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COMMISSION STAFF WORKING DOCUMENT

2025 Environmental Implementation Review
Country Report - HUNGARY

Accompanying the document

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

2025 Environmental Implementation Review for prosperity and security

{COM(2025) 420 final} - {SWD(2025) 300 final} - {SWD(2025) 301 final} - {SWD(2025) 302 final} - {SWD(2025) 303 final} - {SWD(2025) 304 final} - {SWD(2025) 305 final} - {SWD(2025) 306 final} - {SWD(2025) 307 final} - {SWD(2025) 308 final} - {SWD(2025) 309 final} - {SWD(2025) 310 final} - {SWD(2025) 311 final} - {SWD(2025) 313 final} - {SWD(2025) 314 final} - {SWD(2025) 315 final} - {SWD(2025) 316 final} - {SWD(2025) 317 final} - {SWD(2025) 318 final} - {SWD(2025) 319 final} - {SWD(2025) 320 final} - {SWD(2025) 321 final} - {SWD(2025) 322 final} - {SWD(2025) 323 final} - {SWD(2025) 324 final} - {SWD(2025) 325 final} - {SWD(2025) 326 final}

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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 on environmental legal implementation in Hungary. 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 Hungary, such challenges have been lingering since the first EIR in 2017 and require urgent action.

Significant efforts are needed in the area of **circular economy** for Hungary to increase circular material use rate and resource productivity and to reach EU averages. Urgent reforms and investments in **waste management** should focus on diverting municipal and construction waste from landfilling and improving recycling in Hungary. While some measures have been taken to improve waste management since the 2022 EIR, the latest trends for waste are concerning in Hungary. The landfilling rate is increasing, while the recycling rate is decreasing and remains below the EU average. Hungary missed the 2020 target to recycle 50 % of its municipal waste by a great margin and is on a course to miss the 2025 targets of 55 % recycling of municipal waste and 65 % recycling of all packaging waste.

Biodiversity and nature is deteriorating in Hungary, and reinforced actions are needed to restore habitats and species, in particular practices to support the transition to sustainable agriculture.

The **air quality** in Hungary continues to give serious cause for concern. While some emissions have decreased in Hungary, persistent breaches of air quality requirements remain, with severe negative effects on human health and the environment. Hungary should take urgent actions to reduce pollution from all sources.

Reforms and investments in **water management** are increasingly needed in Hungary. Waterbodies are still exposed to significant pressures from human activities and agriculture, with negative implications for human health, water quality and quantity, nature conservation, and climate adaptation. More actions should be taken to implement green infrastructures and nature-based solutions. There is also an urgent need to upgrade water utilities. Drinking water quality remains a serious source of concern in specific areas in Hungary, while more than 31 % of the urban waste water collected in the country is not being properly treated as required by EU law.

The overall **environmental investment need** to enable Hungary to meet its objectives in the main environmental areas is almost EUR 5.9 billion per year, broken down as follows: circular economy, EUR 1.6 billion; biodiversity and ecosystems, EUR 1.5 billion; pollution prevention and control, EUR 1.5 billion; and water, EUR 1.3 billion. To meet its four environmental objectives beyond climate change, the additional investment need over the current levels – **the environmental gap** – reaches an estimated EUR 2.4 billion per year in Hungary, representing around 1.43 % of the national gross domestic product, being significantly higher than the EU average (0.77 %).

Several aspects of **environmental governance** should be improved in Hungary, notably to ensure the compliance of environmental procedures with legislation, guarantee access to justice on environmental matters and increase administrative capacities regarding environmental policies.

On the **positive side**, since the last EIR, some areas show progresses in Hungary. For instance, in 2023, Hungary has reported adopting all management plans containing the conservation measures for the Natura 2000 sites. Hungary has also made some progress and should continue its efforts to map and assess ecosystems and their services.

([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]) measures either in place or legislatively advanced, Member States will now have to focus on a swift and effective implementation.

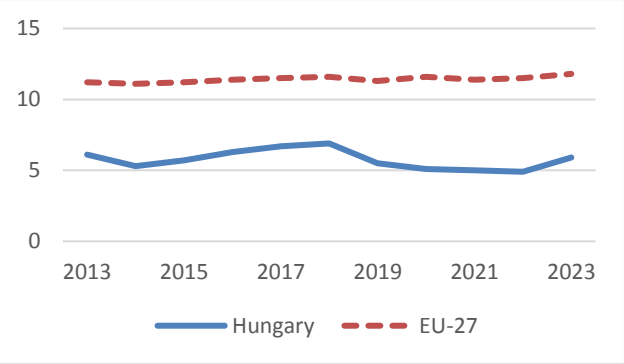
The 2020 CEAP launched the legislative process for a set of initiatives that will now have to be implemented by national governments across the EU. These initiatives were all introduced following a holistic life-cycle approach, with measures addressing the different stages of a product's life cycle,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

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

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

Hungary's circular use of material decreased by 1 percentage point between 2018 and 2023, reaching 5.9 % in 2023 (Figure 1). This is well below the EU average of 11.8 %.

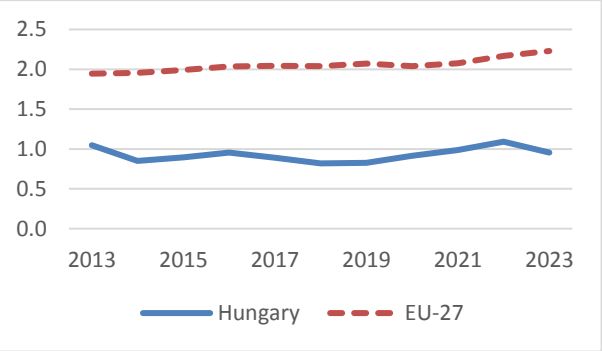
Figure 1: CMUR (%), 2013–2023



Source: Eurostat, 'Circular material use rate', env_ac_cur, last updated 13 November 2024, accessed 9 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. As shown in Figure 2, with EUR 0.95 generated per kg of material consumed in 2023, resource productivity in Hungary is well below the EU average of EUR 2.23 per kg, and the gap between the two has been widening.

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.

Source: Eurostat, 'Resource productivity', env_ac_rp, last updated 7 August 2024, accessed 9 December 2024, https://ec.europa.eu/eurostat/databrowser/product/view/env_ac_rp.

([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.

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.

In April 2024, the Organisation for Economic Co-operation and Development (OECD) published a paper ([5]) underlining the potential and the need for a circular economy framework in Hungary. Policy recommendations, priority sectors and cross-cutting tools are identified in the study. The three priority areas of the report are biomass and food, construction and plastics.

Following up on the findings of this study, dedicated funding allocated by the EU in 2019 and the first policy proposal in 2018, a national circular economy strategy is being developed but has not been adopted yet. However, as highlighted in the OECD study, Hungary has embedded circular economy principles within several key national strategic frameworks, including the national development plan ([6]), the national framework strategy for sustainable development ([7]) and the fifth national environmental programme ([8]). These initiatives promote sustainable resource use, environmental protection and economic benefits, including reduced resource dependency, enhanced competitiveness and job creation.

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.

Hungarian public procurement rules are laid down in the Public Procurement Act (Act CXLIII) of 2015. It allows public authorities to take environmental aspects into account during their public procurement procedures, but its application is not mandatory.

The green public procurement national action plan (2022–2027) sets the goal that, by 2027, the number of domestic public procurements containing green aspects will reach at least 30 % of the total number of public procurements. The strategy also provides for some sector-specific regulations, in relation to some products and product groups, applying a different (higher, even 100 %) target.

The Public Procurement Authority informs stakeholders of the possibilities of green and socially responsible procurement and current trends in EU legislation and policies. The authority also organises training, collects green statistics and is involved in green procurement projects. The development of green public procurement is also supported by initiatives co-financed by national and EU funds (e.g. the 'Green bus' programme).

The EU Ecolabel and the eco-management and audit scheme

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

As of September 2024, Hungary has 82 products out of 98 977, and 7 licences out of 2 983 registered in the EU Ecolabel scheme. This shows low take-up, particularly for licences, and indicates slight decreases since the 2022 report ([9]). Moreover, the number of organisations (27)

([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]) OECD, *Towards a National Circular Economy Strategy for Hungary*, OECD Publishing, Paris, 2023, https://doi.org/10.1787/1178c379-en.

([6]) Government of Hungary, *Nemzeti Fejlesztés 2030 – Országos Fejlesztési és Területfejlesztési Koncepció*, Budapest, 2014.

([7]) National Council for Sustainable Development, *National Framework Strategy on Sustainable Development of Hungary*, Budapest, 2013, https://www.parlament.hu/documents/127649/4101265/NFFT-ENG-web.pdf/f692c792-424d-4f5a-9f9d-9e6200303148?t=1580130885736.

([8]) Government of Hungary: Ministry of Energy, *5. Nemzeti Környezetvédelmi Program*, Budapest, 2020, https://stip.oecd.org/stip/interactive-dashboards/policy-initiatives/2023%2Fdata%2FpolicyInitiatives%2F99995825.

([9]) European Commission, 'Ecolabel facts and figures', European Commission website, accessed September 2024, https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel/businesses/ecolabel-facts-and-figures_en.

from Hungary currently registered in EMAS has not increased since October 2021 ([10]).

In 2022, Hungary received a priority action to adopt measures to increase the CMUR. Since then, Hungary's CMUR has increased by 1.0 percentage point (as of 2023). This represents some progress towards the 2022 priority action to take measures to increase the CMUR, but Hungary should continue its efforts. Hungary also received a priority action to strengthen the policy framework to speed up the transition to a circular economy in all economic sectors, including priority sectors such as plastics, textiles and construction. Some progress has been made but, as Hungary has not adopted a national circular economy strategy yet, the action is repeated.

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:

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

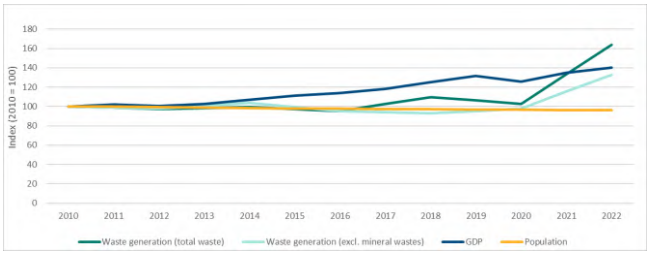
One of the main objectives of the EU Waste Law is to decouple economic growth from its environmental impacts.

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

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

Hungary saw a significant increase in waste generation over 2010–2022 (Figure 3), mainly driven by mineral and solidified waste, mixed waste and recyclable waste. Overall, there appears to be no decoupling of waste generation from economic growth.

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



NB: Waste generation data for odd years are interpolated.

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

Critical raw materials

Hungary does not seem to have any specific policy on CRMs.

Construction and demolition waste

Construction and demolition waste accounts for almost 40 % of all waste generated in the EU. A recent study ([11])

([10]) As of October 2024. European Commission, 'Eco-management and audit scheme (EMAS)', European Commission website, November 2021, http://ec.europa.eu/environment/emas/emas_registrations/statistics_graphs_en.htm.

([11]) European Commission: Joint Research Centre, Cristobal Garcia, J., Caro, D. et al., *Techno-economic and environmental assessment of construction and demolition waste management in the European Union*, Publications Office of the European Union, Luxembourg,

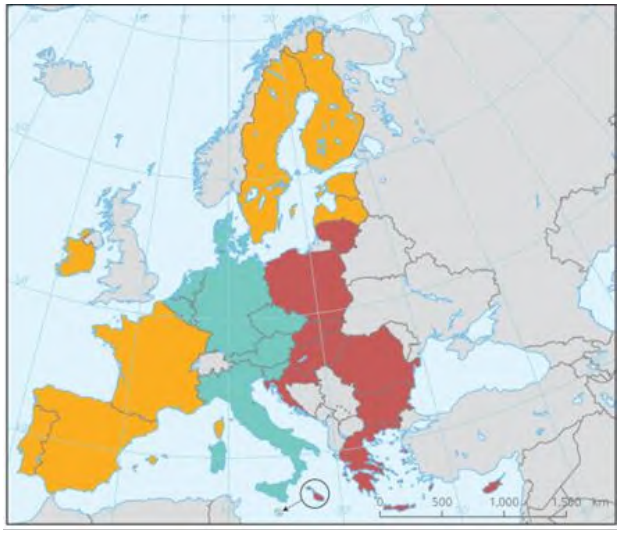
by the Joint Research Centre shows that recycling and preparation for reuse are preferred over incineration and landfilling from an environmental perspective for most of the different streams of construction and demolition waste. However, the economics are often unfavourable for recycling and preparation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

The rate of recycling and preparation for reuse of mineral construction and demolition waste in Hungary in 2022 was 22.2.%, compared with the EU average of 79.8 %. Measures to further increase the rate of recycling and preparation for reuse of construction and demolition waste include separate collection at the source – for instance, through digitalised pre-demolition audits ([12]) ('resource assessments'); extended producer responsibility (EPR) and other economic instruments; and upstream measures such as increasing the recycled content in construction products and the circular design ([13]) of construction works.

