in response to the target that was in the range of 1–5 percentage points higher than the data shown in Figure 6 for reference year 2022. These data are still awaiting final validation by Eurostat ⁽²⁸⁾.

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



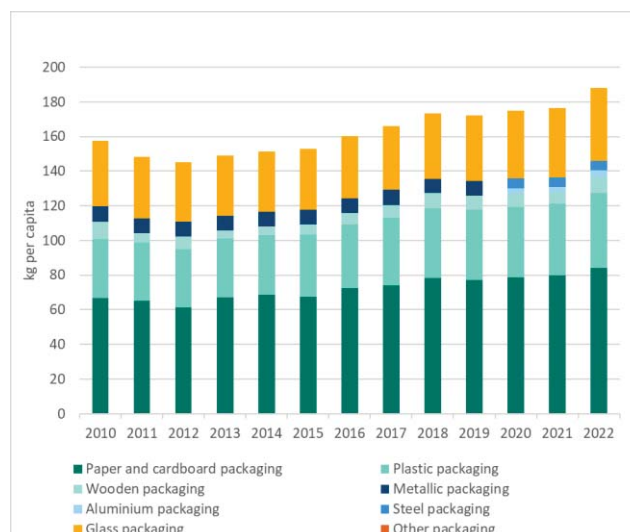
NB: As of reference year 2020, new reporting rules apply for calculating recycled municipal waste pursuant to the targets laid down in Article 11.2(c)–(e) of Directive 2008/98/EC. Portugal has applied the new calculation rules from reference year 2021 onwards (APA, 2024).

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

Packaging waste

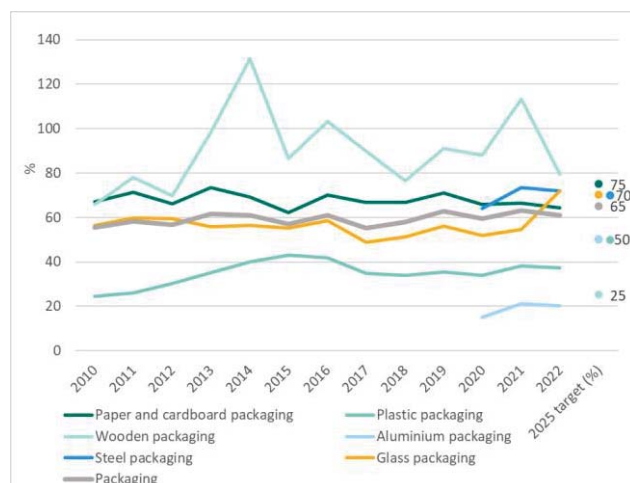
Total packaging waste generation in Portugal has significantly increased since 2010. The country generated 188 kg per capita in 2022 (Figure 7), which is very close to the estimated European average of 186 kg per capita in the same year ⁽²⁹⁾.

Figure 7: Packaging waste generation, 2010–2022



Source: Eurostat, 'Packaging waste by waste management operations', env_waspac, last updated 23 October 2024, accessed 28 October 2024, https://ec.europa.eu/eurostat/databrowser/view/ENV_WASPAC_custom_842634/default/table?lang=en.

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



Source: Eurostat, 'Packaging waste by waste management operations', env_waspac, last updated 23 October 2024, accessed 28 October 2024, https://ec.europa.eu/eurostat/databrowser/view/ENV_WASPAC_custom_842634/default/table?lang=en.

⁽²⁷⁾ Information provided by the APA during the Eionet review of the draft EEA country profile on waste management for Portugal.

⁽²⁸⁾ Information provided by Eurostat on provisional data in response to the reporting obligation in Article 37(1) of the Waste

Framework Directive related to the target on preparing for reuse and recycling of municipal waste (Art. 11(2)(c)).

⁽²⁹⁾ 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.

The Portuguese overall packaging waste recycling rate shows a moderate increase between 2010 and 2022, reaching 61 % in 2022 (Figure 8). The recycling rate of wooden packaging has been fluctuating over the past decade, which is assumed to be caused by difficulties in distinguishing between reusable and non-reusable packaging. This is also demonstrated by the high recycling rate of this fraction, reaching 132 % in 2014 and 113 % in 2021. Paper and cardboard, plastics and glass packaging waste are the largest fractions and are mainly responsible for the total packaging recycling rate. Plastic packaging recycling shows a significant increase until 2015 but has stagnated since then. For reference year 2020 and onwards, it is mandatory to report steel and aluminium packaging separately. The recycling rate of steel packaging waste exceeded the 2025 target.

Legal framework and waste management plans

By 5 July 2020, Member States had to bring their national laws into line with modifications included in the revised Waste Framework Directive, the Packaging and Packaging Waste Directive and the Landfill Directive ⁽³⁰⁾.

Waste management plans and waste prevention programmes are instrumental to the full implementation of EU waste legislation. They set out key provisions and investments to ensure compliance with existing and new legal requirements (e.g. on waste prevention, on separate collection for certain waste streams, on recycling and on landfill targets). Revised plans and programmes were also due on 5 July 2020.

In Portugal, as explained in the 2022 EIR, new national legislation on waste management was approved in 2020. The national macro-strategy on prevention and waste management is established by the 2030 national waste management plan (*Plano nacional de gestão de resíduos* (PNGR)), adopted in March 2023, which defines the 2030 PERSU, also adopted in March 2023, and the 2030 strategic plan for non-municipal waste (*Plano estratégico para os resíduos não urbanos* (PERNU)), adopted in October 2023. They promote changes in Portuguese waste management by means of encouraging waste prevention and the circular economy. Moreover, the new regional waste management plans for Madeira and Azores were adopted in 2021 and 2023, respectively.

Policies to encourage waste prevention

Portugal's National Waste Prevention Programme (NWPP) is integrated into the 2030 PERSU, PERNU and PNGR, replacing the previous (2020) versions and their updates. The NWPP aligns with updated EU directives and includes evaluations in 2026 and 2028 to inform future strategies.

Although current documents lack details on policy effectiveness evaluation and budgets, action plans with associated budgets for implementing measures are planned. The NWPP focuses on resource efficiency, circular economy promotion, waste prevention awareness, reducing municipal waste, and minimising hazardous substances in materials and waste. Priority waste streams include food/organic waste, hazardous waste, paper, packaging, waste electrical and electronic equipment, textiles and bulky waste.

The 2030 PNGR sets several ambitious quantified targets for waste prevention:

- reduce, by 2030, total waste generation to 85.6 % of the amount generated in 2018;
- reduce the share of hazardous waste in total waste from 7.0 % in 2018 to 4.4 % in 2030;
- reduce waste generation / GDP from 0.08 t per EUR1 000 in the reference year (2018) to 0.059 t per EUR1 000 in 2030.

The 2030 PERNU sets another set of ambitious targets for preventing non-municipal waste generation:

- reduce non-municipal waste generation from 11 427 435 t in 2019 to 9 320 010 t in 2030;
- reduce non-municipal hazardous waste generation from 1 066 055 t in 2019 to 599 261 t in 2030;
- reduce non-municipal waste generation /GDP from 0.056 t per EUR1 000 in 2019 to 0.040 t per EUR1 000 in 2030.

Focusing on food waste, in 2018, Portugal developed a strategy, 'Combat food waste', as well as an action plan. The strategy, inter alia, aims to increase education and awareness campaigns, to facilitate and encourage food donations and to establish food waste monitoring.

The abovementioned CEAP for 2018–2020, adopted in December 2017, is still valid, targeting carbon neutrality and resource efficiency. Portugal also introduced an eco-design work plan to increase the reparability, durability and recyclability of products.

According to 2021 data reported to the European Environment Agency (EEA) in accordance with Commission Implementing Decision (EU) 2021/19, Portugal reused:

- 915 t of textiles;
- 6 378 t of electrical and electronic devices;
- 8 474 t of furniture.

It should be noted that these data have been reported for the first time, and hence caution is advised in drawing insights from the dataset.

⁽³⁰⁾ Directive (EU) 2018/851, Directive (EU) 2018/852, Directive (EU) 2018/850 and Directive (EU) 2018/849 amend the previous waste

legislation and set more ambitious recycling targets for the period up to 2035.

Policies to encourage separate collection and recycling

In Portugal, municipal waste collection primarily occurs via bring points, with door-to-door services mainly in cities, and is supported by civic amenity sites. Municipal systems determine the collection methods. Glass, plastic, composite and metal packaging waste is collected separately, while non-packaging items go to civic amenity sites. The separate collection of food waste is limited to some city neighbourhoods, and mainly targets restaurants and bigger waste producers, but recently is expanding in towns and suburbs, via both door-to-door collection and nearby bring points. In rural areas, community or domestic composting is most common. Finally, textiles and wood waste are collected via civic amenity sites in Portugal.

As of July 2021, Portugal's Decree-Law No 102-D/2020 expands mandatory separate waste collection to include textiles, biowaste and hazardous municipal waste, enhancing coverage and altering collection methods. Nationwide schemes for biowaste, textiles, hazardous and bulky waste will be implemented by improving access to drop-off sites and expanding door-to-door collection. The law also sets goals for collection points and for the quality of the materials collected.

The most recent strategic plan for municipal waste, the 2030 PERSU, has established measures to promote pay-as-you-throw or similar systems in Portugal, which currently apply only to a small share of the population. Additionally, the 2030 PERSU has a specific measure to improve the accessibility and functionality of civic amenity sites, measures to promote pay-as-you-throw systems and to create tariff systems with benefits for home or community composting.

In Portugal, there is a tax on lightweight plastic bags of EUR 0.10 per bag and there are firm plans for bringing in a levy of EUR 0.30 per item of plastic or aluminium single-use packaging purchased in ready-to-eat meals.

Portugal has extended producer responsibility schemes for various types of packaging waste. These schemes cover materials like paper, cardboard, ferrous metals, aluminium, glass, plastics, wood and composite packaging, with fee modulation based on recyclability, recycled content and, for some materials, sortability. Audits by producer responsibility organisations are mandated under Decree-Law No 152-D/2017 to ensure accurate reporting, and the law establishes harmonised criteria for fees.

Portugal has a voluntary DRS for reusable packaging in place. A pilot project was developed to encourage the final consumer to return non-reusable plastic beverage containers. The data obtained during this project helped to design the rules of and procedures for a DRS for non-reusable plastic, ferrous metals and aluminium beverage containers. The DRS had its licence approved at the end of May 2024.

Policies to discourage landfilling or incineration

Portugal has imposed a landfill tax, rather than bans on landfilling, which has been progressively increasing since 2007. The tax rate will rise to EUR 5/t in 2025, which is closely aligned with the EU average for landfill taxes. To encourage biowaste separation and recycling, new legislation stipulates that municipalities adhering to their approved municipal action plans will pay the tax at the previous year's rate.

Portugal has an incineration tax, which depends on whether incineration is for recovery or disposal and amounts to 20 % and 85 % of the landfill tax, respectively.

In conclusion, it should be noted that Portugal is considered to be at risk of not meeting the 2025 targets for preparing for reuse and recycling of municipal waste, for the recycling of glass, plastics, and ferrous and aluminium packaging waste and for the 2035 target to reduce the landfilling of municipal waste. The reported recycling rate for total packaging waste was 63 % in 2021, just below the 2025 target of 65 %.

Progress on increasing recycling and reducing landfilling of municipal waste has stagnated since 2016, and thus Portugal needs to speed up its efforts in this respect. It seems that the effects of recently introduced improvements, such as the extension of separate collection, treatment of biowaste at source and increase in the landfill tax, are not yet reflected in the most recently available data.

In the abovementioned 2023 *Waste Early Warning Report*, the European Commission issued a number of policy recommendations to improve Portugal's performance in waste management:

- Support preparing for reuse of municipal waste and reuse systems for packaging.
- Improve separate collection of recyclables and different packaging waste fractions and make the separate collection of biowaste more convenient.
- Implement and strengthen economic instruments to encourage good waste management, such as increasing the landfill tax and implementing a mandatory pay-as-you-throw system and a deposit return scheme.
- Further develop waste treatment infrastructure associated with the higher levels of the waste hierarchy.

It is also important to note that, in line with the EIR assessment, Portugal has received in the framework of the

2022 ⁽³¹⁾ and 2023 ⁽³²⁾ European Semester a country-specific recommendation (CSR) on circular economy and waste management:

- ‘Enhance the conditions for a transition towards a circular economy, in particular by increasing waste prevention, recycling and reuse to divert waste away from landfills and incinerators.’

Moreover, the 2022 EIR also included several priority actions for Portugal on waste management, concerning adequate and updated planning, cooperation among competent authorities, optimisation of the use of existing waste treatment infrastructure and closure and rehabilitation of non-compliant landfills.

Some progress can be observed on the adoption of legal and planning instruments, which now have to be fully implemented. Moreover, several reforms included in Portugal's RRP should improve the situation in the medium term.

Furthermore, in November 2024, Portugal created a Working Group on Waste Management engaging multiple institutions to identify and implement new solutions considering the infrastructure limitations ⁽³³⁾.

Nevertheless, as explained in this section, many challenges in the waste sector remain and the current situation on the ground requires significant improvement. Therefore, the following priority actions are proposed.

2025 priority actions

- Improve municipal waste preparation for reuse and recycling.
- Increase the recycling rates of packaging waste.
- Increase the collection and recycling rate of waste electronic and electric equipment (WEEE).
- Invest in waste prevention measures to reduce the total amount of waste generated.
- Ensure the achievement of the 2025 waste targets, following the recommendations made by the Commission in the Early Warning Reports where applicable.

⁽³¹⁾ European Commission, Recommendation for a Council Recommendation on the 2022 national reform programme of Portugal and delivering a Council opinion on the 2022 stability programme of Portugal, COM(2022) 623 final of 25 March 2022, https://commission.europa.eu/document/download/a70e3197-cb9a-4d54-a72a-d5e89b22acab_en?filename=2022-european-semester-csr-portugal_en.pdf. See CSR-3 and Recital 25.

⁽³²⁾ European Commission, Recommendation for a Council Recommendation on the 2023 national reform programme of

Portugal and delivering a Council opinion on the 2023 stability programme of Portugal, COM(2023) 622 final of 24 March 2023, https://commission.europa.eu/document/download/e4cdbdee-7a79-4e13-80ea-7bd4dc39857a_en?filename=COM_2023_622_1_EN.pdf. See CSR-3 and Recital 32.

⁽³³⁾ Despacho n.º 14013-A/2024, 26.11.2024 <https://diariodarepublica.pt/dr/detalhe/despacho/14013-a-2024-897796612>.

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 and all EU Member States had to submit national biodiversity strategies and action plans (NBSAPs), or to communicate national targets aligned with the global targets, by the end of 2024.

The EU Biodiversity Strategy for 2030 (BDS) aims to put EU biodiversity on a path to recovery by 2030. It sets quantified targets intended to protect and restore nature and manage ecosystems in a sustainable manner, as well as measures to enable implementation and commitments to support global biodiversity. A BDS actions tracker⁽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.

EU Member States' National Biodiversity Strategy 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.

Portugal's 2030 National Strategy of Nature Conservation and Biodiversity 2030 (*Estratégia nacional de conservação da natureza e biodiversidade*)⁽³⁷⁾ was approved by the government on 5 April 2018. It identifies goals for 2030 reflected in more than 100 measures, each with corresponding indicators, priorities, deadlines, means of verification, tools and responsible entities.

Furthermore, on 1 August 2019, the Portuguese government adopted Resolution 143/2019, containing a strategy and recommendations for the implementation of a network of marine protected areas.

In line with this resolution, in October 2024 the Azores regional assembly passed legislation to protect 30 % of its marine territory (almost 300 000 km² of sea). This legislation is part of efforts to meet the UN and EU conservation targets and to fully develop a functional Network of Protected Marine Areas (RAMPA) in Azores by 2030. The process involved consultation with stakeholders, especially the local fishing industry, to which the government plans to offer compensation and support for sustainable practices. The creation of the Azores Marine Park is a significant step towards enhancing Portugal's network of marine conservation areas.

However, Portugal has not yet submitted to the Convention on Biological Diversity an updated NBSAP or national targets following the adoption of the GBF.

Portugal has not ratified the Nagoya–Kuala Lumpur Supplementary Protocol to the Cartagena Protocol on Biosafety.

The EU aims to allocate to biodiversity objectives at least 7.5 % of annual spending under the EU budget in 2024,

⁽³⁴⁾ EU Biodiversity Strategy Actions Tracker (<https://dopa.jrc.ec.europa.eu/kcbd/actions-tracker/>).

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

⁽³⁶⁾ Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869 (OJ L, 2024/1991, 29.7.2024), <http://data.europa.eu/eli/reg/2024/1991/oj>; see also the

Commission web page on the law (https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en).

⁽³⁷⁾ *Estratégia nacional de conservação da natureza e biodiversidade 2030*, Resolução do Conselho de Ministros No 55/2018, Diário da República No 87 Série I, de 7 de maio, <https://www.cbd.int/doc/world/pt/pt-nbsap-v2-pt.pdf>.

rising to 10 % in 2026 and 2027. For details on biodiversity financing and investments in Portugal, see 'Biodiversity and ecosystems' in Chapter 5.

2025 priority action

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

Nature protection and restoration – Natura 2000

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 Directives.

These objectives are to ensure the long-term protection, conservation and survival of Europe's most valuable and threatened species and habitats and the ecosystems they underpin.

Key milestones towards meeting the objectives of the Birds and Habitats Directives are (i) the setting up of a complete and coherent Natura 2000 network; (ii) the designation of Sites of Community Importance (SCIs) as Special Areas of Conservation (SACs) ⁽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

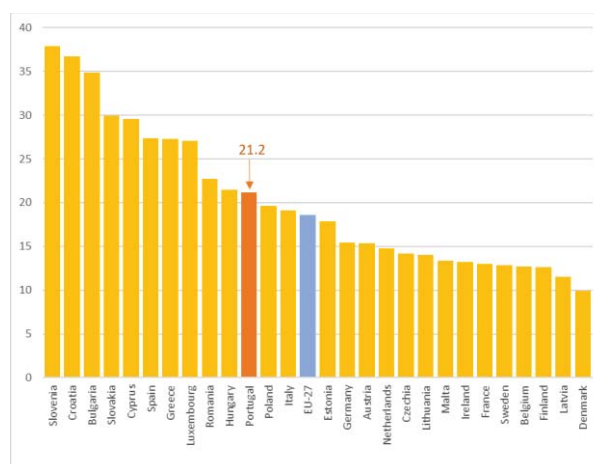
favourable conservation status in their natural range.

As shown in Figure 9, in 2023, 21.2 % of the national land area of Portugal was covered by Natura 2000 (EU coverage 18.6 %), with Special Protection Areas (SPAs) classified under the Birds Directive covering 10.6 % (EU coverage 12.8 %) and Sites of Community Importance (SCIs) or Special Areas of Conservation (SACs) under the Habitats Directive covering 17 % (EU coverage 14.3 %) of the Portuguese territory.

The latest assessment of the SCI/SAC part of the Natura 2000 network showed that some species and habitats, particularly in the marine environment, are not sufficiently protected. Therefore, Portugal should extend its Natura 2000 network with additional designations, particularly for marine sites. The Commission launched an infringement procedure (2019/2148) and a letter of formal notice was sent to Portugal in July 2019. Although some shortcomings had been corrected, an assessment of the case found that insufficiencies persisted. Hence, the Commission notified a reasoned opinion to Portugal in May 2022. This case is still open.

Considering both Natura 2000 and other nationally designated protected areas, Portugal legally protects 22.4 % of its terrestrial areas (EU-27 coverage 26.1 %) and 4.5 % ⁽⁴⁰⁾ of its marine areas (EU-27 coverage 12.3 %) ⁽⁴¹⁾. This is below the EU 2030 target of 30%.