Boosting implementation – the 2023 *Waste Early Warning Report*

This section focuses on the management of municipal waste ([14]), for which EU law sets mandatory recycling targets. In June 2023, the Commission published the *Waste Early Warning Report* ([15]) identifying the general trends in waste management and the Member States at risk of missing 2025 waste targets (see Figure 4). Hungary is at risk of missing both the municipal waste target and the packaging waste target. Hungary is also at risk of not meeting the 2035 target of having 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 the 55 % preparing for reuse and recycling target for municipal waste and the 65 % recycling target for packaging waste
- Member States at risk of missing the preparing for reuse and recycling target for municipal waste but not at risk of missing the recycling target for packaging waste
- Member States at risk of missing both targets
- Outside coverage

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

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

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

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

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

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

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

2025 targets, 11 Member States, including Hungary, have used this prerogative.

On 22 December 2023, Hungary notified the Commission of its intention to postpone the attainment of the preparing for reuse and recycling target for municipal waste established by the Waste Framework Directive for 2025. In addition, Hungary notified the Commission of its intention to postpone the attainment of the recycling target for plastic and glass packaging waste established by the Packaging and Packaging Waste Directive for 2025. Attached to these notifications, Hungary 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 Hungary will put in place include the introduction of a 35-year concession system, the introduction of an EPR system and the use of awareness-raising campaigns. The Commission found that the plan submitted does not comply with the requirements set out in the relevant waste legislation ([16]).

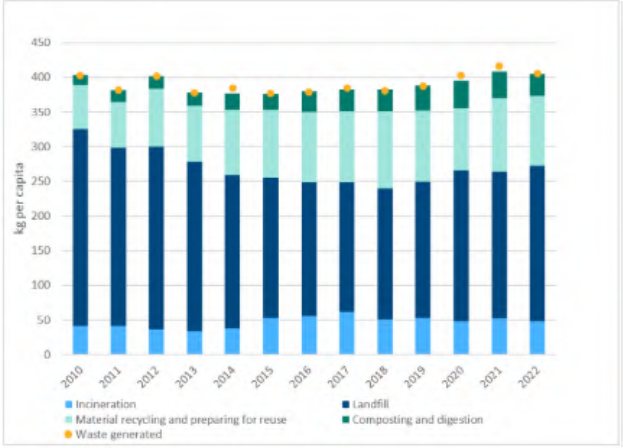
In the *Waste Early Warning Report*, the Commission recommended that Member States accelerate their efforts to improve their recycling performance. The Commission is, on one hand, working together with the national authorities and stakeholders to speed up the implementation of measures necessary to meet the targets, including through dedicated financing. On the other hand, the Commission is pursuing enforcement actions against those Member States that, based on data submitted to the Commission, do not achieve the targets of the Waste Framework Directive ([17]), the Packaging and Packaging Waste Directive ([18]) and the Directive on Waste Electrical and Electronic Equipment (WEEE) ([19]).

Municipal waste

After a limited decrease between 2010 and 2015, municipal waste generation in Hungary increased slightly and reached 407 per capita in 2022, still below the EU average in the same year (515 kg per capita) (see Figure 5).

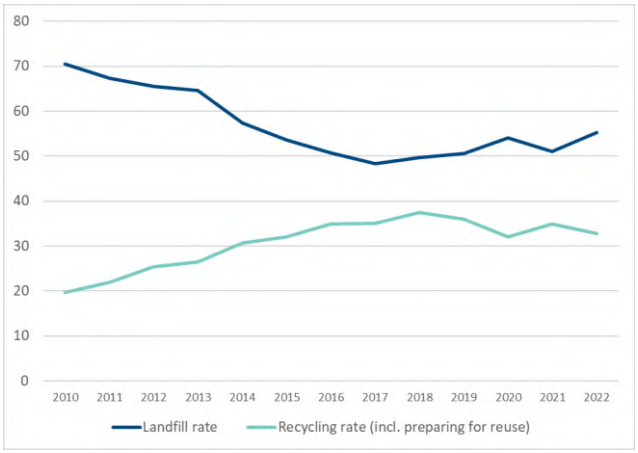
Hungary has also reported data to show compliance with the preparing for reuse and recycling target of 55 % for 2025, as set out in the Waste Framework Directive. The difference between these (provisional) data, following the reporting obligation of the Waste Framework Directive, and the data shown in Figure 5 (voluntary reporting) was less than 1 percentage point for the preparing for reuse and recycling rate in 2021. The 2022 data under this reporting obligation are not available yet.

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.

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



NB: As of reference year 2020, new reporting rules apply to calculating recycled municipal waste pursuant to the targets laid down in Article 11(2)(c–e) of Directive 2008/98/EC.

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.

The recycling rate for municipal waste in Hungary reached 33 % in 2022, which is significantly below the estimated

([16]) Commission Decision C(2024) 1974.

([17]) Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02008L0098-20180705.

([18]) European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (OJ L 365, 31/12/1994, p. 10–23), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01994L0062-20180704.

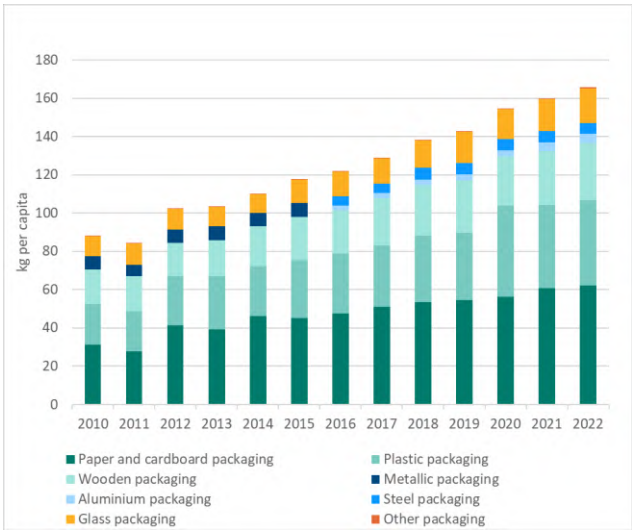
([19]) Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (OJ L 197, 24.7.2012, p. 38), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32012L0019.

EU-27 average of 49 % in the same year ([20]). This is mainly driven by material recycling, as Hungary has low rates of composting and anaerobic digestion.

Incineration plays a minor role in Hungary, with only 12 % of the generated municipal waste incinerated in 2022. There is still a significant share of municipal waste landfilled.

Packaging waste

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.

Hungary's packaging waste generation has increased significantly since 2010 (Figure 7). The country generated 166 kg per capita in 2022, which is significantly below the estimated European average of 186 kg per capita in the same year ([21]).

Hungary's overall packaging waste recycling rate has stagnated since around 2012. In 2022, the overall packaging waste recycling rate was 45 %. The recycling rate is mainly driven by paper and cardboard and plastic packaging waste, as these constitute the largest shares of generated packaging waste. Due to the high share of plastic in total packaging waste and its low recycling rate, a specific focus will be needed on increasing plastic recycling to meet the targets for plastic and overall packaging.

Figure 8: Packaging waste recycling rates, 2010–2022

NB: As of reference year 2020, the rules for calculating recycled packaging waste have changed, pursuant to Article 6(a) of Directive 94/62/EC. Hungary has applied the new reporting rules since reference year 2020 (Ministry of Energy, 2024, Information provided during the Eionet review of the draft EEA country profile on waste management for Hungary).

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

Policies to encourage waste prevention

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

Hungary's national waste prevention programme is integrated into the national waste management plan for 2021–2027 ([22]). The prioritised waste streams for prevention measures are municipal waste, industrial waste, non-hazardous agricultural waste, food waste, construction and demolition waste, hazardous waste and biodegradable waste. One focus area is promoting reuse practices.

Policies to encourage separate collection and recycling

Hungary applies a pay-as-you-throw system that is based on container size and collection frequency. The nationwide deposit return system started with an introduction phase and has been fully operational since 1 July 2024. The system covers single-use plastic beverage bottles, glass beverage bottles and metal beverage cans,

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

([21]) 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.

([22]) European Environment Agency (EEA), *Waste Prevention Country Profile – Hungary*, Copenhagen, 2023, https://www.eea.europa.eu/themes/waste/waste-prevention/countries/2023-waste-prevention-country-fact-sheets/hungary_waste_prevention_2023.

and also covers the return of refillable beverage packaging. Hungary levies product fees on certain packaging materials. These fees can be seen as a packaging tax ([23]). In July 2023, Hungary introduced new separate EPR fees based on collection and treatment costs (no modulation). The environmental product fee remained as a green tax levied on some products.

Policies to discourage landfilling or incineration

Hungary has had a landfill levy since 2014 of HUF 6 000/t (EUR 15.13/t in June 2022). The levy is lower than the average EU-27 landfill tax. There has been a ban on landfilling untreated municipal waste since 2022 and a partial ban on landfilling organic waste since 2003.

Hungary has no incineration tax in place and there is no tax on waste exported for incineration. To be able to drastically decrease the landfill rate and achieve the landfill target, Hungary plans to increase the energy recovery of residual municipal waste ([24]).

Hungary is among the 26 Member States subject to an infringement proceeding ([25]) for failing to meet the waste collection and recycling targets set out in the Waste Framework Directive ([26]), the Packaging and Packaging Waste Directive ([27]) and the Directive on WEEE ([28]). In November 2024, the Commission launched infringement proceedings against Hungary for incorrectly transposing the Waste Framework Directive and the Landfill Directive.

In 2022, Hungary received priority actions to (i) gradually increase landfill taxes to phase out landfilling of recyclable and recoverable waste, and use the revenues for measures that improve waste management, in line with the waste hierarchy; (ii) focus on making separate collection obligatory to increase recycling rates, including the collection of biowaste, and develop and implement minimum service standards and support programmes for municipalities; and (iii) improve the functioning of EPR systems, in line with the general minimum requirements on EPR ([29]).

Hungary has not yet ratified the Hong Kong Convention on Ship Recycling.

In terms of progress since the 2022 environmental implementation review (EIR) ([30]), Hungary has made:

- no progress regarding increasing landfill taxes to phase out landfilling of recyclable and recoverable waste: landfill rates have stagnated and over half of municipal waste is still landfilled;
- some progress regarding separate collection, as several measures have been recently introduced, including a deposit return scheme for beverage packaging, while there is no progress regarding the development and implementation of minimum service standards and support programmes for municipalities;
- some progress regarding the EPR systems through the introduction of EPR fees, in line with the general minimum requirements on EPR.

2025 priority actions

- Implement, harmonise and gradually increase landfill taxes to phase out landfilling of recyclable and recoverable waste.
- Ratify international conventions on ship recycling.
- Improve separate collection at source e.g. through economic instruments, investing in infrastructure for separate collection, sorting and recycling, and increasing public awareness.
- Increase reuse of products and scale up waste recycling infrastructure associated with the higher steps of the waste hierarchy. In particular, improve collection and increase treatment capacity for bio-waste.
- Improve municipal waste preparation for reuse and recycling.
- Increase the recycling rates of packaging waste.
- Increase the collection and recycling rate of WEEE.
- Invest in waste prevention measures to reduce the total amount of waste generated.
- Develop EPR schemes for problematic waste and introduce fee modulation.
- Ensure the achievement of the 2025 waste targets, following the recommendations made by the

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

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

([25]) See European Commission, 'July infringement package: Key decisions', European Commission website, 25 July 2024, https://ec.europa.eu/commission/presscorner/detail/en/inf_24_3228.

([26]) 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), as amended.

([27]) European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (OJ L 365, 31.12.1994, p. 10), as amended.

([28]) Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) (OJ L 197, 24.7.2012, p. 38), as amended.

([29]) Set out in Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste (OJ L 150, 14.6.2018, p. 109).

([30]) Commission staff working document – Environmental implementation review 2022: Country report – Hungary, SWD(2022) 268 final of 8 September 2022, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=comnat%3ASWD_2022_0259_FIN.

Commission in the early warning reports where applicable.

2. Biodiversity and natural capital

Global and EU biodiversity frameworks

Biological diversity and healthy ecosystems are critical for our societies, underpin our economies and well-being and are essential for climate change adaptation and mitigation. The Kunming–Montreal global biodiversity framework (GBF), adopted in December 2022, sets comprehensive and measurable targets to tackle biodiversity loss by 2030. To implement this global framework and integrate biodiversity considerations into national decision-making, the EU – as well as all Member States – had to submit national biodiversity strategies and action plans (NBSAPs), or to communicate national targets aligned with the global targets, by the end of 2024. The EU biodiversity strategy for 2030 (BDS) aims to put EU biodiversity on a path to recovery by 2030. It sets quantified targets intended to protect and restore nature and manage ecosystems in a sustainable manner, as well as measures to enable implementation and commitments to support global biodiversity. A BDS actions tracker ([31]) and a dashboard of indicators ([32]) provide information on implementation progress. The recently adopted EU Nature Restoration Regulation ([33]) is the first EU-wide, comprehensive law of its kind and a key instrument for the EU to deliver on the global biodiversity targets for 2030. It lays down an overarching objective at the EU level to put in place effective restoration measures on 20 % of EU land and sea by 2030 and for all ecosystems in need of restoration by 2050. To achieve this, it sets binding targets for Member States to restore and maintain ecosystems, as well as an effective implementation framework based on national restoration plans.

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

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

Hungary's national biodiversity strategy for 2030 ([34]) was approved and published by the Hungarian government on 8 August 2023 ([35]), following an extensive participatory process with the engagement of government agencies, experts and stakeholders across sectors and policy areas.

The strategy translates the EU and global biodiversity targets into Hungary's national context. It identifies 19 key objectives for 2030 in three strategic areas: (i) reducing threats to biodiversity; (ii) sustainable use of biodiversity and benefit-sharing; and (iii) tools and solutions supporting implementation. Each national objective includes several targets (50 in total), with more than 300 implementation measures and corresponding indicators. In 2024, Hungary also uploaded its national targets to the Convention on Biological Diversity's online reporting tool ([36]).

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

Nature protection and restoration – Natura 2000

Natura 2000 ([37]), 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

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

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

([33]) 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).

([34]) https://www.biodiv.hu/en/convention-on-biological-diversity/national-biodiversity-strategy-for-2030.

([35]) https://kormany.hu/hirek/elfogadtak-a-3-nemzeti-biodiverzitas-strategiat.

([36]) https://ort.cbd.int/national-targets?countries=hu.

([37]) 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.

sites of community importance (SCIs) as special areas of conservation (SACs) ([38]); and (iii) effective management of all Natura 2000 sites through the setting of site-specific conservation objectives and measures.

Setting up a complete and coherent network of Natura 2000 sites

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

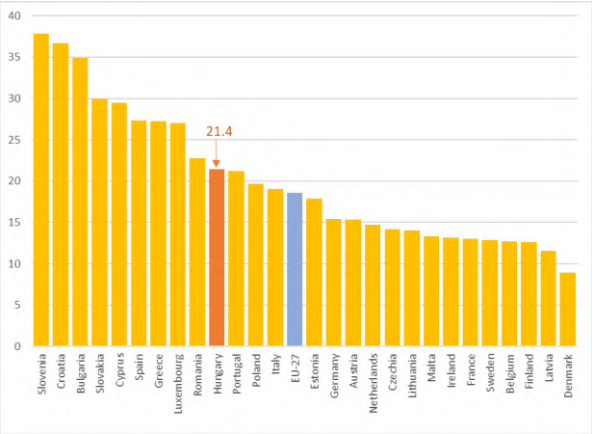
Meeting these commitments requires the full implementation of Article 3 of the Habitats Directive. The Natura 2000 network should represent a complete and coherent ecological network composed of sites hosting natural habitat types and species of community interest. Natura 2000 will enable the natural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

Hungary hosts 45 habitat types ([39]) and 212 species ([40]) covered by the Habitats Directive. The country also hosts populations of 88 bird taxa listed in the Birds Directive Annex I ([41]).

As shown in Figure 9, in 2023, 21.4 % of Hungary's territory was covered by Natura 2000 (EU coverage: 18.6 %), with special protection areas (SPAs) classified under the Birds Directive covering 14.8 % (EU coverage: 12.8 %). This overlapped to a large degree with the SCIs under the Habitats Directive, which covered 15.5 % of Hungarian territory (EU coverage: 14.3 %).

Considering both areas covered by Natura 2000 and other nationally designated protected areas, Hungary legally protects 22.2 % of its terrestrial areas (EU-27 coverage: 26.1 %) ([42]) and strictly protects 1.28 % of the EU's protected areas, as classified under the International Union for Conservation of Nature (categories 1A and 1B).

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.

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. Such site-specific conservation should define attributes and targets that describe the habitats or species' condition as favourable or unfavourable, addressing key pressures and threats . Under Article 6 of the Habitats Directive Member States must establish and implement measures to achieve these objectives. Article 6 of the Habitats Directive requires Member States to establish and implement conservation measures for the realisation of the objectives of the site.

In 2016, an EU pilot investigation was launched by the Commission following an assessment that the site-specific measures and objectives in Hungary were not fully in line with the related EU guidance. Since then, Hungary has designated all SCIs as SACs and, by early 2024, had adopted management plans and site-specific

([38]) 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.

([39]) EEA, 'Number of habitats and species per Member State', Article 17 dashboard, Annex I total, 19 December 2019, https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/article-17-national-summary-dashboards/general-information-on-habitats-and-species.

([40]) EEA, 'Number of habitats and species per Member State', Article 17 dashboard, 19 December 2019, https://www.eea.europa.eu/themes/biodiversity/state-of-nature-in-the-eu/article-17-national-summary-dashboards/general-information-on-habitats-and-species. This counting only takes into account species and habitats for which assessment of conservation status was requested.

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

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

conservation measures and objectives (pending assessment) for all SAC and SPA sites.

In the 2022 EIR, Hungary received priority actions to complete and adopt the management plans for all Natura 2000 sites and finalise the revision of the conservation measures and site-specific conservation objectives to bring them in line with Commission guidance. Under the EU pilot investigation, Hungary reported adopting all the management plans containing the conservation measures for the Natura 2000 sites on 4 August 2023; the plans were published on the official website. Hungary reported completing all target documents containing the conservation objectives on 12 February 2024.

2025 priority action

- Ensure the effective implementation of Natura 2000 management plans and sufficient administrative capacity and financing both for Natura 2000 and the implementation of the Nature Restoration Regulation. Ensure implementation of Prioritised Actions Framework 2021-2027 (PAFs).

Recovery of species

One objective set by the BDS is that, by 2030, there should be no further deterioration in conservation trends or the status of any protected species. The BDS also states that Member States should ensure that at least 30 % of species not currently in favourable conservation status achieve that status or show progress towards doing so (e.g. by exhibiting positive population dynamics or stable or increasing range and habitat size), by 2030. According to the European Environment Agency (EEA), based on reporting required under Article 17 of the Habitats Directive, a quarter of species in the EU were of good conservation status as of 2018 ([43]).

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

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

Hungary has submitted its report on the conservation status of habitats and species covered by Article 17 of the Habitats Directive. Between 2013 and 2018, the share of assessments for habitats reporting good conservation status was 13.33 %. This is less than in the previous reporting period (2007–2012), when the share was 19.57 %. For protected species, the share of assessments indicating good conservation status was 34.91 % in 2013–2018, down from the 35.89 % reported in the previous reporting period (2007–2012). Less than 8 % of the assessments ([44]) for forest habitats listed under Article 17 of the Habitats Directive show a favourable conservation status ([45]). For birds, 51 % of the breeding species showed short-term increases or stable population trends (despite the previously increasing trend, the share dropped from 19 % in the previous reporting period to 14 %). For key wintering species, 21.05 % showed short-term increases or stable population trends.

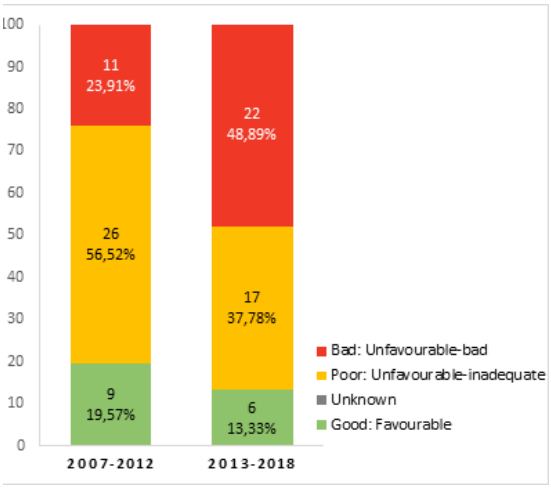
At the same time, the share of habitats in bad conservation status increased to 48.89 %, and the share of species in bad conservation status also increased, rising to 11.79 %. The main pressures on habitats come from natural processes, agriculture and climate change. As Hungary is mainly covered with natural and semi-natural grasslands, agriculture is a significant pressure overall. Meanwhile, the main pressures on species come from agriculture, climate change and forestry.

([43]) EEA, https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020*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.

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

([45]) European Commission: Directorate-General for Environment, *The State of Nature in the EU – Conservation status and trends of species and habitats protected by the EU Nature Directives 2013–2018*, Publications Office of the European Union, Luxembourg, 2021, https://op.europa.eu/en/publication-detail/-/publication/e733191f-5c65-11eb-b487-01aa75ed71a1.

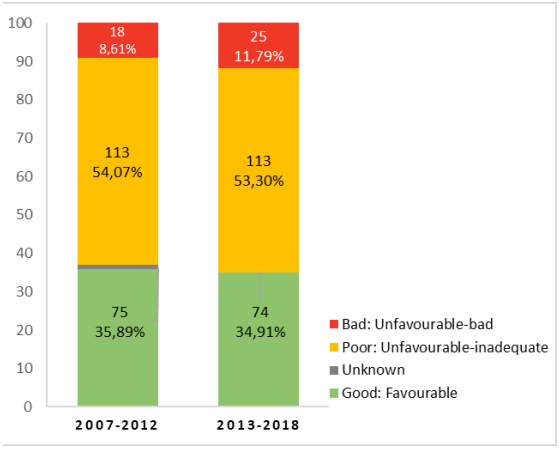
Figure 10: Assessments of conservation status of habitats for the 2007–2012 and 2013–2018 reporting periods



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

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

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 conservation status in a Member State may result from changes to methods or use of better data, rather than reflecting genuine changes.

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

2025 priority actions

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

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

The CAP and national CAP strategic plans 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

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

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 the ecosystems, the impact of these measures is difficult to assess, as the uptake of the eco-schemes is voluntary for farmers.

The utilised agricultural area in Hungary increased from 5 338 020 ha in 2012 to 5 352 280 ha in 2017, but then decreased to 5 081 050 ha in 2022 ([47]).

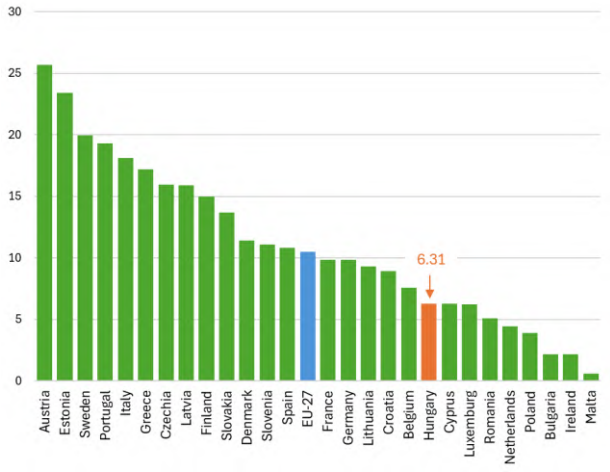
Landscape features are small fragments of non-productive and typically – but not exclusively – semi-natural vegetation present in or adjacent to agricultural land. They provide ecosystem services and support for biodiversity. The indicator 'share of agricultural land covered with landscape features' is the ratio between the area covered by landscape features and the area covered by agricultural land. Based on the Land Use/Cover Area Frame Survey landscape features estimates, the share of agricultural land covered by non-productive landscape features in Hungary is 4.1 %, below the EU average. At the EU level, landscape features cover 5.6 % of agricultural land.

In 2024, the CAP basic regulations were amended ([48]) regarding, inter alia, the standards for good agricultural and environmental condition of land. These changes removed the obligation for farmers benefiting from CAP area-related support to have a minimum share of 3–4 % of non-productive area or landscape features in their farms. However, the amended regulations set out an obligation for Member States to establish and provide support for eco-schemes covering practices for the maintenance of non-productive areas, such as land lying fallow, and for the establishment of new landscape features, on arable land.

The recently adopted Nature Restoration Regulation ([49]) focuses on the restoration of agricultural ecosystems and requires Member States to put in place measures that aim to achieve an increasing trend at the national level in at least two out of three indicators for agricultural ecosystems ([50]). One of these indicators is the 'share of agricultural land with high-diversity landscape features'.

Organic farming practices are highly beneficial to biodiversity. As shown in Figure 12, it is estimated that only 6.31 % of Hungary's land area is used for organic farming. This is lower than the EU average of 10.50 % ([51]). Hungary is currently contributing less than average to achieving the target of 25 % of the EU's agricultural land being used for organic farming by 2030.

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



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

In 2022, Hungary received a priority action to ensure that land used for organic farming significantly contributes to the 25 % target of the EU's agricultural land being used for organic farming by 2030. While the trend is positive, Hungary is still among the Member States with the lowest share of organic farming. Therefore, this priority action is reiterated in the 2025 EIR to encourage Hungary to increase its contribution to the 2030 target.

In the 2022 EIR, Hungary also received priority actions to decrease the pressure on habitats and species (including birds), in particular from agriculture, which is the most

([47]) 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.

([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.

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

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

significant pressure on nature and biodiversity; and to step up efforts to implement the recommendations set out in Hungary's CAP SP, especially those on improving rural areas. The available data do not allow for the assessment of potential progress in this field. Hungary will also need to step up its conservation and restoration efforts to meet the ambitions of the new regulation.