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



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

⁽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.

⁽³⁹⁾ 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⁾ This percentage will increase with the new protected areas in Azores.

⁽⁴¹⁾ Eurostat dataset env_bio4, protected area percentage for 2022, accessed March 2025, https://ec.europa.eu/eurostat/databrowser/view/env_bio4/default/table?lang=en.

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 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.

Following a ruling by the Court of Justice of the European Union on 5 September 2019, Portugal designated as Special Areas of Conservation (SACs) all the existing Sites of Community Importance (SCIs) on the mainland (Atlantic and Mediterranean biogeographical regions). Most of the sites in the Macaronesian biogeographical region had already been designated as SACs. There are, however, two pending designations, for the SCIs 'Menez Gwen' and 'Lucky Strike', for which the six-year deadline set by the Habitats Directive has already expired.

The decree that designated the SACs on the mainland, Decreto Regulamentar 1/2020, does not identify the habitat types and the species protected in each of the sites and is therefore considered by the Commission not to fulfil Portugal's obligations under Article 4(4) of the Habitats Directive.

Moreover, Portugal has not yet adopted management plans for a majority of the SACs on the mainland, and the management plans adopted in the past for the Macaronesian SACs are not sufficiently specific in terms of conservation objectives and measures.

It is therefore urgent that adequate management plans, which identify site-specific conservation objectives and measures for each area, are put in place and that the current management of the Natura 2000 sites is fully in line with those management plans. In this regard, several draft management plans for SACs affected by the ongoing infringement procedure have been put through public consultation. However, no management plans have yet been officially approved for the vast majority of SACs in mainland Portugal.

The Commission therefore considers that Portugal has not yet complied with the ruling of 2019 and has taken

the decision to refer Portugal back to the Court of Justice under Article 260 of the Treaty on the Functioning of the European Union (TFEU), asking pecuniary sanctions to Portugal. The application before the Court has been submitted in September 2024 (Case C-613/24).

2025 priority actions

- Complete the Natura 2000 site designation process.
- 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 Environmental 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 ⁽⁴²⁾.

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.

To measure the performance of Member States, Article 17 of the Habitats Directive and Article 12 of the Birds Directive require reporting on progress towards maintaining or restoring favourable conservation status of species and habitats. According to the report submitted by Portugal on the conservation status of habitats and species covered by the Article 17 of the

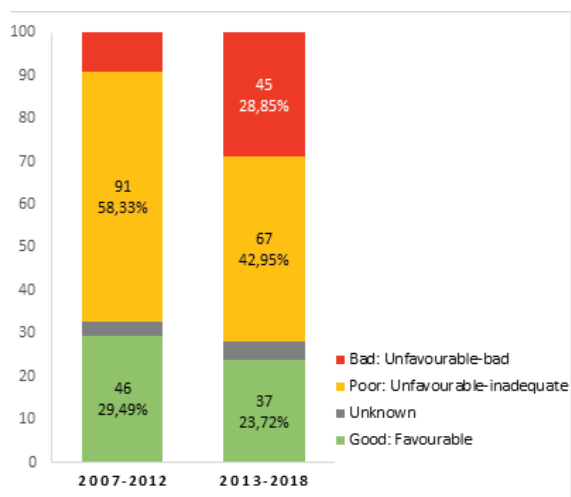
⁽⁴²⁾ EEA State of Nature in the EU: Results from reporting under the Nature Directives 2013–2018, Publications Office of the European Union, Luxembourg, 2020,

<https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020>.

Habitats Directive for 2013–2018, the share of assessments showing habitats with good conservation status in 2018 was 23.7 %. This is less than the 29.5 % reported under the previous reporting period (2007–2012). As for protected species, the share of assessments showing species with good conservation status in 2018 was 26.5 %, more than the 19.7 % reported under the previous reporting period (2007–2012). Only 4 % of the forest area had a favourable conservation status ⁽⁴³⁾. As far as birds are concerned, 30 % of the breeding species showed short-term increasing trends or stable populations (for wintering species was 38.5 %). At the same time, the share of habitats assessed as having bad conservation status had increased to 28.8 % and the share of assessments showing species with bad conservation status had also increased to 11.3 %. The main pressures are from agriculture, urban development and alien and problematic species.

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 2019–2024, is due for submission in July 2025. Figures 10 and 11 show the latest available conservation status data.

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

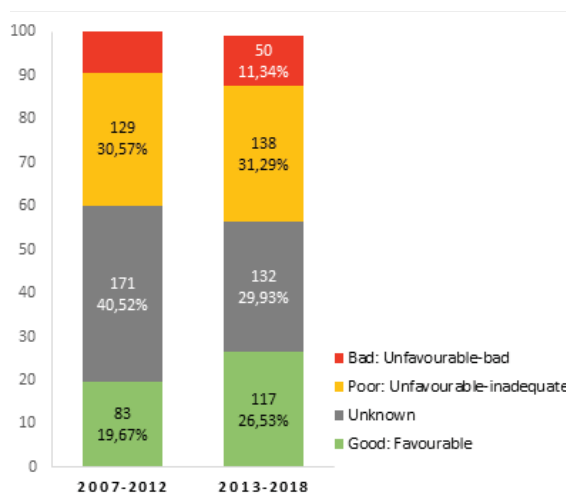


NB: The values shown for 2007–2012 and 2013–2018 are not necessarily directly comparable because changes in area conservation status in a Member State may result from changes to methods or use of better data, rather than reflecting genuine changes.

Source: EEA, 'Conservation status and trends of habitats and species', 19 December 2019, accessed December 2021, <https://www.eea.europa.eu/en/analysis/maps-and-charts/conservation-status-and-trends-article-17-national-summary-dashboards-archived>.

⁽⁴³⁾ EEA, *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 of species for the 2007–2012 and 2013–2018 reporting periods



NB: The values shown for 2007–2012 and 2013–2018 are not necessarily directly comparable because changes in 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/en/analysis/maps-and-charts/conservation-status-and-trends-article-17-national-summary-dashboards-archived>.

It is difficult to assess how the conservation status of habitats and species is evolving, since the worsening trend may in part be due to improved knowledge rather than to actual degradation. It is clear, however, that a lot of work is needed to reach favourable conservation status and, mainly for habitat types, even to fill in the knowledge gaps, which are still considerable.

Among numerous other actions taken by Portugal to improve knowledge of habitats and species is the publication in 2023 of *the Red Book of the Mammals of Continental Portugal* (*Livro Vermelho dos Mamíferos de Portugal Continental*) and several projects to map habitats protected under the Habitats Directive.

In 2023 the Commission decided to open an infringement case by sending a letter of formal notice to Portugal for failing to implement the measures required under the Habitats Directive to avoid bycatch of cetaceans by fishing vessels.⁴⁴

2025 priority actions

- Strengthen the integration of biodiversity actions into other policies, e.g. energy, agriculture, fisheries,

<https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020>.

⁽⁴⁴⁾ INFR(2020)4038.

forestry, urban and infrastructure planning and sustainable tourism, and promote communication between stakeholders.

Recovery of ecosystems

Agricultural ecosystems

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

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

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

The “Vision for agriculture and food”, adopted by the European Commission in February 2025, sets a roadmap to an agri-food system that is attractive, competitive, sustainable and fair for current and future generations. To ensure a sustainable future for EU agriculture, it is crucial that these four priority areas are pursued together, and that public and private support are adequately targeted toward this objective ⁽⁴⁵⁾.

The CAP and national CAP strategic plans 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 strategic plans in 2022 for the programming period 2023-2027. The CAP is the largest source of funding dedicated to supporting biodiversity and plays a significant role in implementing EU environmental policy. Strategic plans should continue to

support the protection of soil, water, air quality and biodiversity.

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

The utilised agricultural area in Portugal decreased from 3 664 700 ha in 2012 to 3 638 040 ha in 2016 and increased to 3 935 910 ha hectares in 2022 ⁽⁴⁶⁾.

Landscape features are small fragments of non-productive and typically, but not exclusively, semi-natural vegetation present in, or adjacent to, agricultural land. They provide ecosystem services and support for biodiversity. The indicator ‘share of agricultural land covered with landscape features’ is the ratio between the area covered by landscape features and the area covered by agricultural land. Based on the Land Use/Cover Area Frame Survey landscape feature estimates ⁽⁴⁷⁾, the share of agricultural land under non-productive landscape features in Portugal is 8.9 %, 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 the good agricultural and environmental condition (GAEC) 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 in their farms. However, the amended regulation does not remove the obligation under the GAEC 8 to maintain existing landscape features and sets 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.

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

⁽⁴⁵⁾ https://agriculture.ec.europa.eu/overview-vision-agriculture-food/vision-agriculture-and-food_en

⁽⁴⁶⁾ Eurostat, ‘Utilised agricultural area by categories’, tag00025, accessed 5 December 2024, <https://ec.europa.eu/eurostat/databrowser/view/tag00025/default/table?lang=en>.

⁽⁴⁷⁾ European Commission, JRC, Landscape features in agricultural land: what is the extent? https://joint-research-centre.ec.europa.eu/jrc-news-and-updates/landscape-features-agricultural-land-what-extent-2024-09-30_en

⁽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

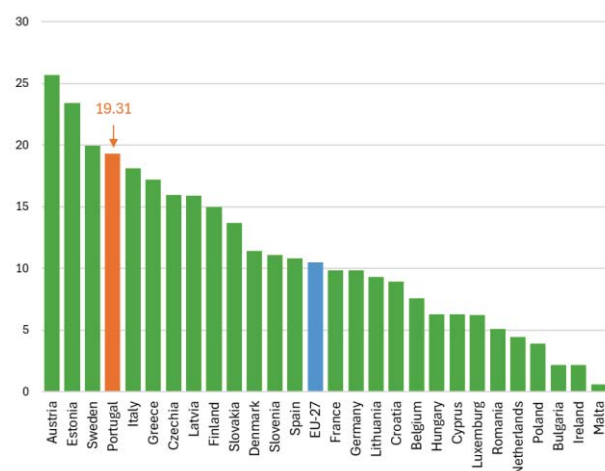
environmental condition standards, schemes for climate, environment and animal welfare, amendment of the CAP strategic plans, review of the CAP strategic plans and exemptions from controls and penalties (OJ L, 2024/1468, 24.5.2024), <http://data.europa.eu/eli/reg/2024/1468/oj>.

⁽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), <http://data.europa.eu/eli/reg/2024/1991/oj>; see also the Commission web page on the law https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en.

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 19.31 % of Portugal's land area is under organic farming. This is the fourth highest share in the EU and substantially higher than the EU average of 10.50 %⁽⁵¹⁾. Portugal is contributing above average to achieving the target to have 25 % of the EU's agricultural land under organic farming by 2030.

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



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

2025 priority action

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

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 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 Portugal⁽⁵³⁾.

The greatest contributor to Portugal's unhealthy soils is unsustainable soil erosion by water, wind, tillage and harvest, which affects 9 % of the national territory and 60 % of total cropland areas. 4 % of the land has a high or very high susceptibility to topsoil compaction, and other indicators of unhealthy soil are negligible.

⁽⁵⁰⁾ The indicators are 'grassland butterfly index'; 'stock of organic carbon in cropland mineral soils' and 'share of agricultural land with high-diversity landscape features'.

⁽⁵¹⁾ Based on the latest available information from Eurostat, currently under review; European Commission, *Agriculture biologique au sein de l'Union européenne*, factsheet, Brussels, 2024, https://agriculture.ec.europa.eu/document/download/c67458e-d-ec50-4762-ae68-341763ab93c2_fr?filename=factsheet-organic-farming_fr.pdf&prefLang=en.

⁽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://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52023PC0416>.

⁽⁵³⁾ Commission staff working document – Impact assessment report: Annexes – Accompanying the proposal for a Directive of the European Parliament and of the Council on Soil Monitoring and Resilience (Soil Monitoring Law), SWD(2023) 417 final of 5 July 2023, https://environment.ec.europa.eu/system/files/2023-07/IMPACT_ASSESSMENT_REPORT_ANNEXES_SWD_2023_417_part4.pdf.

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 Portugal, there are large tracts of natural and semi-natural grasslands, which include areas covered by 11 habitat types listed in Annex I of the Habitats Directive. Grasslands are among the most threatened habitat types in Portugal primarily due to pressures from agricultural practices, including land abandonment and intensification of agriculture. Additional important pressures come from forestry and the impact of invasive alien species. According to reporting under Article 17 of the Habitats Directive for the latest reporting period (2013–2018), 62 % of the assessments showed an unfavourable conservation status.

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 wetland dominated by peat-forming plants such as *Sphagnum* mosses. Nearly all peatlands in the EU are habitat types listed in Annex I of the Habitats Directive. Drained peatlands under intensive agricultural use constitute only 3 % of the EU's utilised agricultural area. At the same time, they are responsible for 25 % of the GHG emissions from the EU's agricultural sector. Restoring peatlands brings multiple benefits, as peatlands improve water retention and quality, store carbon, reduce GHG emissions and increase biodiversity.

In Portugal, wetlands/peatlands are represented by 13 habitat types listed in Annex I of the Habitats Directive (11 under the bogs, mires and fens group, 1 under the coastal habitats group and 1 under the freshwater habitats group). These habitat types are, in general,

seriously threatened in Portugal. According to reporting under Article 17 of the Habitats Directive for the latest reporting period (2013–2018), 83 % of assessments showed an unfavourable conservation status, with a wide range of important pressures and threats, including agriculture, forestry, human-induced changes in water regimes, development and land use, tourism and invasive alien species.

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 of the Habitats Directive. Moreover, forests host several species protected under the Birds and Habitats Directives, including those for which there is a requirement to designate Natura 2000 sites and to protect breeding sites and resting places.

Several guidelines on forestry management were published in 2023 ⁽⁵⁴⁾. They covered biodiversity-friendly afforestation, reforestation and tree planting; closer-to-nature forest management; and defining, mapping, monitoring and strictly protecting primary and old-growth forests. Further guidance on payment schemes for ecosystems services has also been published.

In 2023, the Commission proposed a new Forest Monitoring Law ⁽⁵⁵⁾ 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 ⁽⁵⁶⁾. The share of forested areas in the EU with a bad conservation status increased from 27 % in 2015 to 31 % in 2018.

In Portugal, forests covered 36.2 % of territory in 2020 ⁽⁵⁷⁾ and more than 90 % of the forest habitat assessments under the Habitats Directive reveal a bad or

⁽⁵⁴⁾ European Commission: Directorate-General for Environment, *Guidelines on Closer to-nature Forest Management*, Publications Office of the European Union, Luxembourg, 2023, <https://op.europa.eu/en/publication-detail/-/publication/2d1a6e8f-8cda-11ee-8aa6-01aa75ed71a1>.

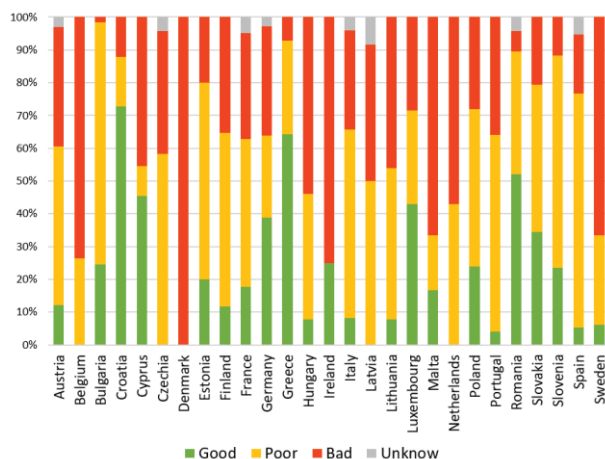
⁽⁵⁵⁾ European Commission, 'Forest monitoring', European Commission website, https://environment.ec.europa.eu/topics/forests/forest-monitoring_en.

⁽⁵⁶⁾ EEA, *State of Nature in the EU: Results from reporting under the Nature Directives 2013–2018*, Publications Office of the European Union, Luxembourg, 2020, <https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020>.

⁽⁵⁷⁾ EEA, forest information system for Europe, 'Countries – FISE country factsheets', forest information system for Europe website, <https://forest.eea.europa.eu/countries>.

poor status⁽⁵⁸⁾ (Figure 13). Some 24 000 ha in Portugal are covered by primary forests⁽⁵⁹⁾.

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



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

Among forest disturbances contributing to loss of forest integrity and related biodiversity loss, wildfires are a particular reason for concern. In 2022, the EU saw a record number (2 700) of wildfires affecting more than 30 ha, which led to the destruction of 785 605 ha of forest, the second highest annual figure recorded. Recent years have also witnessed the occurrence of widespread uncontrollable fires (known as megafires), which are associated with loss of life and an enormous cost in terms of damage to the environment, businesses and society (over EUR 2 billion annually) and carbon dioxide (CO₂) emissions. Megafires are practically beyond fire suppression capacity and can be prevented only by an integrated risk management approach.

Wildfire prevention is also essential to preserve resources for the bioeconomy.

Under Component 8 “Forests” of the RRP Portugal, the “Programa MAIS Floresta” focuses on the difficulties of rural areas. The decrease in population, unfavourable economic conditions, lack of management/maintenance of areas and fragmentation of rural property, factors that, associated with the exodus of the population to cities and the ageing of the rural population, contributed to the abandonment of spaces, previously treated; for the uncontrolled growth of shrub and tree vegetation in these areas, increasing the potential risk of fire.

The measures in this component aim to transform the landscape of vulnerable and unmanaged forest territories, with high fire risks, in order to prevent rural fires and increase climate and economic resilience, through programs to: Transformation of the landscape of vulnerable forest territories; Registration of rural property and land occupation monitoring system; Fuel management – primary network; Means of preventing and fighting rural fires.

The EU Timber Regulation (EUTR)⁽⁶⁰⁾ prohibits the placing on the EU market of illegally harvested timber.

On 29 June 2023, the Regulation on Deforestation-free Products (EUDR)⁽⁶¹⁾ entered into force⁽⁶²⁾. The regulation seeks to guarantee that products in the EU that are made using any of seven commodities have no links to deforestation. The EUDR repeals the EUTR.

Marine ecosystems

The Marine Strategy Framework Directive (MSFD)⁽⁶³⁾ 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

⁽⁵⁸⁾ Commission staff working document – Stakeholder consultation and evidence base: Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – New EU forest strategy for 2030, SWD(2021) 652 final of 16 July 2021, <https://eur-lex.europa.eu/legal-content/NL/TXT/?uri=CELEX:52021SC0652>.

⁽⁵⁹⁾ European Commission: Joint Research Centre, *Mapping and assessment of primary and old-growth forests in Europe*, Publications Office of the European Union, Luxembourg, 2021, p. 13, <https://publications.jrc.ec.europa.eu/repository/handle/JRC124671>.

⁽⁶⁰⁾ Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010 laying down the obligations of operators who place timber and timber products on the market (OJ L 295, 12.11.2010, p. 23), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32010R0995>.

⁽⁶¹⁾ Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010 (OJ L 150, 9.6.2023, p. 206), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32023R1115&qid=1687867231461>.

⁽⁶²⁾ This new legislation will apply to large and medium-sized companies starting on 30 December 2025, and to micro and small enterprises starting on 30 June 2026.

⁽⁶³⁾ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) (OJ L 164, 25.6.2008, p. 19), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008L0056>.

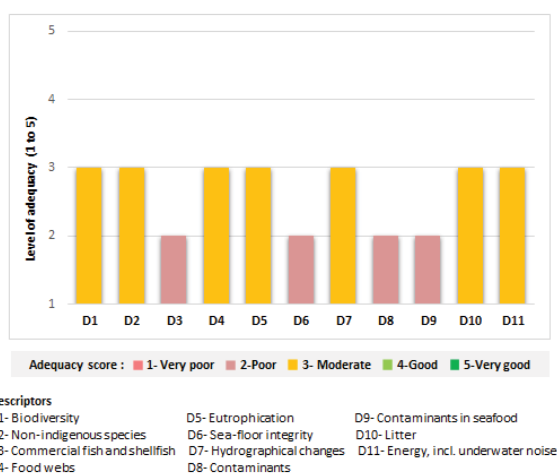
marine strategies comprise different steps to be developed and implemented over 6-year cycles.