2025 priority actions

- Implement eco-schemes and agri-environmental measures and practices to address the environmental needs of Hungary.
- Implement and scale up the uptake of organic farming practices.
- Promote the active management of grasslands through extensive grazing to maintain the condition of these semi-natural habitats.

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 Hungary ([53]).

The greatest contributor to Hungary's unhealthy soils is the loss of soil organic carbon in mineral soils ([54]), which affects 41 % of the land, representing 70 % of cropland and grassland areas. Intensive agriculture practices are one of the main pressures on soil health. 24 % of the national territory experiences unsustainable soil erosion by water, wind, tillage and harvest, and 14 % of the national territory has a high or very high susceptibility to topsoil compaction.

In the 2022 EIR, Hungary received a priority action to remediate degraded areas of soil and consider formally committing to land degradation neutrality targets under the United Nations Convention to Combat Desertification (UNCCD). According to Hungary's national report to the UNCCD, Hungary has not set an LDN target yet ([55]). Therefore, the priority action is repeated.

2025 priority action

- Reduce the excessive area of sealed and artificialised soil and remediate degraded areas of soil. If appropriate, consider formally committing to targets for land-degradation neutrality under the relevant United Nations Convention to Combat Desertification agreement.

([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.

([54]) De Rosa, D., Ballabio, C., Lugato, E. et al., 'Soil organic carbon stocks in European croplands and grasslands: How much have we lost in the past decade?', *Global Change Biology*, Vol. 30, No 1, 2023, e16992, https://doi.org/10.1111/gcb.16992.

([55]) UNCCD, Hungary country report 2022 (PRAIS4), 15 February 2023, p.14, https://www.unccd.int/our-work-impact/country-profiles/hungary#:~:text=Hungary%20country%20report%202022%20(PRAIS4); UNCCD, Voluntary LDN targets, accessed on 4 March 2025, https://www.unccd.int/our-work/country-profiles/voluntary-ldn-targets.

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.

Hungary hosts 12 grassland habitat types, of which 6 are priority habitats ([56]). All grassland habitats were and continue to be in unfavourable conservation status, with no marked improvements since the last reporting period and bleak future prospects. Abandonment has long been a major cause of the degradation of grassland habitats (together with land-use change).

Wetlands/peatlands

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

Hungary, as a land-locked country, hosts five bog, mire and fen habitat types, of which three are priority habitats ([57]); one coastal and halophytic habitat (Pannonic salt steppes and salt marshes); and five freshwater habitats. Most of these are in unfavourable conservation status, with no significant improvements since the last reporting period or expected in the future except for habitat type 7210 (Calcareous fens).

Wetlands were mainly affected by change in floodplains, inadequate flood management programmes, riverbed alterations and water drainage. Climate change, and thus changes in hydrology and droughts, is also becoming an increasingly important pressure.

Forest ecosystems

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

Several Commission guidelines on forestry management were published in 2023. They covered 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 ([58]) that aims to create a comprehensive forest knowledge base, address information gaps and enable a better response to growing pressures on forests.

Assessments show that, of the 27 % of EU forest area protected under the Habitats Directive, less than 15 % is of favourable conservation status ([59]). The share of forested areas in the EU with a bad conservation status increased from 27 % in 2015 to 31 % in 2018.

Hungary hosts 13 forest habitat types, of which 5 are considered priority habitats ([60]). In Hungary, forests

([56]) These are 6110 (rupicolous calcareous or basophilic grasslands of the *Alysso-Sedion albi*), 6210 (semi-natural dry grasslands and scrubland facies on calcareous substrates *(Festuco-Brometalia)*), 6230 (species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas in continental Europe)), 6240 (sub-Pannonic steppic grasslands), 6250 (Pannonic loess steppic grasslands) and 6260 (Pannonic sand steppes).

([57]) These are 7110 (active raised bogs), 7210 (calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*) and 7220 (petrifying springs with tufa formation (*Cratoneurion*)).

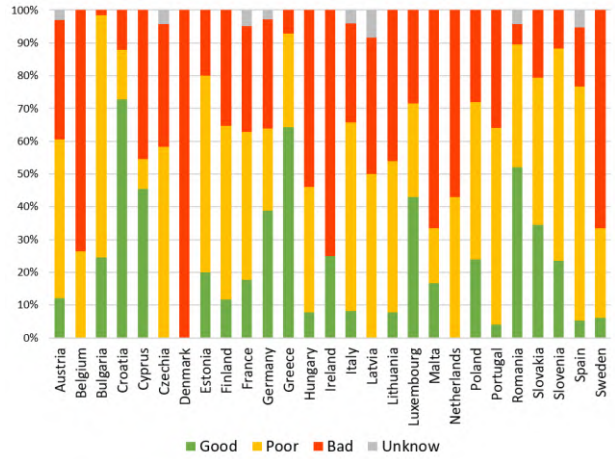
([58]) Proposal for a Regulation of the European Parliament and of the Council on a monitoring framework for resilient European forests, COM(2023)728, 22 November 2023, https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2023)728&lang=en

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

([60]) These are 91G0 (Pannonic woods with *Quercus petraea* and *Carpinus betulus*), 91H0 (Pannonian woods with *Quercus pubescens*), 91E0 (alluvial forests with *Alnus glutinosa* and

covered 22.7 % of the country ([61]) in 2020. The situation of forest habitats protected under the Habitats Directive is particularly worrying as more than half of the assessed forests have a bad status ([62]). Plantation forests with invasive alien species (IAS) continue to be an important threat to forest habitats and biodiversity, notably black locusts, which is proving difficult to eradicate. In 2022, Hungary also adopted a decree ([63]) establishing derogation rules for logging activities to address increased firewood needs. This decree raised some concerns regarding its potential impacts on protected forests conservation and the Commission is monitoring the situation.

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



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

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The EU Timber Regulation (EUTR) ([64]) prohibits the placing on the EU market of illegally harvested timber.

On 29 June 2023, the Regulation on Deforestation-free Products (EUDR) ([65]) entered into force ([66]). The regulation seeks to guarantee that products in the EU that are made using any of seven listed commodities have no links to deforestation. The EUDR repeals the EUTR.

2025 priority action

- Improve conservation status of forests by promoting sustainable forest managment and ensuring compliance with the Habitats Directive before granting/renewing permits for forest logging.

Prevention and management of invasive alien species

IAS are a major cause of biodiversity loss in the EU. Besides inflicting direct and indirect damage on nature and the economy, some IAS also carry and spread infectious diseases, posing a threat to humans and wildlife. Regulation (EU) No 1143/2014 (the IAS Regulation) aims to prevent, minimise and mitigate the adverse impacts of IAS on biodiversity. It focuses action on a list of IAS of EU concern (the 'Union list'), which is regularly updated ([67]).

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

The IAS Regulation ([68]) 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

Fraxinus excelsior (*Alno-Padion*, *Alnion incanae*, *Salicion albae*)), 91I0 (Euro-Siberian steppic woods with *Quercus* spp.) and 91N0 (Pannonic inland sand dune thicket (*Junipero-populetum albae*)).

([61]) EEA, forest information system for Europe, 'Countries – FISE country factsheets', forest information system for Europe website, https://forest.eea.europa.eu/countries. The land cover statistics show the percentage covered by forests compared with other land uses.

([62]) 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.

([63]) Government Decree No 287/2022 (VIII. 4.) on applying different rules to meet firewood needs during an emergency.

([64]) 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.

([65]) 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.

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

([67]) 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.

([68]) 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/eli/reg/2014/1143/oj/eng.

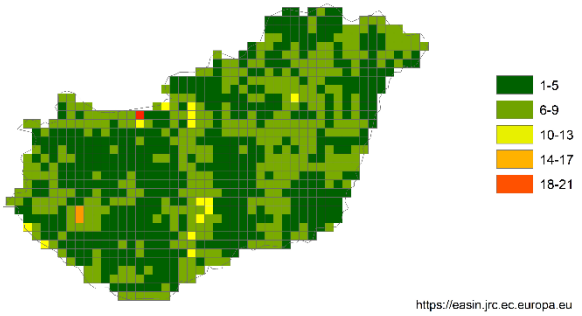
introduction of IAS, (ii) ensure early detection and rapid eradication of IAS and (iii) manage species that are already widespread on their territory.

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

Preventing the introduction and spread of IAS, and managing them, including through eradication and control, can result in a substantial cost saving. Studies estimate that the total cost of IAS in Europe (damages and management) amounted to EUR 116.61 billion between 1960 and 2020 ([69]). More recent studies have put this cost at USD 28 billion per year in the EU, increasing to USD 148.2 billion by 2040 ([70]), and at USD 423 billion annually at the global level ([71]).

The total number of IAS of Union concern in the country is 41. This includes 33 species recorded in the previous EIR (2021) and 8 additions. Of these additions, two were already on the Union concern list in 2021, and six were added later under Commission Implementing Regulation (EU) 2022/1203.

Figure 14: Number of IAS of EU concern, based on available georeferenced information for Hungary, 2024



In 2022, Hungary received priority actions to (i) step up implementation of the IAS Regulation and (ii) continue collecting data on IAS and improve the surveillance system. Hungary has fulfilled these priority actions.

Hungary has not yet ratified the International Convention for the Control and Management of Ships' Ballast Water and Sediments of 2004 (BWM Convention), which introduces global regulations to control the transfer of potentially invasive species.

2025 priority actions

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

Ecosystem assessment and accounting

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

Similarly, target 14 of the GBF ([72]) 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 ([73]).

The amended Regulation (EU) No 691/2011 on European environmental economic accounts ([74]) introduces new requirements for Member States to report on the condition of ecosystems including urban ecosystems, croplands, grasslands, forest and woodlands, coastal beaches, dunes and wetlands. Data reported by the Member States will feed into the second European ecosystem assessment, due in 2027, and can also be used to support policy decisions.

([69]) 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.

([70]) 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.

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

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

([73]) 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.

([74]) Proposal for a regulation of the European Parliament and of the Council amending Regulation (EU) No 691/2011 as regards introducing new environmental economic accounts modules,

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.

In 2025, Hungary plans to launch a project to develop the strategic foundations for planning green infrastructure based on ecosystem services, with the use of renewed datasets, based on the results of a previous project (in 2016–2022) financed by the cohesion policy. The project aims to assess and compare the status of ecosystems, examine changes, map ecosystem services and support green infrastructure planning.

In 2022, Hungary received the following priority actions.

- Continue supporting the mapping and assessment of ecosystems and their services, and ecosystem accounting development, through appropriate indicators for integrating ecosystem extent, condition and services (including some monetary values) into national accounts.
- 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.

Some progress has been made on the first priority action and Hungary should continue to take action to map and assess ecosystems. Regarding the second priority action, there is still no Hungarian business and biodiversity network member of the EU Business & Biodiversity Platform.

2025 priority action

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

COM(2022) 329 final of 11 July 2022, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2022:329:FIN.

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

3. Zero pollution

Clean air

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

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

The air quality in Hungary continues to give serious cause for concern in some parts of its territory. The latest available annual estimates (for 2022) by the EEA ([79]) for Hungary attribute:

- 8 600 deaths each year (or 90 000 years of life lost (YLL)) to fine particulate matter ($PM_{2.5}$) ([80]), placing it among the Member States with the most YLL (per 100 000 inhabitants) due to $PM_{2.5}$ exposure;
- 1 300 deaths each year (or 13 400 YLL) to nitrogen dioxide (NO_2) ([81]), placing it among the Member States with the most YLL (per 100 000 inhabitants) due to NO_2 exposure;
- 2000 deaths each year (or 21 400 YLL) to ozone ([82]), making Hungary the Member State with the second highest number of YLL (per 100 000 inhabitants) due to ozone exposure.

The emissions of several air pollutants have decreased significantly in Hungary since 2005, while GDP growth has continued (see Figure 15). According to the inventories submitted under Article 10(2) of the National Emission Reduction Commitments Directive (NECD) ([83]) in 2024, Hungary has met its emission reduction commitments for 2020–2029 for air pollutants nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOC) and sulphur dioxide (SO_2). However, Hungary has not met its commitments for ammonia (NH_3) or $PM_{2.5}$. According to the latest projections submitted under Article 10(2) of the NECD in 2023, Hungary is projected to meet its emission reduction commitments for 2030 onwards for SO_2, but not for NO_x, NMVOC, NH_3 and $PM_{2.5}$.

Hungary submitted its first national air pollution control programme (NAPCP) to the Commission on 18 May 2020. An update was due four years afterwards. Hungary needs to update its policies and measures to reduce air emissions.

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

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

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

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

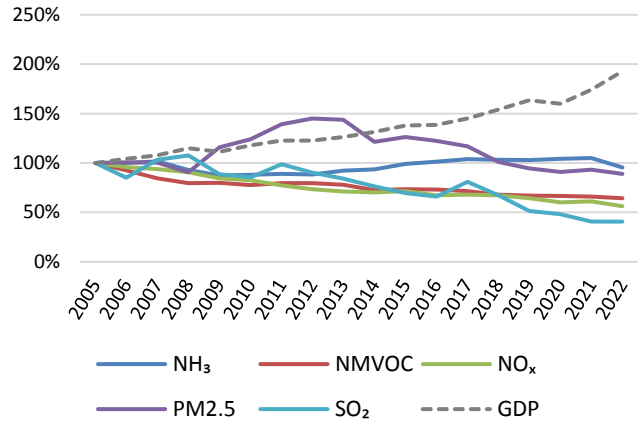
([80]) Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM_{10} refers to particles with a diameter of 10 µm or less. $PM_{2.5}$ refers to particles with a diameter of 2.5 µm or less. PM is emitted from many human sources,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

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

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

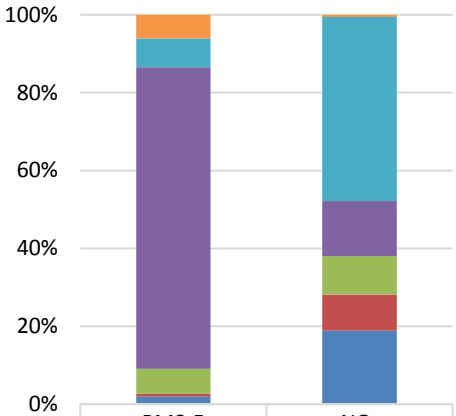
([83]) Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC (OJ L 344, 17.12.2016, p. 1), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.344.01.0001.01.ENG.

Figure 15: Emission trends of main pollutants / GDP in Hungary (%), 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.

Figure 16: $PM_{2.5}$ and NO_x emissions by sector in Hungary (%), 2022



	PM2.5	NO_x
Waste	6.05%	0.57%
Transport	7.39%	47.25%
Residential, commercial & institutional	77.50%	14.13%
Manufacturing and extractive industry	6.35%	9.86%
Energy supply	0.73%	9.35%
Agriculture	1.97%	18.84%

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

In 2023, no exceedances above the limit values set by the Ambient Air Quality Directive (AAQD) ([84]) were registered in Hungary. However, the target values for ozone concentrations have not been met in two air quality zones, as well as the target value for benzo(a)pyrene (BaP) concentration in two air quality zones ([85]).

Persistent breaches of air quality requirements have severe negative effects on health and the environment. Therefore, the European Commission opened an infringement procedure against Hungary for exceedances of PM_{10} limit values. The Court of Justice of the European Union delivered a judgment ([86]) in 2021 confirming the non-compliance with the AAQD in three geographic areas (Budapest, Sajó Valley and Pécs). As the air quality zone of the Sajó Valley has been far from respecting the limit values in recent years, a procedure ([87]) is still ongoing

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

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

([86]) Judgment of 3 February 2021, *Commission* v *Hungary (Valeurs limites – PM_{10})*, C-637/18, EU:C:2021:92.

([87]) A letter of formal notice was issued under Article 260 of the Treaty on the Functioning of the European Union; see European Commission, 'July infringement package: Key decisions', European Commission website, 25 July 2024, https://ec.europa.eu/commission/presscorner/detail/en/inf_24_3228.

against Hungary for failing to comply with the judgment. As Hungary reported compliance for the Sajó Valley after the judgment, the Commission is monitoring the change in air quality in the zones concerned.

Infringement procedures have also been opened for Member States not meeting the emission reduction commitments for 2020–2029, including procedures against Hungary ([88]) for NH_3 and $PM_{2.5}$.

Hungary has not yet ratified Annex VI to the International Convention for the Prevention of Pollution from Ships (Marpol).

In the 2022 EIR, Hungary received three priority actions. The first priority action was to further reduce emissions in the context of the NAPCP. Hungary has not made progress on this, as the latest reported data show continued non-compliance with the 2020–2029 emission reduction commitments for NH_3 and $PM_{2.5}$ and also project non-compliance with the emission reduction commitments for NO_x, NMVOC, NH_3 and $PM_{2.5}$ 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, Hungary has made some progress in this regard. Since 2019, downward emission trends have been reported for all main pollutants. However, exceedances above target values remain for ozone and BaP, requiring further action. The third priority action received by Hungary was to ratify the amended Gothenburg Protocol, the Protocol on Heavy Metals and the Persistent Organic Pollutants Protocol. These have been ratified. Hungary was also encouraged to ratify Annex VI to Marpol, which has not been achieved. Thus, substantial progress has been made, but Annex VI to Marpol remains to be ratified.

2025 priority actions

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

The cornerstone of the policy is the Industrial Emissions Directive (IED), which was revised in 2024 ([89]). 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 ([90]).

In Hungary, there were about 1 300 installations covered by the IED in 2022, almost half of them (49 %) being installations for the intensive rearing of poultry or pigs. The other main sectors the waste management sector (16 %) and the chemical and metals sectors (about 8 % each).

Figure 17 shows the damage to health and the environment due to the main industrial air pollutants. As this depends on, among other factors, the size of the industrial sector in each Member State, the figure also shows the ratio between the damage and the industrial activity (expressed in gross value added (GVA)), which gives an indication of the emissions 'intensity'. Hungary has the 14th highest damage value in the EU but comes 9th for emissions intensity, above the EU average of EUR 27.5/EUR 1 000 GVA. The main industrial contributors to emissions to air ([91]) are the energy sector and the mineral sector for NO_x emissions, the waste management sector for dust emissions, the energy sector for SO_2 emissions, and the energy and metals sectors for heavy metals.

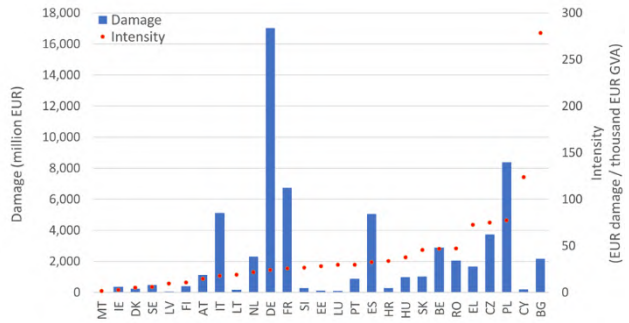
([88]) European Commission, 'November infringement package: Key decisions', European Commission website, 16 November 2023, https://ec.europa.eu/commission/presscorner/detail/en/inf_23_5380.

([89]) 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.

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

([91]) 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.

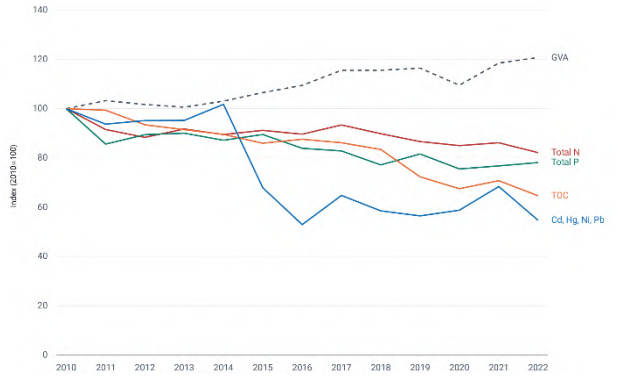
Figure 17: Industrial air pollution damage and intensity per Member State, 2021



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

Overall, the industrial emissions to water in the EU have decreased over time for all the main pollutants. On average in the EU, they appear to be decoupled from the industrial activity, which has increased over the same period (expressed in GVA), as shown in Figure 18.

Figure 18: Industrial releases of pollutants to water and industrial activity in the EU-27

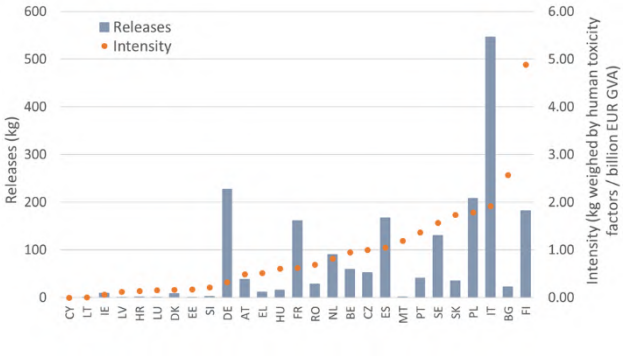


NB: Cd, cadmium; Hg, mercury; Ni, nickel; Pb, lead; TOC, total organic carbon; total N, total nitrogen; total P, total phosphorous.

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

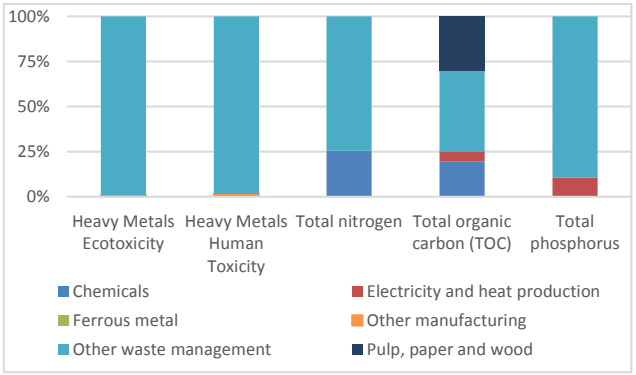
Concerning Hungary in particular, Figure 20 shows the industrial emissions of heavy metals to water, taking into account the human toxicity of each metal, as well as the emissions intensity, based on its ratio with industrial activity (expressed in GVA). Hungary has the 16th highest emissions of heavy metals to water and is in 15th position for emission intensity (below the EU average of 0.864 kg/EUR 1 billion GVA). As shown in Figure 20, the main industrial contributors to emissions to water in Hungary are the waste management sector for heavy metals, nitrogen, phosphorus and total organic carbon, and the pulp and paper sector for phosphorus.

Figure 19: Industrial releases and intensity of heavy metals to water per Member State, 2022



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

Figure 20: Relative releases to water from industry in Hungary (%), 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 compliance of these permits with EU legislation. The IED contains mandatory requirements on environmental inspections, requiring a site visit to take place at least every 1–3 years, using risk-based criteria. In addition, IED enforcement provisions require Member States to determine effective, proportionate, and dissuasive penalties applicable to infringements of IED-based national provisions. In the revised directive, the provisions set that worst infringements can be sanctioned by fines of at least 3% of the annual EU turnover of the legal person. The revised IED also introduces a right to compensation for people whose health has been harmed by such infringements.

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

Since the 2022 EIR, the Commission has adopted BAT conclusions on (i) ferrous metal processing, (ii) 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 2022, Hungary received priority actions to continue addressing pollution from large combustion plants. As mentioned above, the energy sector is still the main contributor for emissions to air of NO_x, SO_2 and heavy metals.

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 updates to permits following the publication of BAT conclusions.
- Ensure effective public participation and access to justice in relation to the IED.

Major industrial accidents prevention – Seveso

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

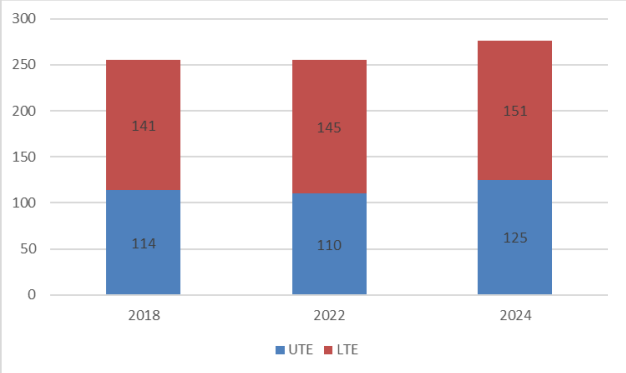
(i) control major-accident hazards involving dangerous substances, especially chemicals;
(ii) limit the consequences of such accidents for human health and the environment;
(iii) continuously improve the prevention of, preparedness for and response to major accidents.

The cornerstone of the policy is Directive 2012/18/EU (the Seveso III Directive) ([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 Hungary on the implementation of the Seveso III Directive for 2019–2022 ([94]).

In 2024, of the 276 Seveso establishments in Hungary, 151 were categorised as lower-tier establishments and 125 as upper-tier establishments (UTEs), based on the quantity of hazardous substances likely to be present. UTEs are subject to more stringent requirements. The change in the number of Seveso establishments is presented in Figure 21.

Figure 21: Number of Seveso establishments in Hungary, 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 EEPs are essential to allow proper preparation and effective implementation of the necessary actions to protect the environment and the population should a major industrial accident occur.

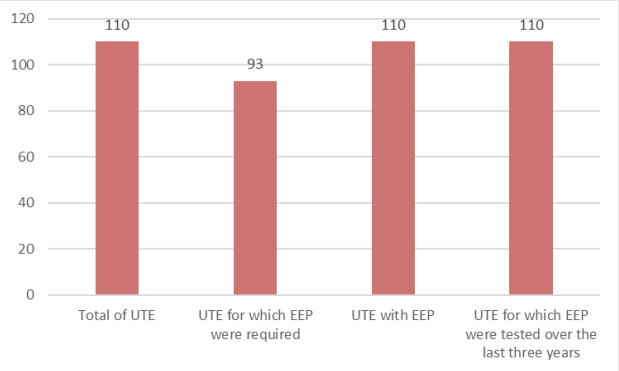
According to Hungary, in 2022, an EEP was required for 93 UTEs out of 110 in total. EEPs were drawn up and tested for all 110 UTEs. The summary is shown in Figure 22.