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⁽⁶⁴⁾, Member States must include as part of their set of GES characteristics any threshold values for the descriptors in the MSFD that may have been established in cooperation with other Member States at the EU or regional level⁽⁶⁵⁾.

The Commission assessed the updated monitoring programme reported by Member States in 2020⁽⁶⁶⁾. At that time their updates on the elements, features and parameters identified monitoring gaps. The Commission recommended that Member States should prioritise work to address those gaps at all levels of implementation of the MSFD.

Member States also reported their updated Programme of Measures, that is required under Article 13 of the MSFD and that must be updated every 6 years. The Commission has assessed Member States' Programmes of Measures.

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



⁽⁶⁴⁾ Commission Decision (EU) 2017/848 laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU (OJ L 125, 18.5.2017, p. 43), <http://data.europa.eu/eli/C/2024/2078/oj>.

⁽⁶⁵⁾ Communication from the Commission – Commission Notice on the threshold values set under the MSFD (Directive 2008/56/EC)

While moderate progress is noted in some areas, Portugal's updated Programme of Measures overall indicates potential for improvement on most descriptors.

Measures for sea-floor integrity (D6) for instance focus mostly on knowledge and monitoring activities of seabed habitats rather than direct actions targeting the actual pressures such as dredging and trawler fishing. The same applies for measures addressing marine litter (D10) and underwater noise (D11).

For commercial fish and shellfish (D3), eutrophication (D5) and contaminants in seafood (D9), no new measures specific to these descriptors were reported, leaving several important pressures insufficiently covered.

Portugal received two priority actions in the 2022 EIR: i) Ensure regional cooperation with Member States sharing the same marine (sub)region to address predominant pressures; and ii) Implement the recommendations made by the Commission in the 2022 for MSFD legal reporting. It is not possible to evaluate these priority actions currently as relevant data has not yet been evaluated.

2025 priority action:

- Report its updates on the assessment of the state of its marine waters, its targets, and its determinations of GES⁽⁶⁷⁾ 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) 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'),

and Commission Decision (EU) 2017/848 (OJ C, C/2024/2078, 11.3.2024), <http://data.europa.eu/eli/C/2024/2078/oj>.

⁽⁶⁶⁾ 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) (OJ C 165, 10.5.2023, p.1), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52023XC0510%2801%29>.

⁽⁶⁷⁾ In accordance with Article 17 of Directive 2008/56/EC.

which is regularly updated ⁽⁶⁸⁾.

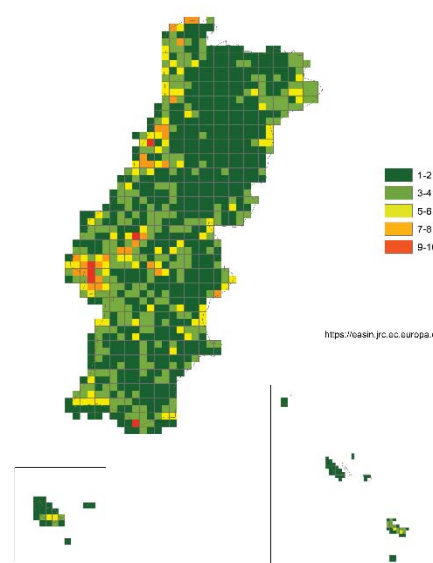
The IAS Regulation ⁽⁶⁹⁾ currently lists 88 species subject to restrictions on keeping, importing, selling, breeding, growing and releasing into the environment. Member States are required to take measures to (i) prevent the introduction of IAS, (ii) ensure early detection and rapid eradication of IAS and (iii) manage species that are already widespread on their territory.

The third update of the EU list entered into force on 2 August 2022. The fourth update is in preparation. The BDS further aims to decrease by 50 % the number of Red List species threatened by IAS. 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 ⁽⁷⁰⁾. More recent studies have put this cost at USD 28 billion per year in the EU, increasing to USD 148.2 billion by 2040 ⁽⁷¹⁾, and at USD 423 billion annually at the global level ⁽⁷²⁾.

The total number of IAS of EU concern in the country is 39. This includes 24 species recorded in the previous EIR (2021) and 15 new additions. Of these additions, 7 were already on the EU concern list in 2021, and 8 were added later under Commission Implementing Regulation (EU) 2022/1203. The spread of IAS in Portugal can be seen in Figure 15.

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



As explained in the 2022 EIR, an infringement procedure was launched against Portugal for failing to establish and implement either a single action plan or a set of action plans fulfilling the requirements specified in Article 13 of the IAS Regulation by 13 July 2019 and to transmit it/them to the Commission without delay. Portugal has carried out the necessary actions and this case has been closed.

2025 priority action

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

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.

⁽⁶⁸⁾ Commission Implementing Regulation (EU) 2016/1141 of 13 July 2016 adopting a list of invasive alien species of Union concern pursuant to Regulation (EU) No 1143/2014 of the European Parliament and of the Council (OJ L 189, 14.7.2016, p. 4), as amended by Commission Implementing Regulations (EU) 2017/1263, (EU) 2019/1262 and (EU) 2022/1203, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02016R1141-20220802&from=EN>.

⁽⁶⁹⁾ 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), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014R1143>.

⁽⁷⁰⁾ 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.

⁽⁷¹⁾ 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.

⁽⁷²⁾ 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/summary-policy-makers-invasive-alien-species-assessment>.

Similarly, target 14 of the GBF ⁽⁷³⁾ 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 ⁽⁷⁴⁾

The amended Regulation (EU) 691/2011 on European environmental economic accounts introduces new requirements for Member States to report on the condition of ecosystems including urban ecosystems, cropland, grassland, forest and woodland, 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 ⁽⁷⁵⁾. These platforms and communities are key tools for promoting and facilitating natural capital assessments among businesses and financial services providers.

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

Portugal has carried out a regional ecosystem assessment in Alentejo, but upscaling it to national level is still lacking and a comprehensive approach is needed.

Ecosystem assessment has been extended to 5 of the outermost EU regions (including Azores) and 10 overseas territories.

Back in 2007, the Portuguese Presidency of the Council of the European Union had taken the initiative to hold the first EU Business and Biodiversity conference.

In the 2022 EIR Portugal was given the following priority actions: (i) continue to support the mapping and assessment of ecosystems and their services and the development of ecosystem accounting through appropriate indicators for integrating information on ecosystem extent, ecosystem condition and ecosystem services into national accounts; and (ii) continue supporting the development of national business and biodiversity platforms, including natural capital accounting systems to monitor and value the impact of business on biodiversity.

The first priority action cannot be assessed due to the lack of data. For the second, some progress has been made since Portugal now has an active network member of the EU Business & Biodiversity Platform.

⁽⁷³⁾ [Decision 15/4](https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf) adopted by the Conference of the Parties to the Convention on Biological Diversity: Kunming–Montreal global biodiversity framework (<https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>).

⁽⁷⁴⁾ European Commission: Joint Research Centre and EEA, *EU Ecosystem Assessment – Summary for policymakers*, Publications Office of the European Union, Luxembourg, 2021, <https://op.europa.eu/en/publication-detail/-/publication/81ff1498-b91d-11eb-8aca-01aa75ed71a1/language-en>.

[/publication/81ff1498-b91d-11eb-8aca-01aa75ed71a1/language-en](https://green-business.ec.europa.eu/business-and-biodiversity_en).

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

3. Zero pollution

Clean air

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

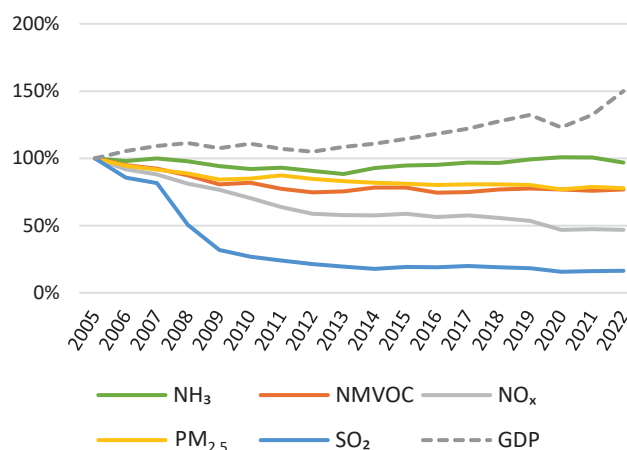
The EU has developed a comprehensive suite of air quality policies⁽⁷⁶⁾. These set health-based EU air quality standards⁽⁷⁷⁾ and stipulate Member States' national emission reduction commitments⁽⁷⁸⁾ for several air pollutants.

On air pollution, Portugal presents a mixed picture. While emissions of several air pollutants have fallen in recent decades, air quality in Portugal continues to give cause for concern in some parts of its territory, mainly with regard to nitrogen dioxide (NO₂). In particular, private transport exacerbates problems with air quality and traffic congestion in the major metropolitan areas in Portugal (Lisbon, Porto, Braga), leading to health and economic costs.

The latest available annual estimates (for 2022) from the EEA⁽⁷⁹⁾ for Portugal attribute 3 600 deaths each year (or 35 400 years of life lost (YLL)) to fine particulate matter (PM_{2.5})⁽⁸⁰⁾; 710 deaths each year (or 6 900 YLL) to (NO₂)⁽⁸¹⁾; and 1 400 deaths each year (or 13 900 YLL) to ozone⁽⁸²⁾.

Emissions of several air pollutants have decreased significantly in Portugal since 2005, while GDP growth has continued (see Figures 16 and 17). According to the inventories submitted under Article 10(2) of the National Emission reduction Commitments (NEC) Directive⁽⁸³⁾ in 2024, Portugal met its emission reduction commitments for 2020–2029 for the air pollutants nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOCs), sulphur dioxide (SO₂) and PM_{2.5}, and it did not meet them for ammonia (NH₃). According to the latest projections submitted under Article 10(2) of the NEC Directive, Portugal projects that it will meet its emission reduction commitments for 2030 onwards for NO_x, NMVOCs, SO₂ and NH₃, but not for PM_{2.5}.

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



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

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

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

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

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

⁽⁸⁰⁾ Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM₁₀ refers to particles with a diameter of 10 µm or less. PM_{2.5}

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

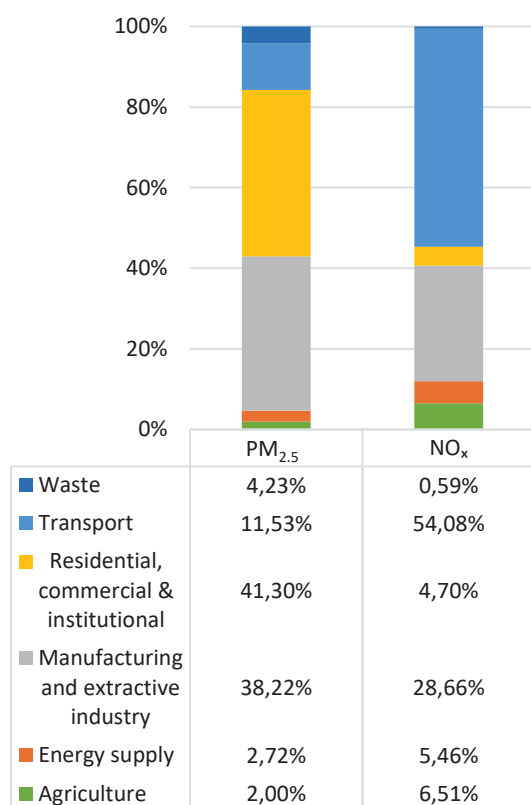
⁽⁸¹⁾ NO₂ pertains to a group of gases called NO_x, which also includes nitrogen monoxide. NO_x is emitted during fuel combustion, for example from industrial facilities and the road transport sector.

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

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

Portugal submitted its first national air pollution control programme (NAPCP) to the Commission on 1 April 2019. An update was due four years after that. Portugal also has to update its policies and measures to reduce air emissions.

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



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

In 2023, exceedances above the limit values set by the Ambient Air Quality Directive ⁽⁸⁴⁾ were registered for NO₂ in two air quality zones ⁽⁸⁵⁾ in Portugal. Furthermore, in two air quality zones, the target values for ozone concentrations were also exceeded ⁽⁸⁶⁾.

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, including Portugal. The Court of Justice of the EU delivered a judgment in 2023 over exceedances of NO₂ limit values (C-220/22; *Commission v Portugal*) confirming non-compliance with Directive 2008/50/EC.

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

The aim is that appropriate measures are put in place to bring all air quality zones into compliance. This case is still open, and the Commission is assessing the measures adopted by Portugal to comply with the ruling. Infringement procedures have also been opened for Member States not meeting the emission reduction commitments for 2020–2029, including for Portugal for NH₃.

Portugal has not yet ratified the Persistent Organic Pollutants (POPs) Protocol under the United Nations Economic Commission for Europe Air Convention.

In the 2022 EIR, Portugal received three priority actions. The first was to further reduce emissions in the context of the NAPCP. Portugal has not progressed on this, as the latest reported data show continued non-compliance with the 2020–2029 emission reduction commitment for NH₃ and also project non-compliance with emission reduction commitments for PM_{2.5} for 2030 onwards. The second priority action was to ensure full compliance with EU air quality standards and maintain downward emission trends. Based on the latest data, Portugal has made some progress in this regard. However, exceedances of limit values and target values remain for NO₂ and ozone. Since 2019, downward emission trends have been reported for all main air pollutants, except for NMVOCs, which have stayed constant. This situation requires further action. The third priority action received by Portugal was to ratify the POPs Protocol. Portugal has made some progress but still has not ratified protocol.

2025 priority actions

- As part of the NAPCP, take action towards reducing emissions of air pollutants.
- Ensure full compliance with the current AAQD standards, also in light of future stricter requirements under the revised AAQD.
- Accelerate the ratification of relevant international conventions and protocols.

Industrial emissions

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

- protect air, water and soil and to prevent harmful effects on human health and the environment;
- prevent and manage waste;
- improve energy and resource efficiency;
- clean up contaminated sites.

The cornerstone of the policy is the Industrial Emissions

⁽⁸⁵⁾ Entre Douro e Minho and Área Metropolitana de Lisboa Norte.

⁽⁸⁶⁾ EEA, Eionet Central Data Repository (<https://cdr.eionet.europa.eu/>).

Directive (IED), which was revised in 2024 ⁽⁸⁷⁾. 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.

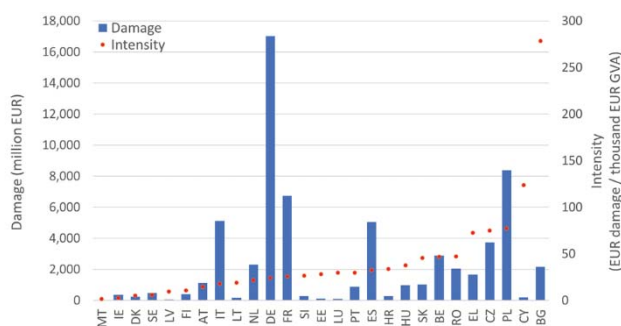
The overview of industrial activities regulated by the IED below is based on data reported to the EU Registry in 2022 ⁽⁸⁸⁾.

In Portugal, around 800 industrial installations are required to have a permit based on the IED.

The industrial sectors in Portugal with the most IED installations in 2018 were intensive rearing of poultry and pigs (39 %), waste management (14 %), food and drink production (13 %), surface treatment of metals (11 %) and mineral production (5 %).

Figure 18 shows the damage to health and the environment due to the main industrial air pollutants. As this depends, among other factors, on 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 Portugal has the 15th highest level of damage in the EU, it ranks 11th for its emissions intensity, above the EU average of EUR 27.5 per EUR 1 000 GVA. The main industrial contributors to emissions to air ⁽⁸⁹⁾ are the energy sector and the mineral industry for NO_x emissions, the waste management sector and 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



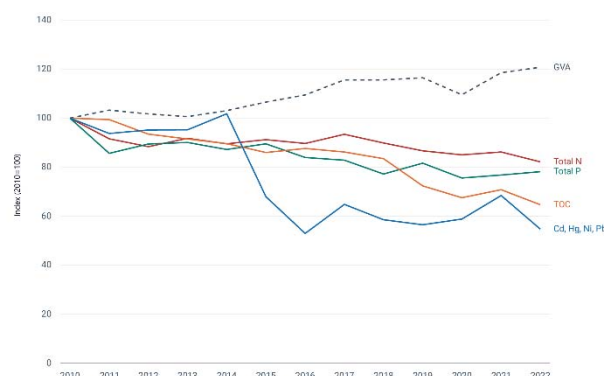
Source: EEA, 'Industrial pollution intensity indicators – EU large industry air pollution damage costs intensity', European Industrial Emissions

⁽⁸⁷⁾ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control) (OJ L 334, 17.12.2010, p. 17), as amended by Directive (EU) 2024/1785 of the European Parliament and of the Council of 24 April 2024, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02010L0075-20240804&qid=1725983863299>.

Portal, 2024, <https://industry.eea.europa.eu/analyse/industrial-emissions-indicator>.

Overall, 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 industrial activity (expressed in GVA), which has increased over the same period, as shown in Figure 19.

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



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

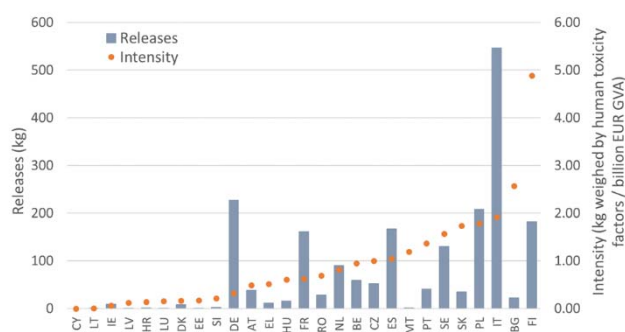
Source: EEA, 'Industrial pollutant releases to water in Europe', 30 May 2024, <https://www.eea.europa.eu/en/analysis/indicators/industrial-pollutant-releases-to-water>.

Concerning Portugal 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 its emissions intensity, namely the ratio of toxicity to industrial activity (expressed in GVA). Portugal has the 11th highest emissions of heavy metals to water in the EU and is in 6th position for emissions intensity (below the EU average intensity of 0.864 kg per EUR billion GVA).

⁽⁸⁸⁾ EEA, European Industrial Emissions Portal, <https://industry.eea.europa.eu/>, 2022 being the baseline year for all reports.

⁽⁸⁹⁾ European Environment Agency, LRTAP, Air pollutant emissions data viewer (Gothenburg Protocol, LRTAP Convention) 1990-2022, <https://www.eea.europa.eu/en/topics/in-depth/air-pollution/air-pollutant-emissions-data-viewer-1990-2022>.

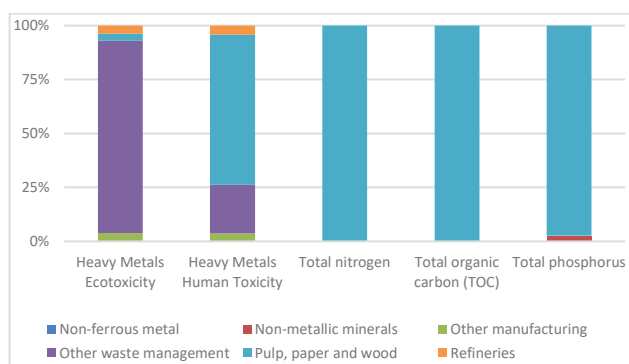
Figure 20: Industrial releases and intensity of heavy metal emissions to water per Member State, 2022



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

As shown in Figure 21, the main industrial contributors to emissions to water in Portugal are the pulp, paper and wood industry for heavy metals, nitrogen, total organic carbon and total phosphorus and the waste management sector for heavy metals.