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

([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 22: Situation regarding EEPs in Hungary, 2022

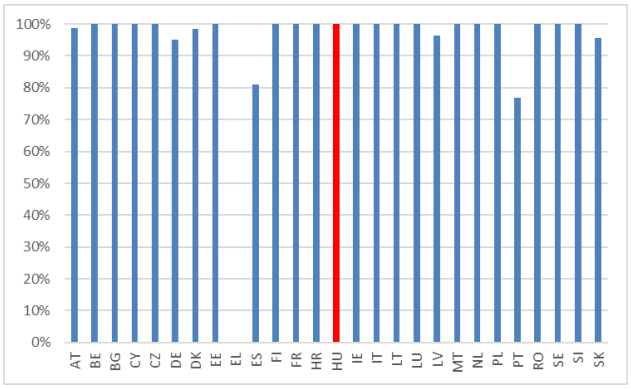


Sources: European Commission: Directorate-General for Environment, *Assessment and summary of Member States' implementation reports for Implementing Decision 2014/896/EU (implementing Directive 2012/18/EU on the control of major accident hazards involving dangerous substances)*, Publications Office of 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 following types of information are permanently available for all Seveso establishments in Hungary: (i) information for the public referred to in Annex V to the Seveso III Directive, especially about how the public concerned will be warned if there is a major accident; (ii) information about appropriate behaviour in the event of a major accident; and (iii) the date of the last site visit.

The shares of UTEs for which information on safety measures and requisite behaviours was actively made available to the public in 2022 in the EU-27 are presented in Figure 23. This provision on knowledge is an important provision of the Seveso III Directive, as awareness by the public of this information may ameliorate the consequences of a major industrial accident.

Figure 23: 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.

The infringement procedure launched by the Commission against Hungary in 2020 for failing to correctly transpose the Seveso III Directive into national law is still ongoing.

2025 priority action

- Ensure full and correct transposition of the Seveso III Directive.

Mercury Regulation

The Mercury Regulation ([95]) 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

([95]) Regulation (EU) 2024/1849 of the european parliament and of the council of 13 june 2024, amending regulation (EU) 2017/852 on mercury as regards dental amalgam and other mercury-added products subject to export, import and manufacturing restrictions, (OJ L, 2024/1849, 10.7.2024), https://eur-lex.europa.eu/eli/reg/2024/1849.

practitioner based on the specific medical needs of the patient, and prohibiting the manufacture and export of additional mercury-containing lamps from 1 January 2026 or 1 January 2027 (depending on the lamp category).

Measures should have been put in place in Hungary to ensure a socially and economically sound phase-out, including an adequate reimbursement of the alternatives to dental amalgam through the health insurance scheme and the training of dental practitioners. The Commission is monitoring whether the phase-out has taken place under the terms and conditions of the regulation. Hungary 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 ([96]) 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 ([97]).

In Hungary, environmental noise is estimated to cause at least 730 cases of ischaemic heart disease annually ([98]) and some 70 800 people to suffer from disturbed sleep ([99]).

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

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

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

2025 priority actions

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

Water quality and management

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

Water Framework Directive

The Water Framework Directive ([100]) is the cornerstone of EU water policy in the 21st century ([101]). The Water Framework Directive and other water-related directives ([102]) form the basis of sustainable and

([96]) 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.

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

([98]) 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.

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

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

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

([102]) 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

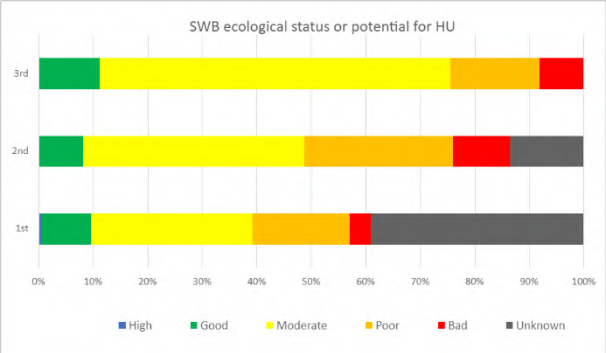
integrated water management in the EU. They aim to achieve a high level of protection of water resources, prevention of further deterioration and restoration to good status. These objectives are very important for the EU's competitiveness, strategic autonomy and security, yet have become even more challenging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

The Water Framework Directive establishes a procedural framework for reaching good surface water ecological and chemical status and good groundwater quantitative and chemical status. This implies monitoring and classification of all waterbodies, assessment of pressures and impacts and identification of the most cost-effective measures to achieve the objectives of the directive. The directive dates from 2000 and set an initial deadline of 2015 for achieving its objectives, with the option to extend the deadline to the end of 2027. Every six years, Member States must report their river basin management plans (RBMPs) to the Commission. They should cover river basin districts in their countries, some of which may be shared with other countries. The Commission has assessed the third cycle of RBMPs, which were to be submitted by March 2022, and will report its findings to the European Parliament and to the Council on 4th February 2025 ([103]).

Hungary has 1 072 surface waterbodies and 185 groundwater bodies, all within one river basin district: the Hungarian Danube River Basin District. Approximately 55 % of surface waters are designated as 'heavily modified' and about 16 % as 'artificial'. Heavily modified and artificial waterbodies must reach good ecological potential rather than good ecological status, which means that all measures must be taken to mitigate the adverse impact of the sustainable human development activities causing the waterbody to be heavily modified / artificial, whilst not significantly affecting these activities.

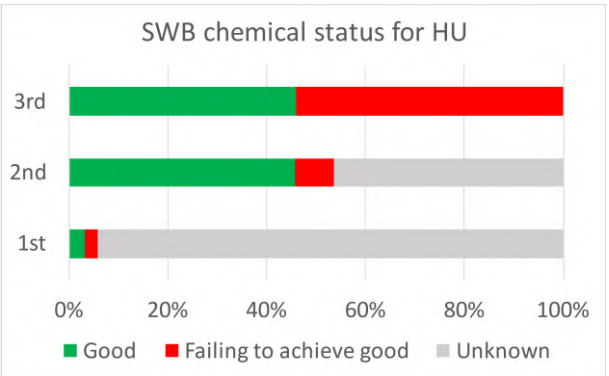
Figures 24–27 show the change in ecological status/potential and chemical status of surface waters, and the quantitative and chemical status of groundwater in 2010, 2015 and 2021. It follows from the assessment of the third RBMPs that there has been only a minor improvement in the ecological status/potential of surface waterbodies, and no improvement in their chemical status, since the second RBMPs (covering 2015–2021). There has been no improvement in the quantitative status of groundwater bodies, but a slight improvement in their chemical status.

Figure 24: Ecological status/potential of surface waterbodies in each RBMP cycle (%)



Only 11.3 % of waterbodies are of good ecological status/potential. This is a slight improvement from the second RBMPs; however, Hungary remains below the EU-27 average ([104]). Efforts to improve monitoring have been made, one result of which is that no surface waterbody is of unknown ecological status/potential. No data were provided for the expected status/potential of surface waterbodies by 2027.

Figure 25: Chemical status of surface waterbodies in each RBMP cycle (%)



The percentage of surface waterbodies with good chemical status has not improved since the second RBMPs, remaining at 46 %. Efforts to improve monitoring

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).

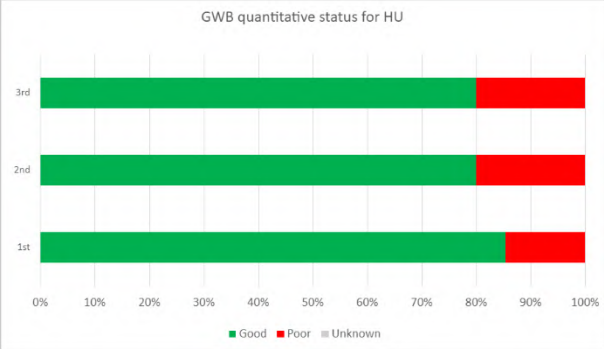
([103]) Commission Staff Working Document – EU overview, Third river basin management plans, second flood hazard and risk maps and second flood risk management plans, Member State: Hungary, accompanying the document report from the Commission to the Council and the European Parliament on the implementation of the water framework directive (2000/60/ec) and the floods directive (2007/60/ec), SWD(2025) 13 final of 4 February 2025, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD%3A2025%3A29%3AFIN&qid=1738746144581.

([104]) https://water.europa.eu/freshwater/europe-freshwater/water-framework-directive/ecological-status-of-surface-water/ecological-status-by-country.

have been made, one result of which is that no surface waterbody is of unknown chemical status. No data were provided for the expected status of surface waterbodies by 2027.

Failure to achieve good chemical status is mostly due to a small number of persistent, bioaccumulative and toxic substances (polybrominated diphenyl ethers, mercury, polyaromatic hydrocarbons, perfluorooctane sulfonate and its derivatives, heptachlor and heptachlor epoxide) and substances that are not persistent, bioaccumulative and toxic (arsenic, cadmium, lead, nickel and hydrocarbon fluoranthene).

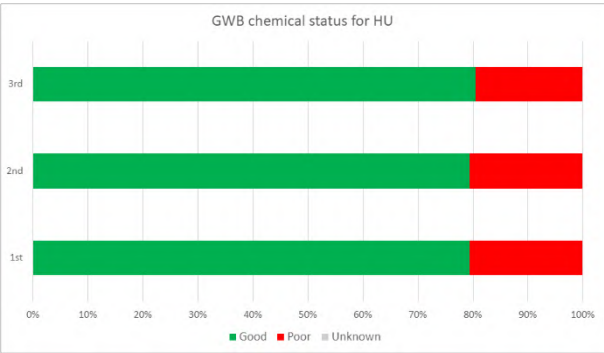
Figure 26: Quantitative status of groundwater bodies in each RBMP cycle (%)



The percentage of groundwater bodies with good quantitative status in Hungary has not improved since the second RBMPs, remaining at 80 %, below the EU average ([105]). No information was reported on the status expectations for 2027. However, 17.2 % of groundwater bodies with good quantitative status are identified as being at risk of deteriorating to poor status.

There are no reported causes for the failure to achieve good quantitative status.

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



There has been a slight increase in the percentage of groundwater bodies with good chemical status since the second RBMPs, with the value rising to 80.5 %. No information was reported on the status expectations for 2027. However, 10.8 % of groundwater bodies with good chemical status are identified as being at risk of deteriorating to poor status.

The main pollutants causing groundwater bodies to fail to achieve good chemical status are nitrates and sulphates. The main pollutants showing sustained upward trends in groundwater bodies are nitrates, ammonium and sulphates.

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

The 2022 EIR identified the following priority action: assess new physical modifications to waterbodies in line with Article 4(7) of the Water Framework Directive. These assessments were to consider alternative options and propose suitable mitigation measures. Some progress has been made with regard to this priority action, Hungary must continue its efforts to realise it.

A noteworthy point of good practice is that the reported significant pressures are well covered by the key types of operational measures. Hungary performed a prioritisation of the measures prior to their selection, favouring measures targeting the prevention of deterioration of status, based on their relevance and effectiveness. Regrettably, Hungary did not provide quantitative gap indicators of the expected gap in assessments of good status for 2027, although all pressures have been clearly linked to the measures. Hungary makes a considerable use of exemptions ([106]), thus it is important that it continues the efforts to transparently justify them and ensures that all measures necessary for achieving good status or potential by the end of 2027 are identified and initiated during this cycle to avoid unjustified exemptions under Article 4(4) and (5) of the WFD.

2025 priority actions

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

([105]) https://water.europa.eu/freshwater/europe-freshwater/water-framework-directive/groundwater-quantitative-status.

([106]) Commission Staff Working Document – EU overview, Third river basin management plans, second flood hazard and risk maps and second flood risk management plans, Member State: Hungary, accompanying the document report from the Commission to the Council and the European Parliament on the implementation of the water framework directive (2000/60/ec) and the floods directive (2007/60/ec), SWD(2025) 13 final of 4 February 2025, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD%3A2025%3A29%3AFIN&qid=1738746144581.

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

Floods Directive

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

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

Hungary's second FRMP sets out its main objective and identifies additional principles and objectives for flood risk management. Hungary proposed 49 new potential projects, providing information on their prioritisation, based on the cost–benefit analysis, the method used to select them and their costs. Estimates of the costs are provided for many but not all measures. The FRMP considers nature-based solutions but provides few details on nature conservation in its measures. Reference is made to climate change impacts and to adaptation. Hungary reported half of its measures as completed, a major increase between the first and second FRMPs.

2025 priority actions

- FRMPs should provide details on how the FHRMs were used in the choice of measures and how to consider pluvial flooding.
- Consider future climate scenarios in the FRMPs.
- Better explain the choice and implementation of flood prevention and protection measures (prioritisation, monitoring, costs of measures).
- Improve public consultation and stakeholder involvement.

Drinking Water Directive

The 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 ([107]), (ii) a methodology for measuring microplastics in drinking water ([108]) and (iii) an EU system for testing and approving materials that will be allowed to be in contact with drinking water ([109]). Member States will have to take these various Commission acts into account when implementing the recast directive.

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

In summary, the compliance for all parameter groups in Hungary was at least 97.77 % in 2017, 98.00 % in 2018, and 97.87 % in 2019. Despite this rate, the quality of drinking water (supplied by large water providers) remains a serious source of concern in specific areas of Hungary. In 2016, the Commission launched an infringement procedure against Hungary for failing to meet EU parametric values for arsenic, boron and fluoride in the drinking water of several municipalities. While the number of reported non-compliant zones has decreased, Hungary is still far from achieving compliance in the remaining settlements.

From January 2026, the European quality standards for per- and polyfluoroalkyl substances in drinking water will apply, ensuring harmonised Member States' reporting of per- and polyfluoroalkyl substance monitoring data in the future.

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

([108]) 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.

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

2025 priority action

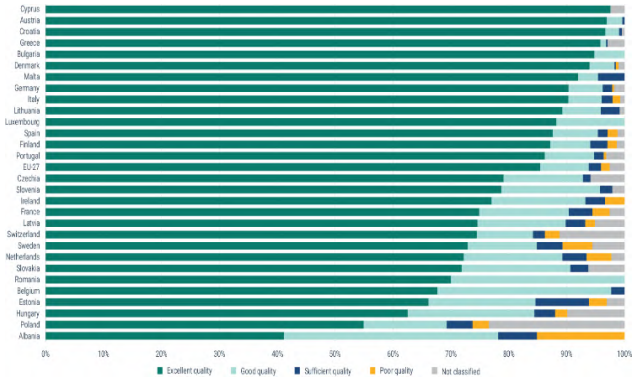
- Take action to ensure full compliance with the Drinking Water Directive.

Bathing Water Directive

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

Figure 28 shows that in 2023 Hungary was among the Member States with the lowest percentage of bathing waters of excellent quality: out of the 283 Hungarian bathing waters, only 177 (62.5 %) were of excellent quality, 62 (21.9 %) bathing waters were of good quality and 10 (3.5 %) bathing waters were of sufficient quality. At least 6 bathing waters (2.1 %) were found to be of poor quality and 28 bathing waters (9.9 %) were not classified.

Figure 28: 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 ([110]) 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 ([111]), 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 Hungary's RBMPs has identified nutrients from agriculture as an important pressure on groundwater / surface waters that is affecting these waters' good status and as one of the main factors in not meeting the WFD objectives.

In 2022, Hungary received a priority action on tackling nutrient pollution, especially nitrates from agriculture, through the implementation of the Nitrates Directive. Since the report on the implementation of the Nitrates Directive covering 2020–2023 will become available in 2025, the 2022 EIR priority action cannot be assessed and is repeated.

2025 priority action

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

Urban Wastewater Treatment Directive

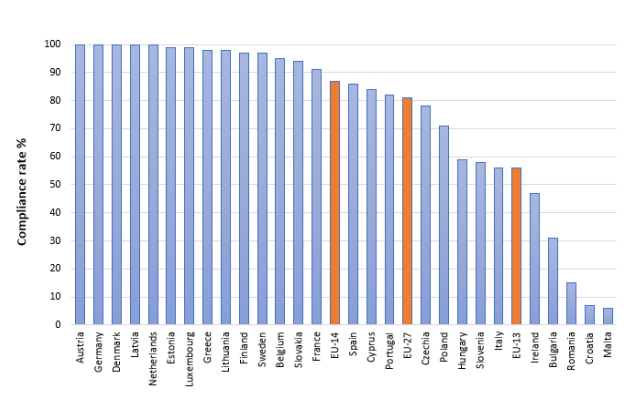
The Urban Wastewater Treatment Directive (UWWTD) aims to protect human health and the environment from the effects of untreated urban waste water. It therefore requires Member States to collect and treat (secondary or biological treatment) waste water in all urban areas of more than 2 000 people, and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

Overall, in Hungary, the compliance rate was 59 % in 2020. A total of 151 agglomerations, generating 5 164 127 population equivalent of urban waste water, did not comply with the requirements of the directive.

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

([111]) https://environment.ec.europa.eu/topics/water/nitrates_en.

Figure 29: Proportion of urban waste water that fully complies with the UWWTD (%), 2020



Source: European Commission, 12th technical assessment of UWWTD implementation - Publications Office of the EU, 2024 https://op.europa.eu/en/publication-detail/-/publication/4c97f846-44b2-11ef-865a-01aa75ed71a1/language-en.

The Commission decided to refer Hungary to the Court of Justice of the European Union in June 2021. On 7 December 2023, Hungary was condemned by the court ([112]) for failing to comply with the requirements of the UWWTD. It is essential that Hungary takes the necessary measures to comply with the UWWTD.

This is all the more important as the directive has been revised ([113]) in order to, among other things, strengthen existing treatment standards and establish an additional treatment of micropollutants in urban waste water. Other new requirements relate to moving towards the energy neutrality of the sector, establishing an EPR system to ensure sustainable financing of micropollutant treatment by the most polluting industries and ensuring access to sanitation, especially for vulnerable and marginalised groups. Hungary has until 31 July 2027 to transpose the new directive into its national legal system.

With regard to the implementation of the 2022 priority action related to the implementation of the UWWTD, there has been limited progress, so it is proposed again.

2025 priority action

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

Chemicals

The EU seeks to ensure that chemicals are produced and used in a way that minimises any significant adverse effects on human health and the environment. In October 2020, the Commission published its chemicals strategy for sustainability towards a toxic-free environment ([114]), 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 ([115]) 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 ([116]) on the implementation and enforcement of these

([112]) Judgment of 7 December 2023, *Commission* v *Hungary (Collecte des eaux urbaines résiduaires)*, C-587/22, EU:C:2023:963 (https://curia.europa.eu/juris/liste.jsf?num=C-587/22).

([113]) Directive (EU) 2024/3019 of the European Parliament and of the Council of 27 November 2024 concerning urban wastewater treatment (recast).

([114]) 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.

([115]) 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.

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

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

In August 2021, the Commission published a measurable assessment of the enforcement ([118]) 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 ([119]).

In 2023, new hazard classes were added to the CLP Regulation, and the revision of the regulation was tabled (published on 20 November 2024) ([120]). 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 ([121]). The Commission is working on the delegated acts to include these substances in Annex I to the Persistent Organic Pollutants Regulation by 2025 at the latest.

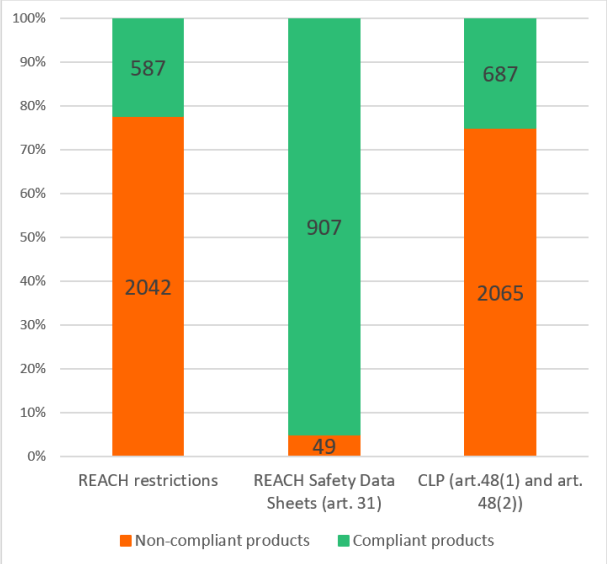
Hungary has devised and fully implemented enforcement strategies for both the REACH and CLP Regulation ([122]).

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

In 2022, 160 inspectors (for all chemicals-related regulations and other areas) were assigned to REACH and CLP Regulation enforcement in Hungary ([123]).

In 2020, Hungary participated in an EU coordinated enforcement project on products sold online, called the REACH-EN-FORCE (REF)-8 project ([124]). The report was adopted in November 2021, so it could not be taken into account in the previous EIR.

Figure 30: Compliance of imported products – results of the REF-8 project (%)



A risk approach was used for the targeting of control measures in order to maximise the chances of identifying non-compliances. Therefore, the non-compliance rates

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

([118]) 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/.

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

([120]) 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)

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

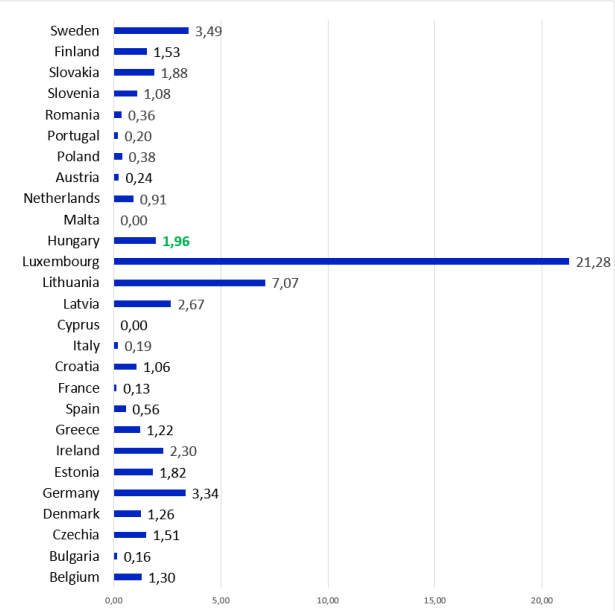
([122]) European Commission, *Technical assistance to review the existing Member States reporting questionnaire under Articles 117(1) of REACH and 46(2) of CLP – Final report*, Publications Office of the European Union, Luxembourg, 2020, p. 76, https://circabc.europa.eu/ui/group/8ee3c69a-bccb-4f22-89ca-277e35de7c63/library/a4abce8c-8425-455f-b7e6-0ead917bde6b/de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

([123]) European Commission, *Technical assistance to review the existing Member States reporting questionnaire under Articles 117(1) of REACH and 46(2) of CLP – Final report*, Publications Office of the European Union, Luxembourg, 2020, p. 74, https://circabc.europa.eu/ui/group/8ee3c69a-bccb-4f22-89ca-277e35de7c63/library/a4abce8c-8425-455f-b7e6-0ead917bde6b/details.

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

presented above cannot be considered the average non-compliance rates of products in the EU. However, the proportion of non-compliance cases found in the REF-8 project are of concern.

Figure 31: Number of REF-8 checks performed per 100 000 inhabitants (EU average = 1.24)



Hungary's participation in the REF-8 coordinated enforcement project was above the EU average. However, the EU average is rather low because of the lack of involvement of certain large Member States. In this project and others conducted with the help of the European Chemicals Agency in the past few years, online sales have been proved to correspond consistently to higher non-compliance rates in checks performed across the EU, in particular when related to imported products.

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 checks and checks of products sold online with regard to compliance with chemicals legislation.

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 % ([125]). 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.

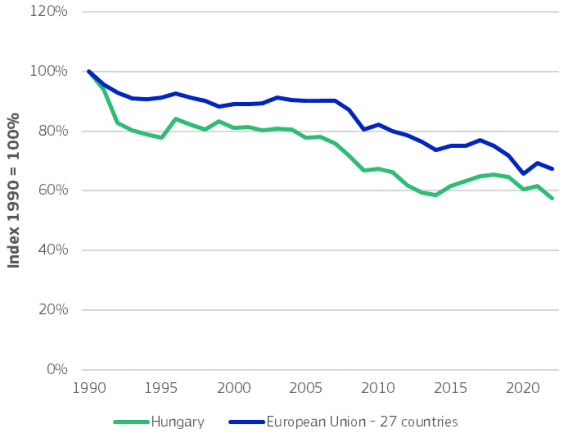
The 'Fit for 55' legislative package reflects the need to speed up the green transition. It includes: (i) strengthening and expanding the EU emissions trading system (ETS), with the creation of a new, second, ETS for transport and buildings together with a dedicated Social Climate Fund to help citizens during the transition; (ii) increasing targets under the Effort Sharing Regulation; and (iii) a revised Regulation for Land Use, Land Use Change and Forestry ([126]). 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) ([127]). Hungary submitted its final plan in October 2024 after the deadline set by the Regulation on the Governance of the Energy Union and Climate Action ([128]). The European Commission assessed the updated plan and the extent to which Hungary has followed the recommendations for the draft version. The findings from the assessment are:

- Emissions under the Effort Sharing Regulation will decrease by 25% in 2030 compared to 2005, which is above its target of 19%.
- Hungary is in line with its Land Use, Land-Used Change and Forestry (LULUCF) target.
- Hungary has a gap towards the target for the share of renewable energy.
- There are still gaps in energy efficiency targets that must be closed.

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

Figure 32: Total GHG emissions (excluding international aviation) (%), 1990–2022



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

([126]) 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.