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



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

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 the 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 will also introduce a right to compensation for people whose health has been harmed by such infringements.

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

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

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

In Portugal, considering the IED legislation and Recommendation 2001/331/EC of the European Parliament and of the Council of 4 April 2001 providing for minimum criteria for environmental inspections in the Member States, there is a risk assessment system, and the data on IED environmental inspection work are published through reports and information on the website of the General Inspection of Agriculture, Sea, Environment and Spatial Planning (*Inspecção-Geral da Agricultura, do Mar, do Ambiente e do Ordenamento do Território* (IGAMAOT), as well as annual activity inspections balance reports⁽⁹⁰⁾, which include enforcement campaigns or environmental projects to support compliance in specific sectors.

Portugal fulfils the mandatory requirements on environmental inspections, with a site visit taking place at least every 1–3 years, using risk-based criteria. During the inspection activities carried out, and in order to analyse and verify the environmental performance of the inspecting operators, the implementation of the BATs envisaged in the sectoral and horizontal BAT reference documents is evaluated.

When infringements are detected, a contravention procedure is instructed by IGAMAOT, follow its legal terms, and is presented to court when applicable. Administrative orders to correct infringements are issued, when necessary, and if the operator does not comply with its terms, participation in disobedience, a criminal offence, is notified to the Public Prosecution Service.

⁽⁹⁰⁾ These reports can be consulted on the IGAMAOT website (<https://www.igamaot.gov.pt/pt/espaco-publico/relatorios/inspecoes-ambientais-rei>).

In September 2022, the Commission an infringement procedure (2022/2085) against Portugal for non-conformity with the transposition of the IED; which led to a referral to the Court of Justice of the European Union in October 2024. The case is still pending before the Court.

In December 2024, the Commission decided to open an infringement procedure (2024/2224) against Portugal for non-conformity with the transposition of the Medium Combustion Plants Directive⁽⁹¹⁾. In the letter of formal notice, among other shortcomings, the Commission states that Portugal has not correctly transposed the Directive in relation to exemptions, monitoring of emissions and keeping obligations of the operator.

In the 2022 EIR, Portugal received a priority action to continue addressing emissions from the energy sector, especially from the Sines power plant, now closed. It is not possible to assess progress on this action because the last report on the European Industrial Emissions Portal was submitted on 22 August 2022.

2025 priority actions

- Reduce industrial air pollution damage and intensity.
- Reduce industrial releases to water and their intensity.
- Engage with industry and environmental NGOs to ensure proper contribution to and implementation of BAT conclusions and ensure timely update of permits following publication of BAT conclusions.
- Ensure effective public participation and access to justice in relation with the IED.

Major industrial accidents prevention – Seveso

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

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

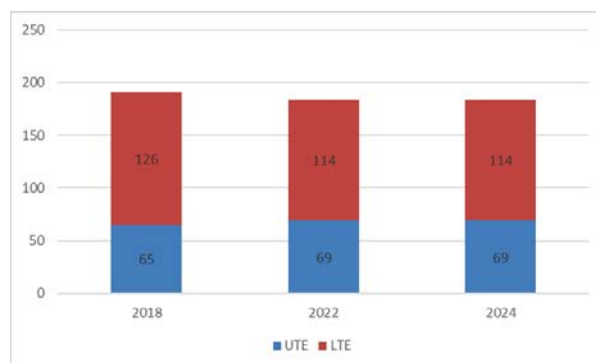
The cornerstone of the policy is Directive 2012/18/EU (the Seveso III Directive⁽⁹²⁾).

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⁽⁹³⁾ and the report by

Portugal on the implementation of the Seveso III Directive for 2019–2022⁽⁹⁴⁾.

In Portugal, in 2024, among the 183 Seveso establishments, 114 are categorised as lower-tier establishments and 69 as upper-tier establishments (UTEs), based on the quantity of hazardous substances likely to be present. UTEs are subject to more stringent requirements. The number of Seveso establishments is presented in Figure 22.

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



NB: LTE, lower-tier establishment.

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

Member States are required to draw up external emergency plans (EEPs). These 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 Portugal, in 2022, an EEP was required for all 69 UTEs. In the same year, 49 UTEs had an EEP and 8 of those had been tested over the last three years. A summary is shown in Figure 23.

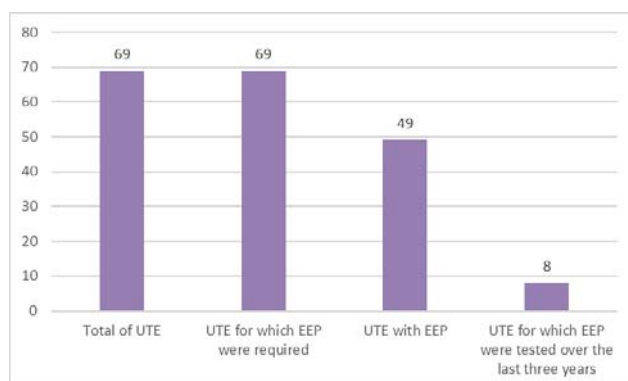
⁽⁹¹⁾ Directive (EU) 2015/2193 of the European Parliament and of the Council of 25 November 2015 on the limitation of emissions of certain pollutants into the air from medium combustion plants (OJ L 313, 28.11.2015, p. 1), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32015L2193>.

⁽⁹²⁾ Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2014 on the control of major-accident hazards

involving dangerous substances (OJ L 197, 24.7.2012, p.1), <https://eur-lex.europa.eu/eli/dir/2012/18/oj>.

⁽⁹³⁾ <https://espirs.jrc.ec.europa.eu/en/espirs/content>; data extracted in September 2024.

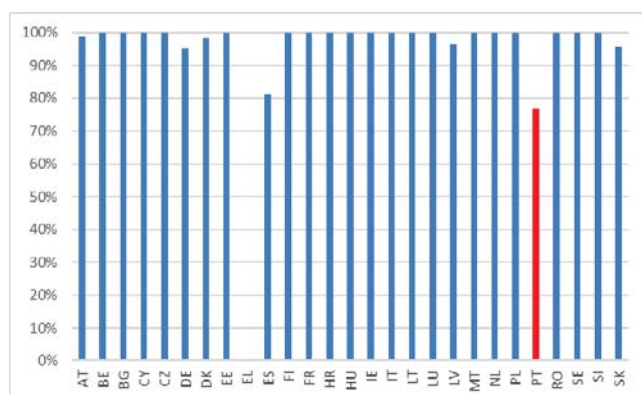
⁽⁹⁴⁾ As provided for by Article 21(2) of the Seveso III Directive.

Figure 23: Situation regarding EEPs in Portugal, 2022

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

The information for the public referred to in Annex V to the Seveso III Directive – especially about how the public concerned will be warned in the event of a major accident; the appropriate action to take in the event of a major accident; and the date of the last site visit – is permanently available for 77 % of the Seveso establishments in Portugal.

The shares of UTEs for which information on safety measures and requisite behaviours was actively made available to the public in 2022 in all Member States are presented in Figure 24. Providing this knowledge is an important provision of the Seveso III Directive, as the public's awareness of this information may ameliorate the consequences of a major industrial accident.

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

NB: No data available for Greece.

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

It should be noted that the Commission decided in December 2024 to open an infringement procedure (2024/2225) against Portugal for non-conformity with the transposition of the Seveso III Directive. In the letter of formal notice, among other shortcomings, the Commission states that Portugal has not correctly transposed the directive in relation to provisions concerning the scope, information to the public and emergency plans.

In 2022, Portugal received priority actions to strengthen control and enforcement to ensure compliance with the Seveso III Directive provisions, especially on EEPs. Data reported on the implementation of the directive for 2019–2022 in Portugal show that improvement is still needed in the number of EEPs established and tested over the last three years.

2025 priority actions

- Strengthen compliance with requirements on safety measures to prevent major accidents and ensure appropriate preparedness and response for UTEs, in particular as regards review, testing and update of EEPs; at intervals of no longer than three years.
- Ensure access to transparent and clear information towards citizens on risks and behaviour in case of accidents.

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).

In 2019, 10 % of dental treatments were still using dental amalgam, which represented a challenge for Portugal to phase out its use by 1 January 2025. However, measures should have been put in place to ensure a socially and economically sound phasing out, including adequate reimbursement for using alternatives to dental amalgam through the country's health insurance scheme and the training of dental practitioners. The Commission is monitoring whether the phasing out has taken place under the terms and conditions of the regulation. Portugal 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 ⁽⁹⁵⁾ 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 ⁽⁹⁶⁾.

In Portugal, environmental noise is estimated to cause at least around 90 cases of ischaemic heart disease annually ⁽⁹⁷⁾, some 40 000 people to suffer from disturbed sleep ⁽⁹⁸⁾.

Based on the latest set of information analysed, Portugal has completed its noise mapping of airports, while noise mapping of agglomerations, major roads and major railways remains incomplete.

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

There is an infringement procedure ongoing for Portugal related to a lack of reporting on the strategic noise maps and the adoption of noise action plans.

Portugal received two priority actions in the 2022 EIR to complete noise mapping and noise action plans. There has been no progress on the first priority action on noise mapping, as detailed above. Given that reporting under the most recent reporting cycle for noise action plans was due in early 2025, these have not been assessed. Therefore, these priority actions are maintained for the 2025 EIR.

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 freshwaters (including surface waters and groundwaters) be significantly reduced. Achieving, maintaining or enhancing a good status of water bodies as defined by the Water Framework Directive will ensure that EU citizens benefit from good-quality and safe drinking and bathing water. It will further ensure that the nutrient cycle (nitrogen and phosphorus) is managed in a more sustainable and resource-efficient way.

⁽⁹⁵⁾ Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise – Declaration by the Commission in the Conciliation Committee on the directive relating to the assessment and management of environmental noise (OJ L 189, 18.7.2002, p. 12), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32002L0049>.

⁽⁹⁶⁾ WHO, *Environmental Noise Guidelines for the European Region*, Copenhagen, 2018, <https://www.who.int/europe/publications/i/item/9789289053563>

⁽⁹⁷⁾ These figures are an estimation by the EEA based on (i) the data reported by Member States on noise exposure covered by Directive 2002/49/EC for the round of noise mapping of 2022; (ii)

European Topic Centre on Air Pollution, Transport, Noise and Industrial Pollution (ETC/ATNI), *Noise Indicators under the Environmental Noise Directive 2021: Methodology for estimating missing data*, Eionet report ETC/ATNI No 2021/06, Kjeller, 2021; and (iii) the methodology for health impact calculations in European Topic Centre on Air Pollution and Climate Change Mitigation (ETC/ACM), *Implications of environmental noise on health and wellbeing in Europe*, Eionet report ETC/ACM No 2018/10, Bilthoven, 2018, https://www.eionet.europa.eu/etcs/etc-atni/products/etc-atni-reports/eionet_rep_etcacm_2018_10_healthimplicationsnoise.

⁽⁹⁸⁾ More information on the adverse health effects of noise pollution is available at: <https://www.eea.europa.eu/themes/human/noise/noise-2>

Water Framework Directive

The Water Framework Directive (WFD)⁽⁹⁹⁾ is the cornerstone of the EU water policy in the 21st century⁽¹⁰⁰⁾. The WFD and other water-related directives⁽¹⁰¹⁾ 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 WFD establishes a procedural framework for reaching good surface water ecological and chemical status and good groundwater quantitative and chemical status. This implies monitoring and classification of all water bodies, 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 has reported its findings to the European Parliament and to the Council on 4 February 2025 for most of Member States⁽¹⁰²⁾.

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 risk hazard maps and the preliminary flood risk assessments drawn up during the second cycle (2016–2021).

Portugal did not submit the third RBMPs and second FRMPs by March 2022, as required under the Water Framework Directive and the Floods Directive. The Commission opened an infringement procedure for late reporting and decided to refer the case to the Court of Justice of the EU.

Portugal finally reported its third RBMPs and its second FRMPs by April 2024, and the infringement procedure was closed. However, as a result of this late reporting, the Commission has not been in a position to assess the plans and include such an assessment for Portugal in its report to the European Parliament and to the Council issued on 4 February 2025.

As a consequence, the EIR cannot be updated for Portugal and reference is made to the 2022 EIR for the latest state of play⁽¹⁰³⁾.

Drinking Water Directive

The recast Drinking Water Directive is now applicable, and Member States were required to transpose its provisions into their national legal systems by 12 January 2023. Since the entry into force of the recast directive, the Commission has adopted several delegated and implementing acts establishing (i) a watch list of substances and compounds of concern for drinking water⁽¹⁰⁴⁾; (ii) a methodology for measuring microplastics in drinking water⁽¹⁰⁵⁾; and (iii) an EU system for testing and approving materials that are allowed to be in contact with drinking water⁽¹⁰⁶⁾. Member States will have to take

⁽⁹⁹⁾ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060>.

⁽¹⁰⁰⁾ https://environment.ec.europa.eu/topics/water_en.

⁽¹⁰¹⁾ These include the Groundwater Directive (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32006L0118>), the Environmental Quality Standards Directive (<https://eur-lex.europa.eu/eli/dir/2008/105/oj>), the Floods Directive (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32007L0060>), the Bathing Water Directive (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32006L0007>), the Urban Wastewater Treatment Directive (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31991L0271>), the new Drinking Water Directive (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020L2184>), the Nitrates Directive (<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A31991L0676>), the Marine Strategy Framework Directive (<https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32008L0056>) and the IED (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32010L0075>).

⁽¹⁰²⁾ European Commission, 2025 https://webgate.ec.europa.eu/circabc-ewpp/ui/group/c04f478b-d4dc-44f9-a211-087c01165b2c/library/faada4be-9fc3-4a48-b972-f71e356019d5?p=1&n=10&sort=modified_DESC.

⁽¹⁰³⁾ https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=comnat%3ASWD_2022_0270_FIN.

⁽¹⁰⁴⁾ https://environment.ec.europa.eu/publications/implementing-decision-drinking-water-directive-watch-list_en.

⁽¹⁰⁵⁾ 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⁾ OJ L, 2024/365, 23.4.2024, http://data.europa.eu/eli/dec_impl/2024/365/oj; OJ L, 2024/367, 23.4.2024, http://data.europa.eu/eli/dec_impl/2024/367/oj; OJ L, 2024/369, 23.4.2024, http://data.europa.eu/eli/reg_del/2024/369/oj; OJ L, 2024/368, 23.4.2024, http://data.europa.eu/eli/dec_impl/2024/368/oj; OJ L, 2024/370, 23.4.2024, http://data.europa.eu/eli/reg_del/2024/370/oj; OJ L, 2024/371, 23.4.2024, http://data.europa.eu/eli/reg_del/2024/371/oj; see

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 Portugal does not give rise to concern ⁽¹⁰⁷⁾.

From January 2026, the European quality standards for per- and poly fluoroalkyl substances in drinking water will apply, ensuring harmonised Member State reporting of monitoring data on these substances 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 667 Portuguese bathing waters, 575 (86.2 %) were of excellent quality, 57 (8.5 %) were of good quality and 11 (1.6 %) were of sufficient quality (Figure 25). Only 3 bathing waters (0.4 %) were of poor quality and 21 were not qualified.

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-water-quality-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, 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 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 Portugal's RBMPs has identified nutrients from agriculture as an important pressure on groundwater / surface water, and the impact on waterbody status is one of the main factors in Portugal not meeting the Water Framework Directive objectives.

2025 priority action

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

Urban Waste Water Treatment Directive

The Urban Waste Water 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 wastewaters generated in urban areas, also known as agglomerations, of more than 10 000 people, before they are discharged into waters and their catchments that are sensitive to nitrogen and/or phosphorus (i.e. eutrophic or tending to become eutrophic).

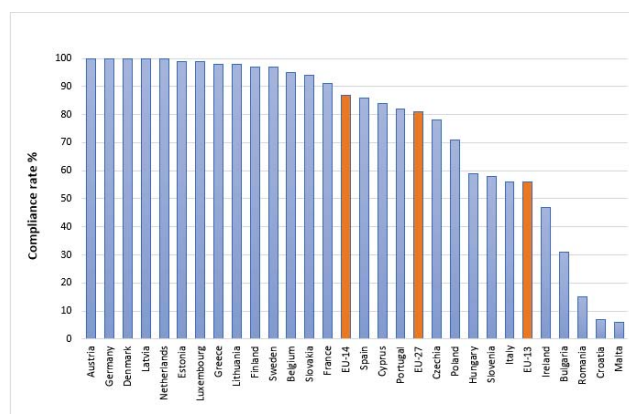
Overall, in Portugal, the compliance rate was 82 % in 2020 (Figure 26). Some 56 agglomerations, generating 2 367 950 population-equivalent of urban wastewater, did not comply with the requirements of the Directive.

the Commission web page on all six delegated acts for more information
(https://environment.ec.europa.eu/publications/delegated-acts-drinking-water-directive_en).

⁽¹⁰⁷⁾ In summary, the compliance for all parameter groups in Portugal was at least 99.49% in 2017, 99.68% in 2018 and 99.24% in 2019.

⁽¹⁰⁸⁾ <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1561542776070&uri=CELEX:01991L0676-20081211>.

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



Source: European Commission, [12th technical assessment of UWWTD implementation - Publications Office of the EU](#)

Portugal is the only EU Member State that has identified 'less sensitive' areas⁽¹⁰⁹⁾, or areas in principle not adversely affected by wastewater discharges due to their intrinsic features⁽¹¹⁰⁾.

Despite the improvement in compliance over the years, for which the availability of EU funding has been fundamental, Portugal has experienced difficulties in properly implementing the UWWTD. This incomplete implementation has forced the Commission to take legal action that on some occasions has led to rulings of the Court of Justice of the EU, including Portugal having to pay a fine for one case that is already resolved.

The Commission has currently three infringement procedures open against Portugal for poor application of the UWWTD. In one case, following a ruling of the Court of Justice, only the agglomeration of Funchal is pending, although compliance is likely to be achieved shortly. The other two cases concern horizontal infringement procedures covering a certain number of agglomerations in breach of the UWWTD.

Therefore, it is essential that Portugal takes the necessary measures and implement projects without delay to fully comply with the requirements of the UWWTD, taking advantage of the available EU funding, that is, the European Regional Development Fund (ERDF), the Cohesion Fund and the Recovery and Resilience Facility (RRF).

This is all the more important as the Directive has been

revised and strengthened in 2024. The recast Directive 2024/3019 builds on the current *acquis* strengthening existing treatment standards and establishing a new additional treatment for micropollutants in urban wastewater. Other new requirements relate to moving towards energy neutrality in the sector, establishing an extended producer responsibility scheme to ensure sustainable financing of micropollutant treatment by the most polluting industries and ensuring access to sanitation facilities, especially for vulnerable and marginalised groups. Portugal has until 31 July 2027 to transpose the new Directive into its national legal system.

Portugal adopted in February 2024 the PENSAARP 2030, a national strategic plan for water supply, wastewater and pluvial water management.

The 2022 EIR included as a priority action the need to complete the implementation of the UWWTD for all agglomerations by building up the necessary infrastructure and by developing the potential for water reuse. Despite some progress, Portugal is not fully implementing the UWWTD, and further efforts are needed.

2025 priority action

- Take the necessary measures to ensure full implementation of the current Urban Wastewater Treatment Directive, taking into account the new requirements of the recast Directive.

Certain areas of Portugal suffer from water scarcity. The water exploitation index plus (WEI+), a measure of how much water is being used compared with the total renewable freshwater resources available for a given territory and period, shows that, especially in summer months, the country's total water consumption exceeds its renewable freshwater resources⁽¹¹¹⁾. The highest WEI+ value (39) was reached in the third quarter of 2022 and the second highest value (36) in the third quarter of 2019⁽¹¹²⁾. This seasonal index at national level does not reflect the situation at river basin level where more acute water stress can be recorded⁽¹¹³⁾.

The challenges faced by Portugal because of climate change, with water availability falling by around 20 % in the last 30 years and set to worsen in the future, and rising air temperatures, highlight a new reality for which it is critical to find the best solutions for adaptation.

⁽¹⁰⁹⁾ For example, open bays, estuaries and other coastal waters with a good rate of water exchange.

⁽¹¹⁰⁾ Portugal reports regularly to the Commission on its areas identified as less sensitive areas: Cabo da Roca / Estoril and Madeira.

⁽¹¹¹⁾ Values above 20% are generally considered to be a sign of water scarcity, while values equal to or greater than 40% indicate situations of severe water scarcity.

⁽¹¹²⁾ See the last data from the European Environment Agency (EEA) <https://www.eea.europa.eu/en/analysis/indicators/use-of-freshwater-resources-in-europe-1>

⁽¹¹³⁾ EEA, Seasonal water scarcity conditions for European sub-units for the four quarters of 2022, as measured by WEI+. <https://www.eea.europa.eu/en/analysis/indicators/use-of-freshwater-resources-in-europe-1/seasonal-water-scarcity-conditions>

It is important to note that, in the framework of the 2024 European Semester ⁽¹¹⁴⁾, Portugal has received a country-specific recommendation (CSR-3) on water management and adaptation to climate change:

- Improve water management to strengthen adaptation to the effects of climate change and ensure long-term economic and environmental resilience, by putting in place a strategy for integrated and sustainable water management, developing its governance structure, promoting investments in wastewater collection and treatment, leaks reduction and water monitoring, while developing nature-based solutions and water body rehabilitation, and improving water efficiency and water reuse.

Therefore, Portugal should take the necessary measures to address this comprehensive country-specific recommendation.

In this sense, the Portuguese government has presented in March 2025 a new far-reaching national strategy on water (“Water that Unites”) that aims at improving the sustainable management of water resources throughout the country by promoting integrated water governance, water efficiency and climate resilience. A long list of water investments is also envisaged.

Several measures are under way to contribute to greater resilience. An example of this is the Algarve regional water efficiency plan. This plan was presented in June 2024, during an EU Green Week partner event dedicated to water resilience in the Algarve region.

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 ⁽¹¹⁵⁾, 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 ⁽¹¹⁶⁾ 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 ⁽¹¹⁷⁾ on the implementation and enforcement of these regulations ⁽¹¹⁸⁾. It is apparent from the Commission’s report that there are still many disparities in the implementation of the REACH and CLP Regulations, notably in the area of law enforcement. Recorded compliance levels in Member States, generally quite stable over time, appear to be getting slightly worse. This may be because (i) enforcement authorities are becoming more effective in detecting non-compliant products/companies; and (ii) more non-compliant products are being placed on the EU market.

⁽¹¹⁴⁾ European Commission, Recommendation for a Council recommendation on the economic, social, employment, structural and budgetary policies of Portugal, COM(2024) 622 final of 19 June 2024, https://commission.europa.eu/document/download/97267980-f10e-4587-984f-9d70e768b8bc_en?filename=com_2024_622_1_en.pdf. See CSR-3 and Recital 26.

⁽¹¹⁵⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Chemicals strategy for sustainability: Towards a toxic-free environment, COM(2020) 667 final of 14 October 2020, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2020%3A667%3AFIN>; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1), https://publications.europa.eu/resource/cellar/c6b6a31d-8359-11ee-99ba-01aa75ed71a1.0004.02/DOC_2.

⁽¹¹⁶⁾ Namely, Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning

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

⁽¹¹⁷⁾ European Commission, *Technical assistance to review the existing Member States reporting questionnaire under Articles 117(1) of REACH and 46(2) of CLP – Final report*, Publications Office of the European Union, Luxembourg, 2020, <https://circabc.europa.eu/ui/group/8ee3c69a-bccb-4f2d-89ca-277e35de7c63/library/a4abce8c-8425-455f-b7e6-0ead917bde6b/details>.

⁽¹¹⁸⁾ In line with Article 117(1) of the REACH Regulation and Article 46(2) of the CLP Regulation.

In August 2021, the Commission published a measurable assessment of the enforcement ⁽¹¹⁹⁾ 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 ⁽¹²⁰⁾.

In 2023, new hazard classes were added to the CLP Regulation, and the revision of the regulation was tabled (published on 20 November 2024) ⁽¹²¹⁾. 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 ⁽¹²²⁾. The Commission is working on the delegated acts to include these substances in Annex I to the POPs Regulation by 2025 at the latest.

Portugal has various national enforcement authorities for the REACH and CLP Regulations, depending on the scope:

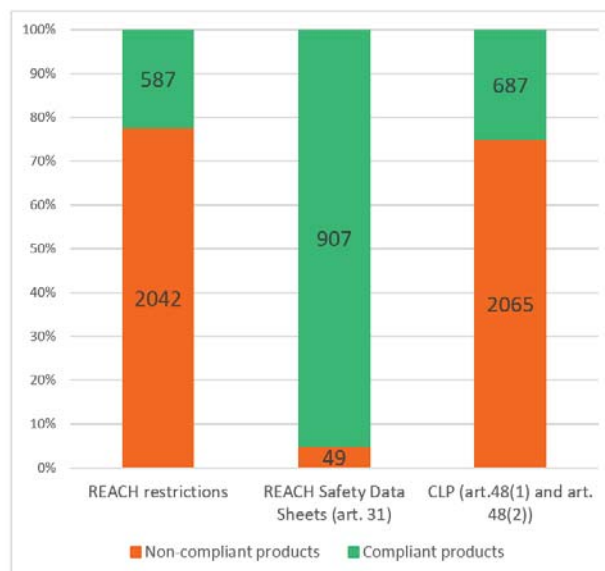
- Igamaot;
- Authority for Economic and Food Safety;
- Tax and Customs Authority;
- Regional Inspectorate for Environment of Azores;
- Regional Directorate for Environment and Climate Change, Institute of Health Administration, and Regional Authority for Economic Activities of Madeira.

A Member States reporting exercise in accordance with Article 117 of the REACH Regulation and Article 46 of the CLP Regulation is conducted every five years. The results of the forthcoming exercise are expected in 2025, hence the absence of new nationally specific data on enforcement since 2022.

In the 2022 EIR, Portugal had devised and partially implemented both REACH and CLP Regulation enforcement strategies. Only 11 staff members were allocated to REACH and CLP Regulation enforcement, under IGAMAOT).

In 2020, Portugal participated in an EU-coordinated enforcement project on products sold online, called the REACH-EN-FORCE (REF)-8 project ⁽¹²³⁾ (see Figure 27). The project report was adopted in November 2021, so its findings could not be taken into account in the 2022 EIR.

Figure 27: Compliance of imported products – results of the REF-8 project (%)



A risk assessment approach was used for the targeting of control measures in order to maximise the chances of finding non-compliant products. Therefore, the non-compliance rates presented in Figure 27 cannot be considered average for products in the EU. However, the proportion of non-compliance cases found in the REF-8 project are of concern.

⁽¹¹⁹⁾ European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, *REACH and CLP Enforcement: EU-level enforcement indicators*, Publications Office of the European Union, Luxembourg, 2021, <https://op.europa.eu/en/publication-detail/-/publication/e5c3e461-0f85-11ec-9151-01aa75ed71a1/>.

⁽¹²⁰⁾ For example, substances in tattoo inks and permanent make-up, *N,N*-dimethylformamide, formaldehyde (and formaldehyde releasers), lead in PVC (polyvinyl chloride), siloxanes (D4, D5, D6) and, finally, microplastics.

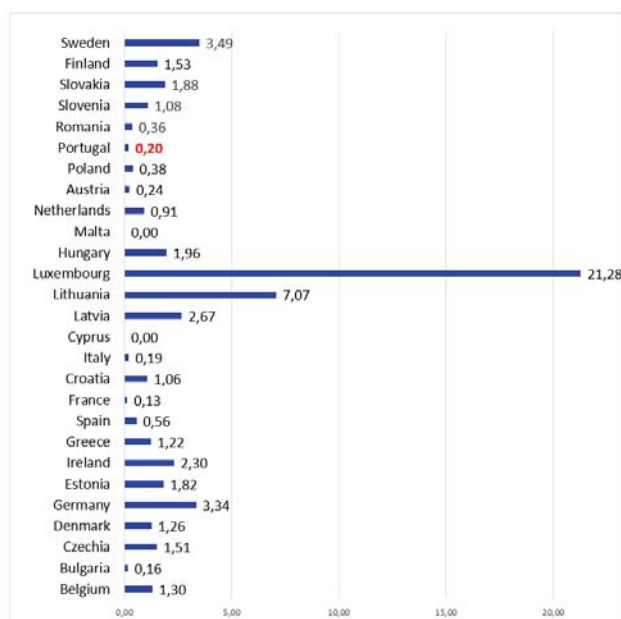
⁽¹²¹⁾ Regulation (EU) 2024/2865 of the European Parliament and of the Council of 23 October 2024 amending Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances

and mixtures, OJ L, 2024/2865, 20.11.2024, p.1 ([Regulation - EU - 2024/2865 - EN - EUR-Lex](#)).

⁽¹²²⁾ For example, 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.

⁽¹²³⁾ European Chemical Agency, *REF-8 project report on enforcement of the CLP, REACH and BPR duties related to substances, mixtures and articles sold online*, Helsinki, 2021, p. 20, https://echa.europa.eu/documents/10162/17088/project_report_ref-8_en.pdf/ccf2c453-da0e-c185-908e-3a0343b25802?t=1638885422475.

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



Portugal participated to a small extent in the REF-8 project (Figure 28). Online sales have been proven to correspond to higher non-compliance rates in checks performed across the EU, in particular in relation to imported products.

In the 2022 EIR, Portugal received a priority action related to the upgrading of its administrative capacities for implementing and enforcing a policy of zero tolerance of instances of non-compliance. In the absence of reporting since 2022, this priority action remains valid in 2025, partly because of the experience with the REF-8 project.

2025 priority actions

- 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 REF projects.
- Increase customs controls and controls of products sold online with regard to compliance with chemicals legislations.

4. Climate action

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

Over the last three decades, since 1990, the EU has achieved steady decreases in its emissions, reaching a running total in 2022 of –32.5 % ⁽¹²⁴⁾. 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 Hungary decreased by 42 %, making it one of the countries with an above-average decrease.

The 'Fit for 55' legislative package reflects the need to speed up the green transition. It includes: (i) strengthening and expanding the EU emissions trading system (ETS), with the creation of a new, second, ETS for transport and buildings together with a dedicated Social Climate Fund to help citizens during the transition; (ii) increasing targets

under the Effort Sharing Regulation; and (iii) a revised Regulation for Land Use, Land Use Change and Forestry ⁽¹²⁵⁾. The package has been fully adopted, and the Member States have been implementing the legislation.

The key strategic document at country level is the National Energy and Climate Plan (NECP) ⁽¹²⁶⁾. Portugal submitted its updated plan in December 2024, after the deadline set ⁽¹²⁷⁾. The European Commission assessed the final plan and the extent to which Portugal has followed the recommendations for the draft version.

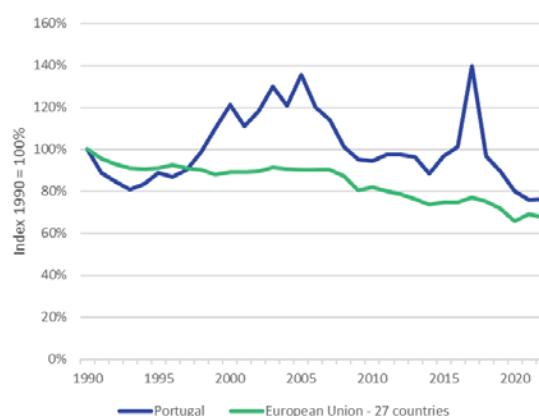
The findings from the assessment are:

- Emissions under the Effort Sharing Regulation will decrease by 39% in 2030 compared to 2005, and Portugal will meet its target of 29%.
- Portugal is in line with its LULUCF target for the share of renewable energy and final energy consumption target.

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

At the end of 2024, the Portuguese Government created the Agency for Climate to improve the coordination and efficiency of climate action, including the management of financial instruments ⁽¹²⁸⁾.

Figure 29: Total greenhouse gas emissions (excluding international aviation) in Portugal, 1990–2022



⁽¹²⁴⁾ EU net domestic emissions, including the land use, land-use change and forestry (LULUCF) sector and excluding international aviation.

⁽¹²⁵⁾ A full overview of the Fit for 55 package is available at https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/delivering-european-green-deal/fit-55-delivering-proposals_en.

⁽¹²⁶⁾ European Commission, 'National energy and climate plans', <https://commission.europa.eu/energy-climate-change->

[environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en](https://commission.europa.eu/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en).

⁽¹²⁷⁾ Article 14 of Regulation 2018/1999 on the Governance of the Energy Union and Climate Action.

⁽¹²⁸⁾ Decreto-Lei 122/2024, 31.12.24 <https://diariodarepublica.pt/dr/detalhe/decreto-lei/122-2024-901661921>.

The EU emissions trading system

The EU ETS is the key tool for reducing GHG emissions cost-effectively across all Member States. It is the world's biggest carbon market, covering around 40 % of the EU's total GHG emissions from electricity and heat generation, the manufacturing industry, aviation within Europe ⁽¹²⁹⁾ 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 CO₂ 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 63 % from 2005 to 2023.

In 2023, power generation was responsible for 32 % of Portugal's ETS emissions, a much lower share than in the EU overall (57 %) ⁽¹³⁰⁾. Of the total emissions from all industry sectors, cement and lime production emitted 43 %, refineries 27 %, and 'other' industries 27 %. In 2023, ETS emissions in Portugal were almost half as high as in 2013. The reduction of ETS emissions has largely been driven by the power sector, where greenhouse gas emissions have declined by 69 % since 2013. Industrial emissions from cement, lime or refineries had only modest emission reductions over the previous decade.

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 ⁽¹³¹⁾. Member States should have notified full transposition the provisions of the revised EU ETS directive related to the new ETS2 into national law by 30 June 2024. Portugal did not communicate full transposition into national law by this deadline. The Commission therefore opened an infringement procedure against Portugal on 25 July 2024, by sending a letter of formal notice for failing to fully transpose the provisions into national law. In the absence of a satisfactory response, the Commission may decide to issue a reasoned opinion.

The Commission also opened an infringement procedure against Portugal on 25 January 2024, by sending a letter of formal notice for failing to fully transpose previous revisions of ETS Directives ⁽¹³²⁾ into national law. Portugal

has since notified partial transposition of either one or both revisions to the Commission. In the absence of a complete transposition, the Commission may decide to issue a reasoned opinion.

Effort sharing

The Effort Sharing Regulation (ESR) ⁽¹³³⁾ 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 to 2005 levels. This overall target for the EU translates to binding national emission reduction targets for each Member State. Portugal's target is –28.7 %.

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 Portugal is on track to achieve its 2030 ESR target. Nevertheless, excess of emissions in the LULUCF sector automatically reduces ESR annual emission limits in 2021–2025 ⁽¹³⁴⁾. Based on available data, Portugal may struggle to stay within these limits each year in this period.

Projected emissions are 13.3 percentage points above its 2030 target.

The largest contributor is the domestic transport sector, which accounted for 42 % of all effort sharing emissions in 2022. The transition to sustainable transport is slowly gaining grounds in Portugal. At 1.2 % of the passenger vehicle fleet in 2022, the uptake of electric cars is close to the EU average. The country's 7 200 publicly accessible charging points provide a charging point for every 18 e-vehicles, far below the EU average of 1:10.

The buildings sector is a significant concern for Portugal as well. Even though emissions decreased by 41 % from 2005, Portuguese building stock's energy performance is poor, with most public energy efficiency schemes being one-off measures, not always taking a building's overall energy performance into account. Portugal needs to do a

⁽¹²⁹⁾ Flights between the EU Member States including departing flights to Norway, Iceland, Switzerland, and the United Kingdom.

⁽¹³⁰⁾ EEA. EU Emissions Trading System (ETS) data viewer. [EU Emissions Trading System \(ETS\) data viewer | European Environment Agency's home page](https://www.eea.europa.eu/en/ets-data-viewer)

⁽¹³¹⁾ Directive (EU) 2023/959 (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2023.130.01.0134.01.ENG).

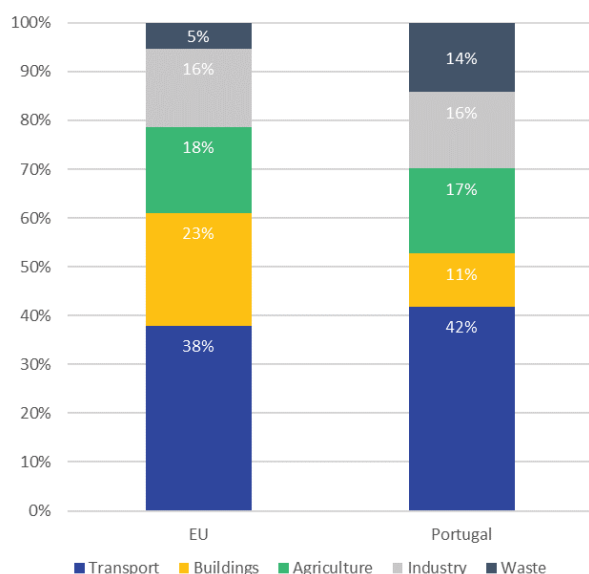
⁽¹³²⁾ [Directive - 2023/959 - EN - EUR-Lex](#) and [Directive - 2023/958 - EN - EUR-Lex](#).

⁽¹³³⁾ Regulation (EU) 2018/842 (<https://eur-lex.europa.eu/eli/reg/2018/842>).

⁽¹³⁴⁾ See article 9(2) of Effort Sharing Regulation.

lot more to make a meaningful contribution to reaching its long-term renovation strategy target.

Figure 30: Effort sharing emissions by sector, 2022



Land use, land use change and forestry

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

Portugal's forests are responsible for a major share of net carbon removals and seem to have partially recovered from the decreased natural carbon sink over 2009–2017 caused by severe forest fires, among other phenomena.

Portugal's target in 2030 is to enhance land removals by additional –1.0 Mt of CO₂ equivalent compared to the yearly average of the period 2016–2018. The latest available projections show a surplus to target of –11.9 Mt of CO₂ equivalent in 2030. Therefore, Portugal is on track to meet its 2030 target.

Adaptation to climate change

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

Portugal is a hotspot of climate risks, including the regions most affected by climate change – Southern Europe, low-lying coastal regions and outermost regions (Azores and Madeira ⁽¹³⁵⁾).

Portugal faces water management challenges due to climate change and has a wide climate protection gap against wildfires. Portugal remains vulnerable to climate change-related extreme events such as floods, coastal erosion, droughts and heatwaves, with a moderate climate protection gap overall. Water management continues to be a major challenge, as Portugal is among the most drought-affected EU countries.

Portugal adopted its climate adaptation law in 2021 and has national, regional and sectoral adaptation plans ⁽¹³⁶⁾. It finalised a national roadmap for adaptation until 2100 that assesses the impacts of global warming and outlines the corresponding adaptation needs and will inform the review its adaptation strategy and spatial planning.

Portugal received five priority actions regarding climate action in the 2022 EIR.

There is still little visible progress in decarbonisation of transport sector and in renovation of buildings stock. Progress in the uptake of renewables and adaptation measures have been made, but more action is still needed, in particular as regards water management.

In 2023, the application for classifying the 15 GWh lithium battery factory construction project in Sines as a Project of National Interest was submitted to the AICEP ⁽¹³⁷⁾. Two lithium mining projects and at least one unit for lithium conversion are currently in progress. Stellantis Mangualde Plant should produce fully battery electric compact vans for Citroën, Fiat, Opel and Peugeot by 2025.

2025 priority actions

- Implement all policies and measures that are needed to achieve targets laid down in the Effort Sharing Regulation (ESR) and the Land Use, 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) ⁽¹³⁸⁾.

⁽¹³⁵⁾ EEA, *European Climate Risk Assessment*, EEA Report 01/2024, Publications Office of the European Union, Luxembourg, 2024, <https://climate-adapt.eea.europa.eu/en/eu-adaptation-policy/key-eu-actions/european-climate-risk-assessment>.

⁽¹³⁶⁾ EEA, *Climate-ADAPT country profiles*. [Country Profiles](https://climate-adapt.eea.europa.eu/en/country-profiles)

⁽¹³⁷⁾ AICEP - Portuguese Trade & Investment Agency is the public body that promotes the attraction of productive inward investment and

the internationalization of the Portuguese economy, fostering export growth and the international expansion of Portuguese companies.

⁽¹³⁸⁾ European Commission, *National energy and climate plans*, https://commission.europa.eu/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en

Part II: Enabling framework – implementation tools

5. Financing

The EU budget supports climate investment in Portugal with significant amounts in 2021–2027, with revenues from the EU ETS also feeding into the national budget. During 2020–2022, Portugal's revenues from auctioning reached EUR 1 443 million in total, with almost 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 around EUR 6.5 billion per year in Portugal.

These four environmental areas currently receive total funding of nearly EUR 5 billion per year; thus, there is a gap of EUR 1.6 billion per year.

Of the annual environmental investment gap, EUR 0.8 billion concerns biodiversity and ecosystems, around EUR 0.4 billion concerns water and around EUR 0.5 billion the circular economy objective.

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 ERDF), the RRF EUR 275.7 billion, and CAP EUR 145.9 billion⁽¹³⁹⁾.

In Portugal, the EU cohesion policy (considering EU contribution amounts) provides EUR 7.3 billion for climate action in 2021–2027 (with around half of this via the ERDF), with a further EUR 160.4 million from the European Maritime, Fisheries and Aquaculture Fund (EMFAF)⁽¹⁴⁰⁾.

The RRF contributes to climate finance in Portugal with EUR 9.2 billion up to 2026, representing 41.2 % of the RRF⁽¹⁴¹⁾.

The European Investment Bank (EIB) provided EUR 109.9 billion financing across the EU-27 between 2021 mid-2024 to support energy, transport and industry projects, which are aligned with the EU's climate objectives. Of this amount, EUR 1.5 billion was assigned to Portugal in the reference period⁽¹⁴²⁾.

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 256 million in 2020, EUR 514 million in 2021 and EUR 673 million in 2022, in Portugal, totalling at EUR 1 443 million in the three-year period. In Portugal, all revenues from auctioning are channelled to the Environment Fund (alongside other revenues), which finances environmental projects that may or may not be directly related to climate objectives. The amounts reported as spent represent climate change and energy projects paid for by the Environmental Fund⁽¹⁴³⁾.

From the remaining part of the EU ETS revenues that feed into the Innovation Fund and the Modernisation Fund, further support is available to support 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⁽¹⁴⁴⁾.

Environmental financing and investments

This section describes Portugal's investment needs, current financing and gaps as they relate to the four

⁽¹³⁹⁾ European Commission, *Statement of Estimates of the European Commission – For the financial year 2025*, Publications Office of the European Union, Luxembourg, 2024, pp. 94–96, https://commission.europa.eu/document/download/7a0420e1-599e-4246-9131-ccb7d505d6d9_en?filename=DB2025-Statement-of-Estimates_1.pdf.

⁽¹⁴⁰⁾ See the Cohesion Open Data Platform (<https://cohesiondata.ec.europa.eu/>).

⁽¹⁴¹⁾ EU Commission datasets, and the Recovery and Resilience Scoreboard (https://ec.europa.eu/economy_finance/recovery-and-resilience-scoreboard/index.html).

⁽¹⁴²⁾ A list of financed projects is provided by the EIB (<https://www.eib.org/en/projects/loans/index.htm>).

⁽¹⁴³⁾ European Commission: Directorate-General for Climate Action, *Progress Report 2023 – Climate action*, Publications Office of the European Union, Luxembourg, 2023, https://climate.ec.europa.eu/news-your-voice/news/climate-action-progress-report-2023-2023-10-24_en.

⁽¹⁴⁴⁾ NB: Indirect investments (from climate and other policies) in support of the environment are accounted for via the tracking.

environmental objectives beyond climate objectives, namely tackling pollution, the circular economy and waste, water protection and management, and biodiversity and ecosystems ⁽¹⁴⁵⁾.

The environment overall

Investment needs

The overall environmental investment needs to be sufficient to enable Portugal to meet its objectives in the areas of pollution prevention and control, the circular economy and waste, water protection and management, and biodiversity and ecosystems. The required investment is estimated to be EUR 6.5 billion per year (in 2022 prices).

Of the estimated requirement, around EUR 1.5 billion per year, can be attributed to the need to support biodiversity and ecosystems. For pollution prevention and control, the annual investment needs are estimated to be EUR 1.1 billion, for water they are EUR 1.4 billion, and for the circular economy EUR 2.5 billion (in 2022 prices).

Current investments

To implement the environmental investments needed, the available financing is estimated to currently reach an annual EUR 5 billion in Portugal from EU and national sources combined (in 2022 prices).

Total environmental funding from the multiannual financial framework (MFF) is estimated to reach around EUR 6.7 billion for Portugal in total, during 2021–2027 (or EUR 957 million per year) (see Table 1).

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

Instrument	Allocations
Cohesion policy	4 304.1 ^(a)
ERDF	3 118.0
Cohesion Fund	1 164.6
Just Transition Fund	21.5
CAP	1 633.8 ^(b)
European Agricultural Guarantee Fund	754.5
European Agricultural Fund for Rural Development	879.3
EMFAF	58.8
Other MFF sources	704.6 ^(c)
RRF ^(d) (2021–2026)	5 778

⁽¹⁴⁵⁾ Research, development and innovation is accounted for under each environmental objective. The financing needs, baselines and gap estimates are based on the Directorate-General for Environment's internal analysis (of 2024). Throughout this finance chapter, specific references are provided to the most important data sources used.

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

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

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

^(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. Source: European Commission.

In 2021–2027, EU cohesion policy will support long-term development objectives in Portugal by investing EUR 22.75 billion, including EUR 223.8 million from the new Just Transition Fund directed to alleviate the socioeconomic impacts of the green transition in the most vulnerable regions. A relevant part of the ERDF and the Cohesion Fund is devoted to environmental investments.

It is worth recalling that the implementation of the ERDF for 2021–2027 is linked to the fulfilment of the enabling conditions, including the three environmental ones. Portugal has already met the nature enabling condition, although further efforts are needed to comply with the waste and water enabling conditions.

Portugal also participates in various programmes of territorial cooperation (transnational and cross-border cooperation) under the ERDF in which the environmental investments carry considerable weight, and outstanding projects and good practices can be found ⁽¹⁴⁶⁾.

Environmental integration has been ensured in the Partnership Agreement for 2021–2027 and the different

⁽¹⁴⁶⁾ Like the RISC_PLUS Interreg project, under the POCTEP 2021–2027, which is based on prevention, preparedness and digitisation, aiming to strengthen resilience to the risks of floods and droughts derived from the impact of climate change in the International Basins of the Miño and Limia Rivers, in Spain and Portugal. It aims to extend and improve the RISC_ML initiative supported under the POCTEP 2014–2020. <https://risc-plus.eu/en/>

Programmes for the ERDF, Cohesion Fund and Just Transition Fund through the application of the Strategic Environmental Assessment (SEA) Directive and by other means.

Portugal, in addition to receiving EU funds earmarked specifically for it in 2021–2027, can also benefit from funding programmes that can be accessed at the EU level and which are open to all Member States. These include the LIFE programme⁽¹⁴⁷⁾ (EUR 5.4 billion), Horizon Europe⁽¹⁴⁸⁾ (EUR 95.5 billion), the Connecting Europe Facility⁽¹⁴⁹⁾ (EUR 33.7 billion) and the InvestEU programme⁽¹⁵⁰⁾.

Under NextGenerationEU, Portugal is set to receive EUR 22.2 billion (EUR 16.3 in grants and EUR 5.9 in loans) from the RRF. Portugal's Recovery and Resilience Plan (RRP)⁽¹⁵¹⁾ is based on three pillars: resilience, climate transition and digital transition. Portugal's revised RRP (September 2024) is structured in 21 components. It includes 44 Reforms and 144 Investments.

Portugal's RRP supports climate objectives through funding of EUR 9.2 billion (41 % of total) with a 2.5 % additional amount for the environment (EUR 0.55 billion). The components more relevant for environmental topics are: 8 on forests, 9 on water management, 12 on bioeconomy, and 10 on the sea.

The EIB provided around EUR 842 million in an environment-related financial contribution to Portugal from 2021 to mid-2024, most of which, EUR 578.2 million (69 %), is in the areas of sustainable energy, transport and industrial projects, which provides significant co-benefits such as 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 Portugal, total national environmental protection expenditure was EUR 3.3 billion in 2020 and EUR 3.9 billion in 2021, representing 1.6 % and 1.8 % 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 Portugal, national environmental

protection investment reached EUR 731 billion in 2020, rising to EUR 775 billion in 2021, representing around 0.4 % of GDP.

Split by institutional sector, 26 % of Portugal's national environmental protection investment (capital expenditure) comes from the general government budget, with 55 % coming from specialist private-sector producers (of environmental protection services such as waste and water companies) and 19 % from the 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⁽¹⁵²⁾.

Portugal's total financing for environmental investment reaches an estimated EUR 5 billion per year (in 2022 prices), including EU funding, national public and national private expenditure. Of the total, the share of EU funding (including EIB) reaches 36 %, with around 64 % national financing. The total public financing (EU plus national public) represents 53 % 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 1.6 billion per year in Portugal, representing around 0.65 % of the national GDP, which is lower than the EU average (0.77 %) (Figure 31).

⁽¹⁴⁷⁾ https://cinea.ec.europa.eu/programmes/life_en.

⁽¹⁴⁸⁾ European Commission, Horizon Europe, https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en.

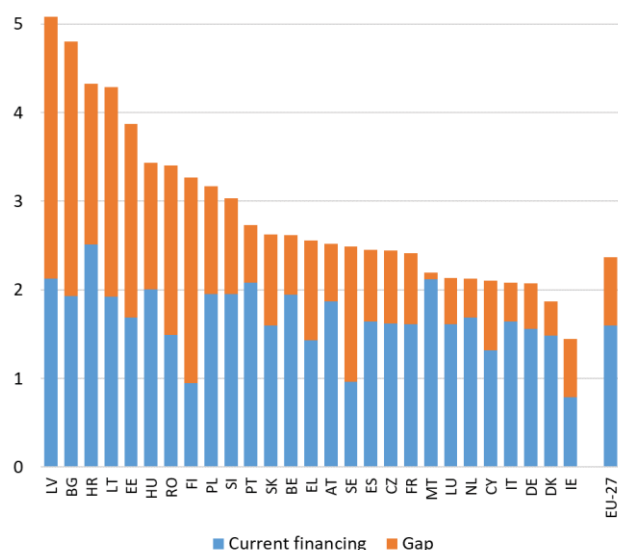
⁽¹⁴⁹⁾ The Connecting Europe Facility Transport part also includes EUR 11.3 billion transferred from the Cohesion Fund, of which 30 % will be made available, on a competitive basis, to all Member States eligible for the Cohesion Fund. The remaining 70 % will respect the national envelopes until 31 December 2023.

⁽¹⁵⁰⁾ 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.

⁽¹⁵¹⁾ https://commission.europa.eu/business-economy-euro/economic-recovery/recovery-and-resilience-facility/country-pages/portugals-recovery-and-resilience-plan_en.

⁽¹⁵²⁾ Eurostat, 'Environmental protection expenditure accounts', env_ac_epea.

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



Source: Analysis of Directorate-General for Environment.

Table 2 shows the distribution of Portugal's environmental investment gap (expressed in various forms) by environmental objective.

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

Environmental objective	Investment gap per year		
	Million EUR (2022 prices)	% of total	% of GDP
Pollution prevention and control	—	—	—
Circular economy and waste	472	30.4	0.2
Water management and water industries	371	23.9	0.2
Biodiversity and ecosystems	805	51.8	0.3

⁽¹⁵³⁾ 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).

⁽¹⁵⁴⁾ European Commission, *Third Clean Air Outlook*, Brussels, 2022, https://environment.ec.europa.eu/topics/air/clean-air-outlook_en. See also the impact assessment for the revision of the AAQD, available from the Commission web page on the proposed revision

Total	1 554	100.0	0.65
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Source: Directorate-General for Environment analysis.

Pollution prevention and control

Investment needs

In pollution prevention and control, Portugal's investment needs are estimated to reach EUR 1.2 billion per year (including baseline investments) in 2021–2027. Most of this, EUR 1 billion, relates to air pollution control to comply with the clean air requirements for the five main air pollutants under the NEC Directive by 2030. The estimated needs to reduce environmental noise reach EUR 0.4 billion per year, most of which is delivered by the (same) sustainable energy and transport investments that also benefit clean air⁽¹⁵³⁾. Industrial site remediation requires an estimated EUR 44 million per year. Microplastics pollution and the chemicals strategy require around EUR 30 million per year (each)⁽¹⁵⁴⁾.

Current investments

The current investment levels supporting pollution prevention and control reach an estimated EUR 1.2 billion per year in Portugal in 2021–2027. Most of the financing concerns clean air (EUR 1.1 billion per year). Protection from environmental noise receives around EUR 1.4 billion per year, with a further 46 million for radiation protection and 27 million for site remediation a year.

In Portugal, the EU MFF provides an estimated 24 % of the clean air financing (mostly via cohesion policy), with a further 52 % from the RRF, adding up to 76 % of the total. EIB financing contributes 6 % and national sources reach 17 %⁽¹⁵⁵⁾.

The gap

To meet its environmental objectives concerning pollution prevention and control (towards zero pollution), Portugal needs to provide some additional tens of millions of euros, in the areas of site remediation, chemicals and microplastics, taken together. The adequate implementation of the NECP with the investments included for sustainable energy and transport would

(https://environment.ec.europa.eu/publications/revision-eu-ambient-air-quality-legislation_en).

⁽¹⁵⁵⁾ Through the tracking of EU funds, EIB projects and national expenditure (EPEA accounts, Eurostat). Note that the bulk of clean air financing is provided as a contribution from climate (energy and transport) measures, as per the tracking schemes in the Common Provisions Regulation Annex I and the RRF Regulation Annex VI. Further information on clean air tracking: https://commission.europa.eu/document/download/0a80484e-2409-4749-94c6-3b23bc6bae8f_en?filename=Clean%20air%20methodology_0.pdf

largely deliver the necessary investments for clean air and noise.

According to the latest (2023) NAPCP review report ⁽¹⁵⁶⁾, Portugal did not comply with NH₃ reduction requirements in 2020 and 2021, while it is not at risk of non-compliance for NH₃ and other air pollutants concerning the NEC Directive 2030 emission reduction commitments, based on the policies and measures in its NAPCP that takes into account climate, energy and CAP plans and financing baselines.

Circular economy and waste

Investment needs

Portugal's investment needs in circular economy and waste reach EUR 2.5 billion per year (including baseline investments). Most of this, around EUR 2.1 billion per year, relates to circular economy measures in the mobility, food and built environment systems, with a further EUR 0.4 billion necessary for waste management (municipal and packaging waste), covering waste collection, biowaste treatment; recycling reprocessors; waste-sorting facilities; and digitalisation of the waste registry. The amount for waste excludes the investments needed for the uptake of circularity and waste prevention across the economy ⁽¹⁵⁷⁾.

Current investments

Circular economy investments across the economy reach around EUR 1.7 billion per year in Portugal in 2021-2027, with a further EUR 0.3 billion provided for waste management that does not constitute circular economy.

Around 4 % of this combined financing for circularity and waste comes from the EU MFF, with a further 0.1 % contribution from the RRF, coming to 4.1 % combined. EIB loans identified in support of circularity and waste represent 1.3 % of the total. The share of national sources is absolutely overwhelming, reaching 95 % of the total financing ⁽¹⁵⁸⁾.

The gap

To meet its environmental objectives concerning the circular economy and waste, Portugal needs to increase circular economy investments by an estimated EUR 356 million per year, with an additional EUR 116 million concerning waste management action, not belonging to circular economy. Combined, this amounts to EUR 472 million per year, representing 0.20 % of Portugal's GDP.

Of the circular economy gap, EUR 93 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 263 million constitutes further investment need to unlock Portugal's circular economy potential.

Water protection and management

Investment needs

The annual water investment needs reach an estimated EUR 1426 million (in 2022 prices) in Portugal. This comprises investment needs both for the water industry and for the protection and management of water. Of the total annual need, EUR 627 million relates to the management of wastewater (also including additional costs associated with the revised UWWTD), a further EUR 706 million is necessary for drinking water-related investments and around EUR 85 million for the protection and management of water ⁽¹⁵⁹⁾.

Current investments

Water investments in Portugal are estimated to be around EUR 1 054 million per year (in 2022 prices) in 2021–2027. Of this, EUR 311 million supports wastewater management, EUR 595 million drinking water and around EUR 144 million the other aspects of the Water Framework Directive (water management and protection).

Of the total financing, 13.9 % is provided by the EU MFF (mostly through cohesion policy), with a further 5.8 % support from the RRF, reaching 19.7 % combined. EIB

⁽¹⁵⁶⁾ European Commission, 'National air pollution control programmes and projections', European Commission website, https://environment.ec.europa.eu/topics/air/reducing-emissions-air-pollutants/national-air-pollution-control-programmes-and-projections_en.

⁽¹⁵⁷⁾ See Systemiq and Ellen MacArthur Foundation, *Achieving 'Growth Within'*, 2017; and European Commission: Directorate-General for Environment, *Study on investment needs in the waste sector and on the financing of municipal waste management in Member States*, Publications Office of the European Union, Luxembourg, 2019, <https://op.europa.eu/en/publication-detail/-/publication/4d5f8355-bcad-11e9-9d01-01aa75ed71a1>.

⁽¹⁵⁸⁾ 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).

⁽¹⁵⁹⁾ See European Commission, 'Estimating investment needs and financing capacities for water-related investment in EU Member States', 28 May 2020, https://commission.europa.eu/news/estimating-investment-needs-and-financing-capacities-water-related-investment-eu-member-states-2020-05-28_en; and OECD, *Financing Water Supply, Sanitation and flood Protection: Challenges in EU Member States and policy options*, OECD Publishing, Paris, 2020, https://www.oecd-ilibrary.org/environment/financing-water-supply-sanitation-and-flood-protection_6893cdac-en.

financing is around 0.8 % of the total, while the bulk of financing comes from national sources (79.5 %) ⁽¹⁶⁰⁾.

The gap

To meet the various environmental targets under the Water Framework Directive and the Floods Directive, Portugal's water investment gap reaches EUR 371 million per year (0.16 % of GDP), with EUR 316 million linked to wastewater measures. Drinking water measures require an additional EUR 110 million per year.

It should be noted that Portugal adopted in February 2024 the PENSAARP 2030, the new national strategic plan for water supply, wastewater and pluvial water management, envisaging an investment of EUR 3 159 million for wastewater management and EUR 400 million for urban run-off (ideal scenario).

Biodiversity and ecosystems

Investment needs

The investment needs for biodiversity and ecosystems are estimated to be EUR 1.5 billion per year (in 2022 prices) in Portugal in 2021–2027. This includes the following financing needs:

- Portugal's Prioritised Action Framework ⁽¹⁶¹⁾ (PAF), concerning the Natura 2000 areas: EUR 207 million per year, mostly running costs;
- Additional Biodiversity Strategy to 2030 ⁽¹⁶²⁾ costs: EUR 896 million per year on top of the PAF, and,
- Sustainable soil management ⁽¹⁶³⁾ costs: EUR 367.2 million per year.

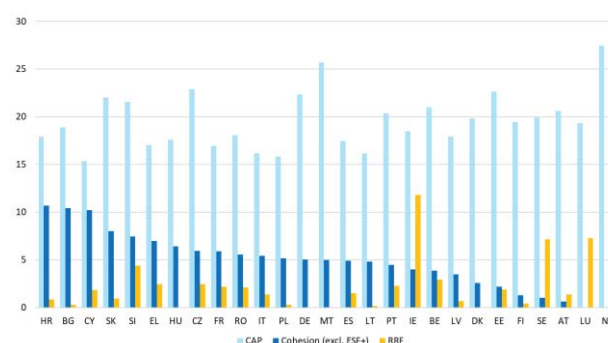
Current investments

The current level of biodiversity financing is estimated to be EUR 665 million per year (in 2022 prices) in 2021–2027. 72.5 % of the financing is considered direct financing to biodiversity and ecosystems, with a 100 % coefficient in the tracking schemes.

10.7 % of the total financing is estimated to come from EU cohesion policy, 32.9 % from the CAP, 7 % from Horizon Europe, and around 2.7 % from LIFE and 1.1 % from EMFAF. The EU MFF altogether accounts for 55.3 % of the financing and the RRF for 10.1 %, adding up to a total of 65.4 % from the EU budget. The rest, 34.6 %, comes from national sources.

Portugal has programmed a relatively high share (20.3 %) of its CAP funds for 2021–2027 for biodiversity support measures. On the other hand, 4.5 % (below EU average) of its cohesion policy EU contribution amount is dedicated to biodiversity (disregarding ESF+), as well as 2.3 % of RRF funding (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 horizontal measures, Portugal's investment gap is estimated to be around EUR 805 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, including Portugal, already use green budgeting tools for identifying and tracking green expenditures

⁽¹⁶⁰⁾ Water investment levels are estimated through tracking EU funds, EIB projects and national expenditure (EPEA accounts, Eurostat).

⁽¹⁶¹⁾ European Commission, 'Financing Natura 2000 – Prioritised action frameworks', European Commission website, https://environment.ec.europa.eu/topics/nature-and-biodiversity/natura-2000/financing-natura-2000_en..

⁽¹⁶²⁾ European Commission: Directorate-General for Environment, *Biodiversity Financing and Tracking – Final report*, Publications Office of the European Union, Luxembourg, 2022,

<https://op.europa.eu/en/publication-detail/-/publication/793eb6ec-dbd6-11ec-a534-01aa75ed71a1/language-en>.

⁽¹⁶³⁾ Proposal for a directive of the European Parliament and of the Council on soil monitoring and resilience (Soil Monitoring Law) COM(2023) 416 final of 5 July 2023, https://environment.ec.europa.eu/publications/proposal-directive-soil-monitoring-and-resilience_en.

and/or revenues ⁽¹⁶⁴⁾. Green budgeting practices ⁽¹⁶⁵⁾ 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 ⁽¹⁶⁶⁾.

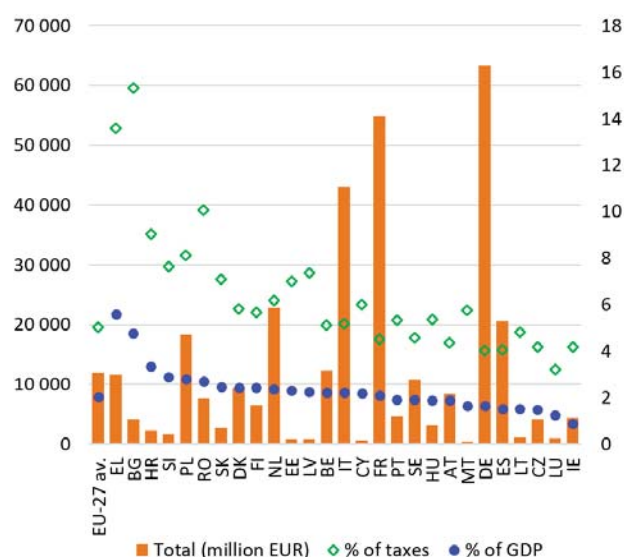
To help Member States develop national green budgeting and thereby improve policy coherence and support the green transition, the Commission facilitated a Technical Support Instrument (TSI) project on green budgeting from 2021 to 2024 ⁽¹⁶⁷⁾. Portugal participated, taking steps towards its own green budgeting tagging methodology.

Beyond green budgeting, to improve policy outcomes, the Commission has also drawn up climate-proofing and sustainability-proofing guidance ⁽¹⁶⁸⁾ as tools to assess project eligibility and compliance with environmental legislation and criteria.

Green taxation and tax reform

Total environmental taxes amounted to EUR 4.7 billion in Portugal in 2022, representing 1.9 % of its GDP (EU average 2.0 %) (Figure 33). Energy taxes formed the largest component of environmental taxes, accounting for 1.4 % of GDP, which is lower than the EU average of 1.6 %. Transport taxes, at 0.5 % of GDP, were above the EU average (0.4 %), while taxes on pollution and resources, at 0.03 %, were under the EU middle value (EU average 0.08 %). In 2022, environmental taxes in Portugal accounted for 5.3 % of total revenues from taxes and social security contributions (slightly under the EU average of 5.0 %) ⁽¹⁶⁹⁾.

Figure 33: Environmental taxes per Member State, 2022



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

According to a 2024 study ⁽¹⁷⁰⁾ Portugal applies a levy on low-density plastic bags to discourage environmentally harmful activities and behaviours in the fields of packaging and plastic bags. Moreover, it applies emission charges for aircraft noise and emissions and for solid waste disposal and landfilling, product charges for the disposal of batteries and electronic articles, levies on plastics and tyres and a hunting and fishing tax ⁽¹⁷¹⁾.

⁽¹⁶⁴⁾ European Commission, *Green Budgeting in the EU. Key Insights from the 2023 European Commission Survey of Green Budgeting Practices*, 2023, https://economy-finance.ec.europa.eu/economic-and-fiscal-governance/national-fiscal-frameworks-eu-member-states/green-budgeting-eu_en#:~:text=European%20Commission%20Green%20Budgetin,g%20Survey%2%A0.

⁽¹⁶⁵⁾ https://economy-finance.ec.europa.eu/economic-and-fiscal-governance/national-fiscal-frameworks-eu-member-states/green-budgeting-eu_en.

⁽¹⁶⁶⁾ European Commission, ‘European Union green budgeting reference framework’, 2022, https://economy-finance.ec.europa.eu/economic-and-fiscal-governance/green-budgeting-eu_en.

⁽¹⁶⁷⁾ https://reform-support.ec.europa.eu/what-we-do/revenue-administration-and-public-financial-management/supporting-implementation-green-budgeting-practices-eu_en.

⁽¹⁶⁸⁾ Commission notice – Technical guidance on the climate proofing of infrastructure in the period 2021–2027 (OJ C 373, 16.09.2021, p. 1), <https://op.europa.eu/en/publication-detail/-/publication/23a24b21-16d0-11ec-b4fe-01aa75ed71a1/language-en>.

⁽¹⁶⁹⁾ Eurostat, ‘Environmental taxes accounts’, env_eta.

⁽¹⁷⁰⁾ European Commission: Directorate-General for Environment, *Candidates for Taxing Environmental Bads at National Level*, Publications Office of the European Union, Luxembourg, 2024, Annex 2, <https://op.europa.eu/en/publication-detail/-/publication/35c1bbdf-2931-11ef-9290-01aa75ed71a1/language-en>.

⁽¹⁷¹⁾ European Commission: Directorate-General for Environment, *Candidates for Taxing Environmental Bads at National Level*, Publications Office of the European Union, Luxembourg, 2024, Annex 1, <https://op.europa.eu/en/publication-detail/-/publication/35c1bbdf-2931-11ef-9290-01aa75ed71a1/language-en>.

Green bonds and sustainable bonds

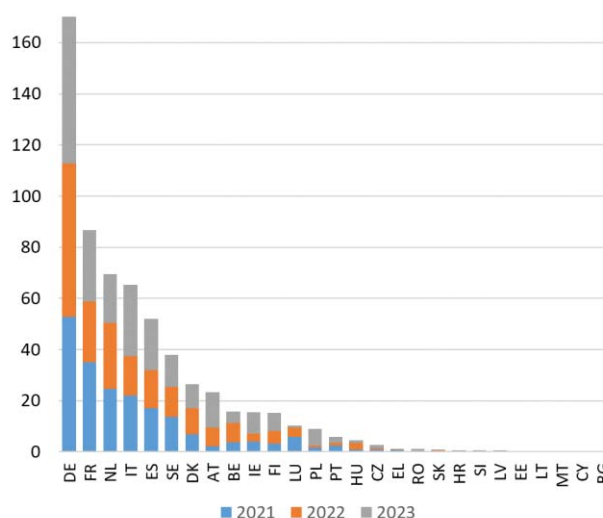
In 2023, the total value of green bonds issued by the Member States was USD 245 billion (EUR 227 billion), up from USD 234 billion (EUR 198 billion) in 2021.

During 2021–2023 combined, Portugal issued green bonds worth USD 6.4 billion (EUR 5.5 billion) (Figure 34). Of this, the issuance in 2023 amounted to USD 2.4 billion (EUR 2.2 billion) ⁽¹⁷²⁾.

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

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

Figure 34: Value of green bonds issued per Member State (billion EUR) in 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 (EHSs), in particular fossil fuel subsidies (FFS), is a further step towards achieving the 8th Environment Action Programme objectives and the enabling conditions ⁽¹⁷³⁾. FFS are costly for public budgets and make it difficult to achieve European Green Deal objectives.

The overall downward trend in FFS mentioned in past EIRs has been disrupted since 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 fossil fuel subsidies of 72 % in the EU ⁽¹⁷⁴⁾.

For the majority of the Member States (16) the year 2022 saw a peak in the amount of overall FFS. A decline was then observed in 2023 ⁽¹⁷⁵⁾. 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 Portugal, the energy subsidies were relatively stable in 2015–2020, followed by a drop in 2021 and a significant increase in 2022 (an EU-wide phenomenon) (Figure 35). FFS between 2015 and 2021 were stable, between EUR 0.7 and EUR 1.0 billion per year, with an outstanding

⁽¹⁷²⁾ Climate bonds initiative (<https://www.climatebonds.net/>). NB. Additionally (and not included in this), national sources indicated EUR 544.8 million issuance for Croatia, in 2022–2023, and a slightly higher amount for Slovenia (+0.27 billion) during 2021–2023 in total.

⁽¹⁷³⁾ Article 3(h) of the eighth environment action programme.

⁽¹⁷⁴⁾ European Commission, 2024 Report on Energy Subsidies in the European Union, COM(2025).

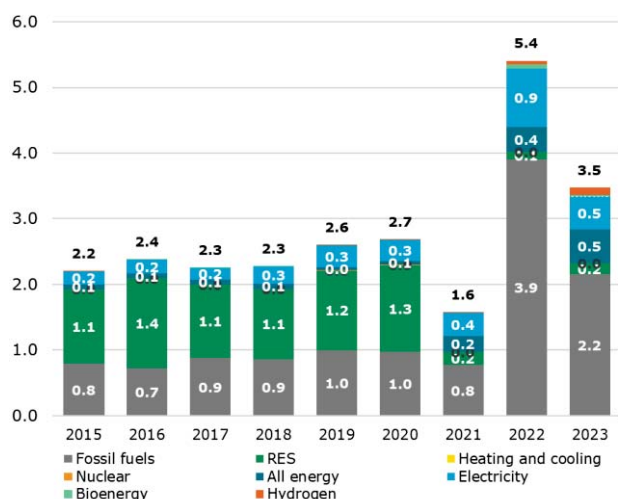
[https://ec.europa.eu/transparency/documents-register/detail?ref=COM\(2025\)17&lang=en](https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2025)17&lang=en)

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

EUR 3.9 billion in 2022, partly recovering in 2023 (FFS decreasing to EUR 2.2 billion).

As a share of GDP, fossil fuel subsidies in 2022 ranged from 1.8 % in Croatia to less than 0.1 % in Denmark and Sweden. Portugal's value reached 1.6 %, above the EU average (0.8 %) ⁽¹⁷⁶⁾.

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



NB: RES, renewable energy source.

Source: analysis of Directorate-General Energy

Chapter 5 of the 2022 EIR included the following priority actions for Portugal: (i) devise an environmental financing strategy to maximise opportunities for closing environmental implementation gaps, bringing together all relevant administrative levels, and (ii) ensure an increased level of financing, compared with past levels, for the environment, including from private sources (currently accounting for a third of the total), to cover significant investment needs across the environmental objectives.

The overall environmental investment gap has been decreasing in Portugal compared with the EIR 2022, and (at 0.65 % of GDP) has become lower than the EU average.

Portugal should take advantage of the available EU funding to improve its environmental compliance and to develop the potential of the green economy to improve the country's competitiveness and create jobs.

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.

⁽¹⁷⁶⁾ European Commission, 2024 Report on Energy Subsidies in the European Union, COM(2025).

[https://ec.europa.eu/transparency/documents-register/detail?ref=COM\(2025\)17&lang=en](https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2025)17&lang=en)

6. Environmental governance

Information, public participation and access to justice

Citizens can more effectively protect the environment if they rely on the three 'pillars' of the Aarhus Convention: (i) access to information, (ii) public participation in decision-making and (iii) access to justice in environmental matters. It is of crucial importance to public authorities, the public and businesses that environmental information is shared efficiently and effectively⁽¹⁷⁷⁾. 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⁽¹⁷⁸⁾. It includes the right to bring legal challenges ('legal standing')⁽¹⁷⁹⁾.

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.

Portugal's performance in implementing the INSPIRE Directive is substantial and has been reviewed based on its 2023 country fiches⁽¹⁸⁰⁾ (see Table 3).

Table 3: Portugal dashboard on the implementation of the INSPIRE Directive, 2016–2023

	2016	2023	Legend
Effective coordination and data sharing			■ Implementation of this provision is well advanced or (nearly) completed. Outstanding issues are minor and can be addressed easily. Percentage: > 89 %
Ensure effective coordination	■	■	
Data sharing without obstacles	■	■	
INSPIRE performance indicators			
(i) Conformity of metadata	■	■	■ Implementation of this provision has 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	■	■	
(iv) Conformity of network services	■	■	■ Implementation of this provision is falling significantly behind. Serious efforts are necessary to close the implementation gap. Percentage: < 31 %

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

Portugal received a priority action in the 2022 EIR for its implementation of the INSPIRE Directive. It has made progress on the accessibility of spatial data, but more efforts are needed to make spatial data more widely

⁽¹⁷⁷⁾ The Aarhus Convention (<https://unece.org/environment-policy/public-participation/aarhus-convention/text>), the Access to Environmental Information Directive (Directive 2003/4/EC) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003L0004>) and the INSPIRE Directive (Directive 2007/2/EC) (<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32007L0002>) together create a legal foundation for the sharing of environmental information between public authorities and with the public.

⁽¹⁷⁸⁾ These guarantees are explained in the [European Commission's 2017 notice](https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52017XC0818(02)) on access to justice in environmental matters ([https://eur-lex.europa.eu/legal-](https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52017XC0818(02))

[content/EN/ALL/?uri=CELEX:52017XC0818\(02\)](https://op.europa.eu/en/publication-detail/-/publication/2b362f0a-bfe4-11e8-99ee-01aa75ed71a1/language-en/format-PDF) and a related 2018 citizen's guide (<https://op.europa.eu/en/publication-detail/-/publication/2b362f0a-bfe4-11e8-99ee-01aa75ed71a1/language-en/format-PDF>).

⁽¹⁷⁹⁾ 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.

⁽¹⁸⁰⁾ European Commission, 'Portugal', Inspire Knowledge Base, https://knowledge-base.inspire.ec.europa.eu/portugal_en.

accessible and prioritise the environmental datasets ⁽¹⁸¹⁾. Therefore, the 2022 priority action is repeated in 2025.

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 ⁽¹⁸²⁾ and the Strategic Environmental Assessment (SEA) Directive ⁽¹⁸³⁾.

EU law provides for a flexible framework concerning environmental impact assessments. 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 ⁽¹⁸⁴⁾. Portugal has already taken steps aiming to accelerate permitting procedures taking advantage of the broad flexibilities offered by the EU legal framework, such as the establishment of one-stop shops and accelerated short deadlines for issuing permits for renewable energy projects.

The average speed in the EU for issuing permits involving an EIA procedure is 20.6 months with a minimum duration

of 11.4 months and a maximum duration of 75.7 months ⁽¹⁸⁵⁾. 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. There are no data available for Portugal. A priority action is included for 2025 to provide more detailed information on the different stages of the EIA process. 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 ⁽¹⁸⁶⁾.

Portugal has, since 2015, made available an integrated online service ⁽¹⁸⁷⁾ allowing citizens, NGOs or businesses to participate in EIA and SEA processes: the Participa website makes available a full list of cases, with access to relevant documentation, and facilitates submission of evidence by the public. This channel is also available for participating in the preparation of other environmental plans, for example in the nature, waste and water sectors. However, there are other plans with an environmental dimension where public participation is channelled through other tools, for example on noise and transport. Moreover, information is not yet available on the extent to which the public makes use of the opportunity to participate in SEA and EIA processes, and it is therefore not possible to identify whether further action is needed by public authorities to encourage participation. Hence, as in the 2022 EIR, a priority action is proposed on this matter. In addition, access to environmental information and associated administrative documents is guaranteed in law.

Access to justice

Access to justice, guaranteed by Article 19(1) of the Treaty on European Union and Article 47 of the Charter of Fundamental Rights of the European Union, is a fundamental right and part of the democratic process. It is vital to ensure the full application of EU law in all Member

⁽¹⁸¹⁾ https://github.com/INSPIRE-MIF/need-driven-data-prioritisation/blob/main/documents/eReporting_PriorityDataList_V2.1_final_20201008.xlsx.

⁽¹⁸²⁾ Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (OJ L 124, 25.4.2014, p. 1), <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0052>.

⁽¹⁸³⁾ Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment (OJ L 197, 21.7.2001, p. 30), <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32001L0042>.

⁽¹⁸⁴⁾ Commission Staff Working Document (SWD/2022/0149 final), 18 May 2022, ([https://eur-lex.europa.eu/legal-](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022SC0149&qid=1653034229)

[content/EN/TXT/?uri=CELEX%3A52022SC0149&qid=1653034229](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022SC0149&qid=1653034229) 953).

⁽¹⁸⁵⁾ 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, <https://op.europa.eu/en/publication-detail/-/publication/8349a857-2936-11ef-9290-01aa75ed71a1/>.

⁽¹⁸⁶⁾ 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>

⁽¹⁸⁷⁾ <https://participa.pt>.

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).

As mentioned in the 2022 EIR, Portugal allows both individuals and environmental associations to bring legal actions on environmental matters. NGOs may intervene in administrative and judicial proceedings provided that they also have an environmental scope in their statutory regulations when challenging SEA decisions (either the plan/programme or the environmental report or both) and also other plans and programmes. There is also a system of regular and substantive supervision of regulatory legally binding acts, and it is accessible for the members of the public and NGOs.

In 2022, there were priority actions addressed to Portugal on access to justice, namely to (i) better inform the public about their rights on access to justice (ii) and to ensure that costs are not a hindrance to effective access to justice in environmental matters. It is concluded that no progress has been made.

2025 priority actions

- Make spatial data more widely accessible and prioritise environmental datasets in implementing the INSPIRE Directive, especially those identified as high-value spatial datasets for implementing environmental legislation.
- Ensure that relevant information on EIA and SEA procedures (including on public participation opportunities and on publication of final decisions) is electronically accessible in a timely manner, through at least a central portal or easily accessible points of access, at the appropriate administrative level.
- Provide information on the average duration of all steps in the EIA process.
- Improve access to courts in national environmental cases by the public concerned and eliminate practical barriers, such as length of proceedings and excessive costs.

⁽¹⁸⁸⁾ The concept is explained in detail in 2018 communication on EU actions to improve environmental compliance and governance (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018DC0010>) and the related Commission staff working document (<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52018DC0010>).

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 ⁽¹⁸⁸⁾ and to remedy any environmental damage. It includes measures such as (i) compliance promotion; (ii) compliance monitoring (i.e. inspections and other checks); (iii) enforcement, that is, steps taken to stop breaches and impose sanctions; and (iv) ensuring damage prevention and remediation in line with the polluter-pays principle.

Compliance promotion, monitoring and enforcement

Non-compliance with environmental obligations may occur for different reasons, including poor understanding or lack of acceptance of the rules, opportunism or even criminality. Compliance promotion activities help duty-holders to comply by providing information, guidance 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.

Portugal is very active within the EU Network for the Implementation and Enforcement of Environmental Law (IMPEL) and has made efforts to enhance specialisation and cooperation. Useful work has been done on establishing tools for the assessment of substantial damage to water for the purposes of inspections and sanctioning of non-compliance. Thus, technical guidance has been produced by a working group under the IMPEL National Network, and it has been used since 2022 in concrete cases of investigation of criminal offences in environmental matters, when there is potential damage to water resources ⁽¹⁸⁹⁾.

The 2022 EIR extensively covered the compliance promotion and monitoring activities carried out by the General Inspectorate for Agriculture, Sea, Environment and Spatial Planning (IGAMAOT), which plays a key role in this domain.

The IMPEL National Network involves 18 authorities, including IGAMAOT, as coordinator, and authorities (including from Azores and Madeira), namely agencies, police authorities, the Public Prosecution Service (PGR), and, since December 2024 as an observer, the Supreme Judicial Council (SCM), that cooperate on IMPEL activities

[lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018SC0010](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018SC0010).

⁽¹⁸⁹⁾ APA, Technical scientific index for the clarification of illicit actions on water resources' (in Portuguese), APA website, <https://apambiente.pt/agua/indice-tecnico-cientifico-esclarecimento-do-ilicito-sobre-os-recursos-hidricos>.

and at national level. An annual balance report of the work done is available to the public on the IGAMAOT website ⁽¹⁹⁰⁾.

Concerning more effective enforcement, since 2017, Portugal has a national plan for environmental inspection and enforcement (*Plano nacional de fiscalização e inspeção ambiental* (PNFIA)), an annual plan with national coverage, based on a digital platform coordinated by IGAMAOT, with the purpose of developing synergies arising from the articulation of the attributions of each of the entities with permitting, enforcement and inspection responsibilities in the area of governance of the environment. The PNFIA platform allows the accommodation and planning of enforcement in a coordinated manner, as well as maximising resources and avoiding unjustified duplication of effort, with resulting gains in efficiency in the administration's monitoring of compliance with environmental legislation. The entities that implement the PNFIA are IGAMAOT, the five Commissions for Coordination and Regional Development (CCDR) of the North, Centre, Lisbon and Tagus Valley, Alentejo and Algarve, the Portuguese Environment Agency (APA) and, since 2020, the Directorate-General for Energy and Geology (DGEG). An annual balance report is available to the public on the PNFIA website ⁽¹⁹¹⁾.

Regarding complaints at the national level, Portugal has developed an IT portal and a platform to manage complaints in the areas of agriculture, sea and environment, as a part of the project iFAMA ⁽¹⁹²⁾ – Single Inspection and Monitoring platform. This is a single point of entry, management and centralisation of complaints, in electronic form, by the 17 competent authorities in the areas of agriculture, sea and environment. When submitted, complaints will be automatically directed to one authority and citizens will have access to information on the management of their complaints.

The 2022 EIR recommended that Portugal provides more targeted information online to help farmers understand how to comply with their obligations on nature protection. Concerning compliance promotion, monitoring and criminal and administrative enforcement, the 2022 priority actions are not assessed here due to 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 Directive and Nature Directives, and hence the 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) ⁽¹⁹³⁾ and new sectorial 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 replaces the 2008 ECD and introduces several new offence categories, such as unlawful ship recycling, unlawful water abstraction, and serious breaches of EU legislation on chemicals, mercury, fluorinated GHGs 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 that can be imposed for natural and legal persons who commit an offence were also introduced. Other provisions will help considerably to improve the effectiveness in combating environmental crime of all actors along the enforcement chain. These include obligations to ensure adequate resources and investigative tools, specialised regular training and the establishment of cooperation mechanisms within and between Member States as well as national strategies on combating environmental crime.

Member States are required to transpose the new ECD into national law by 21 May 2026 and to take additional measures to combat environmental crime more effectively, 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 IMPEL ⁽¹⁹⁴⁾, EnviCrimeNet ⁽¹⁹⁵⁾, the European Network of Prosecutors

⁽¹⁹⁰⁾ <https://www.igamaot.gov.pt/pt/espaco-publico/relatorios/relacoes-internacionais>.

⁽¹⁹¹⁾ <https://www.igamaot.gov.pt/contents/pagecollapselist/extrato-relatoriopnfia2023.pdf>.

⁽¹⁹²⁾ <https://ifama.igamaot.gov.pt/Portal/LandingPage>.

⁽¹⁹³⁾ Directive (EU) 2024/1203 of the European Parliament and of the Council of 11 April 2024 on the protection of the environment

through criminal law and replacing Directives 2008/99/EC and 2009/123/EC (OJ L 2024/1203, 30.4.2024), <https://eur-lex.europa.eu/eli/dir/2024/1203/oj/eng>.

⁽¹⁹⁴⁾ <https://www.impel.eu/en>.

⁽¹⁹⁵⁾ LIFE+SATEC project <https://webgate.ec.europa.eu/life/publicWebsite/project/LIFE2>

for the Environment⁽¹⁹⁶⁾ and the EU Forum of Judges for the Environment⁽¹⁹⁷⁾. The European Union Agency for Law Enforcement Cooperation and European Union Agency for Criminal Justice Cooperation mechanisms for cooperation on cross-border cases should be used more systematically for environmental offences.

In Portugal, IGAMAOT is a criminal police body with specific competence on environmental crime and has worked on more than 200 inquiries on environmental crimes, delegated by the Public Prosecution Service. Directive 1/2021, now replaced by Directive 1/2023 underlines the importance, in investigating environmental crimes, of having specialised teams of prosecutors; recognising the competence and expertise of IGAMAOT in supporting investigations; creating investigation teams involving various police authorities, including finance authorities; ensuring close cooperation among different jurisdictions within the Public Prosecution Service; and ensuring close cooperation between police authorities.

A formal agreement between IGAMAOT and the judiciary police was signed in 2021, providing for collaboration in the prevention, detection and investigation of crimes; for exchange of information and knowledge; and for joint training activities undertaken through the Judiciary Police School.

In 2024, IGAMAOT signed a partnership agreement with CEPOL, the European Union Agency for Law Enforcement Training on training on environmental crime, and joined EnviCrimeNet, the network of police authorities with competences in environmental crime.

Coordination with national units of the European Union Agency for Law Enforcement Cooperation and the International Criminal Police Organization was also strengthened, in order to improve access to relevant information on the environment, as was cooperation with the European Multidisciplinary Platform against Criminal Threats.

Environmental Liability Directive

The Environmental Liability Directive (ELD)⁽¹⁹⁸⁾ 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 groundwaters 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 damage to water and soil. The Commission has a legal obligation to periodically evaluate the ELD. The ELD has undergone a second evaluation⁽¹⁹⁹⁾, which will be finalised in 2025 and which was supported by an external study⁽²⁰⁰⁾, containing, among other things, evidence, views, reports and other relevant information gathered from different stakeholder groups, including Member States.

One of the most relevant indicators in assessing the implementation and enforcement of the ELD is the number of environmental damage cases handled under the directive, 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 trend in the number of ELD occurrences and the overall low number does not necessarily mean that the ELD has achieved its objectives, as it needs to be compared with the overall number of environmental damage cases that may have been handled under other liability instruments.

The ELD has not always been effective in ensuring that the polluter pays, because the liable operators often lack the 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 30 April 2013 to 31 December 2021, Portugal reported 23 occurrences of an imminent threat and two occurrences of environmental damage under the ELD. From 1 August 2008 to 31 December 2021, 184 occurrences of environmental damage were reported to the APA, of which 134 were not considered to be ELD occurrences, and consequently 23 were considered imminent threats, and 2 were considered environmental damage under the ELD. In the previous reporting period,

[0-PRE-ES-000001/fight-against-environmental-crime-at-a-strategic-level-through-the-strengthening-of-envicrimenet-network-of-experts-in-environmental-criminal-investigations](https://www.environmentalprosecutors.eu)).

⁽¹⁹⁶⁾ <https://www.environmentalprosecutors.eu>.

⁽¹⁹⁷⁾ <https://www.eufje.org/index.php?lang=en>.

⁽¹⁹⁸⁾ Directive 2004/35/EC of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage (OJ L 143, 30.4.2004, p. 56), <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02004L0035-20190626&qid=1568193390794&from=EN>.

⁽¹⁹⁹⁾ Commission staff working document - Evaluation of the Environmental Liability Directive, forthcoming 2025.

⁽²⁰⁰⁾ European Commission: Directorate-General for Environment and Fogleman, V., *Study in support of the evaluation of the Environmental Liability Directive and its implementation – Final report*, Publications Office of the European Union, Luxembourg, 2024, <https://op.europa.eu/en/publication-detail/-/publication/006d90e5-980a-11ef-a130-01aa75ed71a1/language-en>.

there were six occurrences of an imminent threat and two occurrences of environmental damage under the ELD. Portugal is among the few EU Member States that have an increase in occurrences between two reporting periods, and that have invested most heavily in developing training and methodologies to assist the ELD's implementation. Currently, Portugal is focusing on continuing to promote information and to raise awareness of obligations under the ELD, especially regarding financial guarantees.

Portugal has introduced mandatory financial security systems for ELD liabilities. In Portugal, operators of activities listed in Annex III to the ELD must have one or more financial security instruments to ensure their ability to carry out such activities, and there are no exceptions to the mandatory financial security requirement. The only type of insurance that satisfies mandatory financial security requirements for ELD liabilities in Portugal is an environmental insurance policy. Environmental insurance policies that provide cover for on-site and off-site ELD liabilities including complementary and compensatory remediation are widely available, but some policies limit cover for the costs of remediating on-site environmental damage to damage that begins and ends during a specified period of hours or days, that is, sudden and accidental pollution. Some policies have sub-limits for the costs of remediating pollution. Cover for ELD liabilities must be ring-fenced against other liabilities or responsibilities including any charges or other instruments that have a higher priority than them.

The APA has made available on its website a frequently asked questions document with guidance related to environmental liability, including mandatory financial security systems ⁽²⁰¹⁾.

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 ⁽²⁰²⁾ initiative to enhance

⁽²⁰¹⁾ APA, 'Environmental liability – Answers to frequently asked questions' (in Portuguese), https://apambiente.pt/sites/default/files/Avaliacao_Gestao_Ambiental/Responsabilidade_ambiental/FAQ_RA_Versao_2022_02.pdf.

⁽²⁰²⁾ See the European Commission web page on Compact (https://reform-support.ec.europa.eu/public-administration-and-governance-coordination/enhancing-european-administrative-space-compact_en).

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 ⁽²⁰³⁾ and the TAIEX-EIR PEER 2 PEER tool ⁽²⁰⁴⁾. 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 for Portugal:

- Development of a strategic plan for decarbonisation, digitization, and sustainable blue economy for the maritime and fisheries sectors and marine environment planning and sustainability from the Directorate-General for Natural Resources, Safety and Maritime Services (DGRM) (2022).
- Industrial ecosystems Government of Central Region and Government of Alentejo (2023).
- EU Taxonomy guidance for the tourism sector: directing tourism investments towards sustainable projects and activities, from Turismo de Portugal, I.P. (2023).
- Strengthening the centre of government's capacity to deliver on climate change and other high-level priorities through enhanced strategic planning, coordination and policy development, from the Competence Centre for Planning, Policy and Foresight in Public Administration (2023).
- Building policy coherence for sustainable development across national and local government in Portugal, from the Secretariat-General of the Presidency of the Council of Ministers (2023).
- Climate adaptation from the Agency for Integrated Rural Fire Management. (AGIF, I.P.) (2023).
- Implementing Effective Green Budgeting Practices from GPEARI (Gabinete de Planeamento, Estratégia,

⁽²⁰³⁾ See the European Commission web page on the TSI (https://commission.europa.eu/funding-tenders/find-funding/eu-funding-programmes/technical-support-instrument/technical-support-instrument-tsi_en).

⁽²⁰⁴⁾ See the European Commission web page on the TAIEX-EIR PEER 2 PEER tool (https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review/peer-2-peer_en). TAIEX: Technical Assistance and Information Exchange.

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The Commission's TAIEX-EIR PEER 2 PEER tool

In 2017, the Commission launched the TAIEX-EIR PEER 2 PEER tool ⁽²⁰⁵⁾ 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 are those requested by the Commission to present new and upcoming environmental legislation and policy in all Member States ⁽²⁰⁶⁾.

Workshops involving Portugal are as follows:

- Future challenges for air protection (24 November 2022) with the Czech Presidency.
- Making space for biodiversity: regional action to mainstream biodiversity and empower stakeholders (21–23 March 2023)
- Decentralised biowaste recycling in Austria (9–10 October 2023).
- Green budgeting at regional level (9 April 2024).
- Online platforms: EU Batteries, Packaging and Packaging Waste Regulations (28–29 October 2024).
- New aspects of cross-border cooperation against environmental crime (19–20 November 2024).
- Freight transport by rail (in relation to waste transport) (17–18 March 2025).

Portugal hosted a study visit on smart solutions for urban sustainability, environmental management and citizen engagement (9–10 January 2024) in Lisbon. Portuguese experts also participated in an expert mission in Latvia on nature-based solutions and climate action initiatives for Liepāja's smart city roadmap (24–26 July 2024).

In the 2022 EIR, Portugal received a priority action to improve its national environmental governance, in particular, its administrative capacity and coordination between the different levels of government. Portugal has

made limited progress in that respect, and the priority action is reiterated.

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.

⁽²⁰⁵⁾ European Commission, 'TAIEX-EIR PEER 2 PEER tool', European Commission website, https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review/peer-2-peer_en.

⁽²⁰⁶⁾ Flagship multi-country workshops in the reporting period are: Recast Drinking Water Directive (3 April 2025); Environmental compliance and governance (18 March 2025); Planning of Renewable Energy Projects (20 February 2025); Air Quality: Implementation of the revised Air Quality Directive (16 January 2025); Industrial safety: awareness raising of emerging risks linked with climate change and decarbonation (12 December 2024); Air quality: implementation of the NEC Directive to further mainstream air and broader pollution reduction in agricultural policy (25 September 2024); Industrial emissions transposition and implementation of the revised directive (12 September 2024);

Noise: progress towards meeting Member States' noise limit values and EU reduction targets (5 June 2024); Best practice use of environmental footprint methods on the EU market (30 May 2024); Sustainable finance (9 November 2023); Textile waste separate collection, treatment and markets (3 October 2023); EU environmental funding and support (13 June 2023); Advisory service for businesses to go circular (24 April 2023); Digital product passport implementation (6 December 2022); Public involvement in planning and approval of renewable energy projects (17 November 2022); Environmental compliance and governance (14 November 2022); Biowaste management (19–20 September 2022); and Renewable energy projects: permit granting processes (13 June 2022). NB: The first flagship workshop on zero pollution for air, water and soil took place 9 February 2022.

Annex

2025 priority actions
Circular economy
• Adopt measures to increase the circular material use rate. • Speed up the transition to a circular economy by implementing an updated national strategy and the EU framework and recommendations, in particular to complement it with upstream circularity measures.
Waste management
• Improve municipal waste preparation for reuse and recycling. • Increase the recycling rates of packaging waste. • Increase the collection and recycling rate of waste electronic and electric equipment (WEEE). • Invest in waste prevention measures to reduce the total amount of waste generated. • 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
<i>Global and EU biodiversity frameworks</i>
• Submit to the CBD an updated NBSAP or national targets following the adoption of the Kunming-Montreal Global Biodiversity Framework.
<i>Nature protection and restoration – Natura 2000</i>
• Complete the Natura 2000 site designation process. • 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).
<i>Recovery of species</i>
• 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.
<i>Recovery of ecosystems</i>
• Implement eco-schemes and agri-environmental measures and practices to address the environmental needs of Portugal.
<i>Marine ecosystems</i>
• Report its updates on the assessment of the state of its 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.
<i>Prevention and management of invasive alien species</i>

• Step up implementation of the IAS Regulation, including with regard to enforcement and capacity of inspection authorities.
Zero pollution
<i>Clean air</i>
• As part of the NAPCP, take action towards reducing emissions of air pollutants. • Ensure full compliance with the current AAQD standards, also in light of future stricter requirements under the revised AAQD. • Accelerate the ratification of relevant international conventions and protocols.
<i>Industrial emissions</i>
• Reduce industrial air pollution damage and intensity. • Reduce industrial releases to water, and their intensity. • Engage with industry and environmental NGOs to ensure proper contribution to and implementation of BAT conclusions; and ensure timely update of permits following publication of BAT conclusions. • Ensure effective public participation and access to justice in relation with the IED.
<i>Major industrial accidents prevention – Seveso</i>
• Strengthen compliance with requirements on safety measures to prevent major accidents and ensure appropriate preparedness and response for UTEs, in particular as regards review, testing and update of EEPs, at intervals of no longer than three years. • Ensure access to transparent and clear information towards citizens on risks and behaviour in case of accidents.
<i>Noise</i>
• Complete noise mapping. • Complete and implement action plans on noise management.
<i>Water quality and management</i>
• Tackle nutrients pollution, especially nitrates from agriculture through the implementation of the Nitrates Directive. • Take the necessary measures to ensure full implementation of the current Urban Wastewater Treatment Directive, taking into account the new requirements of the recast Directive.
<i>Chemicals</i>
• 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 REF projects. • Increase customs controls and controls of products sold online with regard to compliance with chemicals legislations.
Climate action
• Implement all policies and measures that are needed to achieve targets laid down in the Effort Sharing Regulation (ESR) and the Land Use, Land Use Change and Forestry (LULUCF) Regulation. More detailed priority actions are set up 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.
- Ensure that relevant information on EIA and SEA procedures (including on public participation opportunities and on publication of final decisions) is electronically accessible in a timely manner, through at least a central portal or easily accessible points of access, at the appropriate administrative level.
- Provide information on the average duration of all steps in the EIA process.
- Improve access to courts in national environmental cases by the public concerned and eliminate practical barriers, such as length of proceedings and excessive costs.

Compliance assurance

- 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

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