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

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

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 t of CO_2 eq. (carbon dioxide equivalent)), in auctions or through trading allowances with others. The cap is reduced annually to ensure that overall emissions in the sectors covered decrease over time.

The emissions under the ETS decreased by 48% from 2005 to 2023.

In 2023, half of GHG emissions from Hungary's ETS installations came from power generation, a bit below the EU average, 57 %. Of the total emissions from all industry sectors, the chemical industry emitted almost one third, cement and lime production about 15 %, the metals industry 7 %, and other industries 48 %. Between 2019 and 2023, the power sector registered a higher emissions reduction (35 %) than the industry sectors (28 %). Between 2013 and 2023, GHG emissions declined by 45 % in power generation but only by 5 % in the industry sectors, driven by the metals industry. This resulted in a combined GHG reduction of 30 % in this period.

From 2027, a new emissions trading system, called ETS2, for buildings, road transport and additional sectors (mainly industry not covered by the current ETS) will become fully operational ([130]). 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. Hungary did not communicate full transposition into national law by this deadline. The Commission therefore opened an infringement procedure against Hungary on 25 July 2024, by sending a letter of formal notice for failing to fully transpose the provisions into national law.

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

The Commission also opened infringement procedures against Hungary on 25 January 2024, by sending a letter of formal notice for failing to fully transpose previous revisions of ETS Directive ([131]) into national law. Hungary 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) ([132]) covers GHG emissions from domestic transport (excluding CO_2 emissions from aviation), buildings, agriculture, small industry, and waste. Emissions from these sectors account for around 60 % of the EU's domestic emissions. The regulation sets the EU-wide target to reduce emissions from the effort sharing sectors by 40 % by 2030 compared to 2005 levels. This overall target for the EU translates to binding national emission reduction targets for each Member State. Hungary's target is – 18.7 %.

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 Hungary is on track to achieve its 2030 ESR target.

Projected emission reduction is 6.3 percentage points above the 2030 target.

The largest contributor is the domestic transport sector, which accounted for 34 % of all effort sharing emissions in 2022. The sector is a very high concern for Hungary because emissions have increased by 23 % since 2015. Hungary has still much to do to curb this rise. In 2022,

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

([130]) Directive (EU) 2023/959 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading system, OJ L 130, 16.5.2023, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2023.130.01.0134.01.ENG.

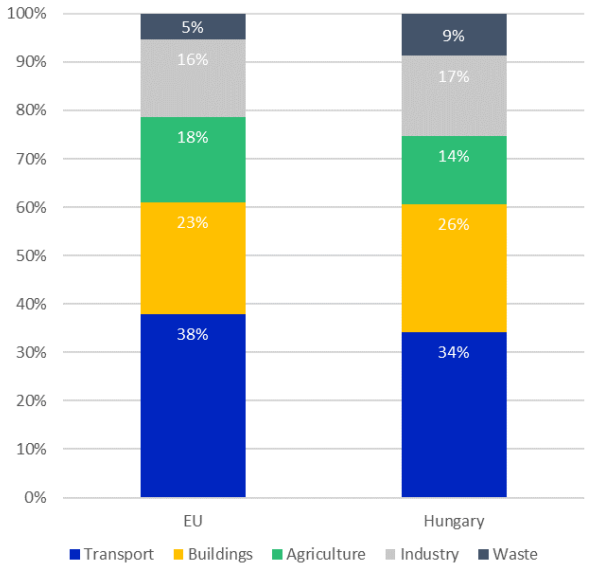
([131]) Directive (EU) 2023/959 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union and Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve for the Union greenhouse gas emission trading system, OJ L 130, 16.5.2023, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2023.130.01.0134.01.ENG; and Directive (EU) 2023/958 amending Directive 2003/87/EC as regards aviation's contribution to the Union's economy-wide emission reduction target and the appropriate implementation of a global market-based measure, OJ L 130, 16.5.2023, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32023L0958.

([132]) Regulation (EU) 2018/842 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013, OJ L 156, 19.6.2018, https://eur-lex.europa.eu/eli/reg/2018/842.

electric vehicles represented only 0.8 % of its passenger car fleet (EU average is 1.2 %). In 2023, Hungary's 3 250 publicly accessible charging points provided one charging point for every nine e-vehicles, compared to the EU average of 1:10. Buses and coaches and rail accounted for 20 % of passenger transport, with passenger cars accounting for only 78 % (EU average: 85 %). Rail accounts for a significant 25 % of freight transport, while 66 % of freight is transported by road (EU average: 75 %). However, only 41 % of Hungary's rail network is electrified (EU average: 56 %).

Buildings accounted for 26 % of all effort sharing emissions in 2022. Emissions of the sector are stagnating with no significant development since 2015. The energy performance of buildings is very low and regulated residential energy prices provide little incentive for renovations. Final energy consumption in residential did not decrease between 2018 and 2022, while the national long-term renovation strategy plans a reduction in building energy consumption by 20 % during the same period.

Figure 33: 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.

Hungary has seen modest improvements in its LULUCF sector carbon removals since 2018.

Hungary's target in 2030 is to enhance carbon removals by additional –0.9 Mt (million metric tonnes) of CO_2 equivalent compared to the yearly average of the period 2016–2018. The latest available projections show a gap to target of 0.1 Mt of CO_2 equivalent in 2030. Therefore, Hungary needs to apply additional measures to reach its 2030 target.

Adaptation to climate change

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

Hungary has no regions identified as a hotspots of climate risks most affected by climate change ([133]).

Climate change poses challenges to Hungary's forests, soils, water-related activities (due to both droughts and floods), and other areas. Threats include the impairment of forests' carbon removal capacity and declining agricultural productivity. Water management in changing climatic conditions requires particular attention due to risks of electricity disruption as floods, heat and drought impact the energy production.

Hungary adopted its national climate law in 2020. National adaptation strategy was adopted in 2007 and updated in 2018. In 2020, regional adaptation plans were adopted. Nevertheless, Hungary faces shortcomings in its governance and coordination structures that hamper effective planning, climate adaptation solutions and investment, the monitoring, evaluation and review of policies, coordination between different sectors of government, and the preparation and updating of sub-national policies.

The European Commission identified four priority actions regarding climate action in the 2022 edition of the review. Hungary has not progressed in improving energy efficiency and improving sustainable transport. The progress in deployment of renewables is limited. Overall share of renewables remains way below the EU average and below the share in 2012 and 2013. There is a hostile regulatory environment for wind energy. Since 2021 under the Green District Heating Programme, biomass production is promoted for heating and cooling purposes. According to the measure, this biomass must meet the sustainability criteria.

2025 priority action

- Implementing all polices and measures that are needed to achieve targets laid down in the Effort

([133]) European Climate Risk Assessment (EUCRA). 2024. Available at https://climate-adapt.eea.europa.eu/en/eu-adaptation-policy/key-eu-actions/european-climate-risk-assessment.

Sharing Regulation (ESR) and the Land Use and Land-Use Change and Forestry (LULUCF) Regulation. More detailed priority actions are set out in the assessment of the final National Energy and Climate Plan (NECP) ([134]).

([134]) European Commission, National energy and climate plans.

Part II: Enabling framework – implementation tools

5. Financing

The EU budget supports climate investment in Hungary with significant amounts in 2021–2027, with revenues from the ETS also feeding into the national budget. During 2020–2022, Hungary's revenues from auctioning reached EUR 979 million in total, with 60 % of it spent on climate and energy, corresponding to EUR 538 million.

In addition, the annual investment needed to meet its environmental objectives in the areas of pollution prevention and control, the circular economy and waste, water protection and management, and biodiversity and ecosystems is estimated to be EUR 5.8 billion per year in Hungary.

These four environmental areas currently receive total funding of around EUR 3.4 billion per year; thus, there is a gap of EUR 2.4 billion per year.

Of the environmental investment gap, EUR 1 billion concerns biodiversity and ecosystems, EUR 0.6 billion the water objective, EUR 0.5 billion pollution prevention and control and EUR 0.3 billion circular economy.

Climate finance landmarks

EU funding for climate action

The EU budget supports climate action in the EU-27 with EUR 657.8 billion in the 2021–2027 budgetary period across the various programmes and funds, representing an overall 34.3 % contribution level. Of this, cohesion policy provides EUR 120 billion (over half of it through the European Regional Development Fund (ERDF)), the recovery and resilience facility (RRF) EUR 275.7 billion, and CAP EUR 145.9 billion ([135]).

In Hungary, the EU cohesion policy (considering EU contribution amounts) provides EUR 7.2 billion for climate action in 2021–2027 (with around two thirds of this via the ERDF), with a further EUR 22 million from the European Maritime, Fisheries and Aquaculture Fund ([136]).

The RFF contributes to climate finance in Hungary with EUR 7 billion up to 2026, representing 66.9 % of the recovery and resilience plan (RRP) ([137]).

The European Investment Bank (EIB) provided EUR 109.9 billion financing across the EU-27 between 2021 and mid 2024 to support energy, transport and industry projects that are aligned with the EU's climate objectives. Of this amount, EUR 1.5 billion was assigned to Hungary in the reference period ([138]).

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 226 million in 2020, EUR 288 million in 2021 and EUR 465 million in 2022 in Hungary, totalling EUR 979 million in the three-year period. In Hungary, 50 % of the revenues are spent on climate and energy (any revenues not spent are carried over to future years) and the remainder goes to the national general budget. Amounts included in the latter can be spent on climate change and energy but are not covered here.

From the remaining part of the EU ETS revenues that feed into the Innovation Fund and the Modernisation Fund, further support is available to climate action at the EU level ([139]).

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 ([140]).

([135]) 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.

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

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

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

([139]) 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.

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

Environmental financing and investments

This section describes Hungary's investment needs, current financing and gaps as they relate to the four environmental objectives beyond climate objectives, namely tackling pollution, the circular economy and waste, water protection and management, and biodiversity and ecosystems ([141]).

The environment overall

Investment needs

The overall environmental investment needs to be sufficient to enable Hungary 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 almost EUR 5.8 billion per year (in 2022 prices).

The estimated requirement is balanced across the four environmental objectives, reaching EUR 1.6 billion per year for circular economy, EUR 1.5 billion per year for both biodiversity and ecosystems and pollution prevention and control, and EUR 1.3 billion per year for the water objective (in 2022 prices).

Current investments

To implement the environmental investments needed, the available financing is estimated to currently reach an annual EUR 3.4 billion in Hungary from EU and national sources combined (in 2022 prices).

Total environmental funding from the multiannual financial framework (MFF) is estimated to reach around EUR 7.3 billion for Hungary in total, during 2021–2027 (or around EUR 1 billion per year).

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

Instrument	Allocations
Cohesion policy	**4 940.8** ([a])
ERDF	3 758.2
Cohesion Fund	1 095.7
Just Transition Fund	86.9
CAP	**2 046.8** ([b])
European Agricultural Guarantee Fund	987.1
European Agricultural Fund for Rural Development	1 059.7
European Maritime, Fisheries and Aquaculture Fund	**22.0**
Other MFF sources	258.3 ([c])
RRF ([d]) (2021–2026)	**3 193.9**

NB: The table and figures of this report reflect the original EU Budget of EUR 21.7 billion, as adopted in December 2022. However, an amount of EUR 1.04 billion was lost to Hungary by the end of 2024, as a result of Article 2(1) of Council Implementing Decision (EU) 2022/2506 of 15 December 2022 ([142]) and pursuant to Article 7(3) of Regulation (EU, Euratom) 2020/2092 on a general regime of conditionality for the protection of the Union budget ([143]), in the absence of remedies taken by Hungary. As of 1 January 2025, the total EU budget effectively allocated is EUR 20.7 billion.

Sources:

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

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

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

([c]) Space Fund, Horizon Europe, financial instrument for the environment and the Connecting Europe Facility.

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

Hungary, 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 financial instrument for the environment (LIFE) programme (EUR 5.4 billion) ([144]), Horizon Europe (EUR

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

([142]) https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32022D2506

([143]) https://eur-lex.europa.eu/eli/reg/2020/2092/oj

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

95.5 billion) ([145]), the Connecting Europe Facility (EUR 33.7 billion) ([146]) and funds that can be mobilised through the InvestEU programme ([147]).

Hungary's RRP supports climate objectives through funding of EUR 6.98 billion (66.9 % of total), with an additional EUR 0.04 billion (0.4 % of total) for the environment.

The EIB provided around EUR 627.8 million in environment-related financial contributions to Hungary from 2021 to mid 2024, most of which, EUR 560 million (89 %), was in the area of sustainable energy, transport and industrial projects, which provides significant co-benefits to reducing air pollution, environmental noise and other pollution.

The EU's total national expenditure on environmental protection (operating plus capital expenditure) was EUR 298 billion in 2020 and EUR 321 billion in 2021, representing around 2.2 % of EU-27 GDP. In Hungary, the total national environmental protection expenditure was EUR 2.1 billion both in 2020 and in 2021, representing around 1.4–1.5 % of the GDP.

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 Hungary, the national environmental protection investment reached EUR 884 million in 2020, rising to EUR 818 million in 2021, representing around 0.5–0.6 % of GDP.

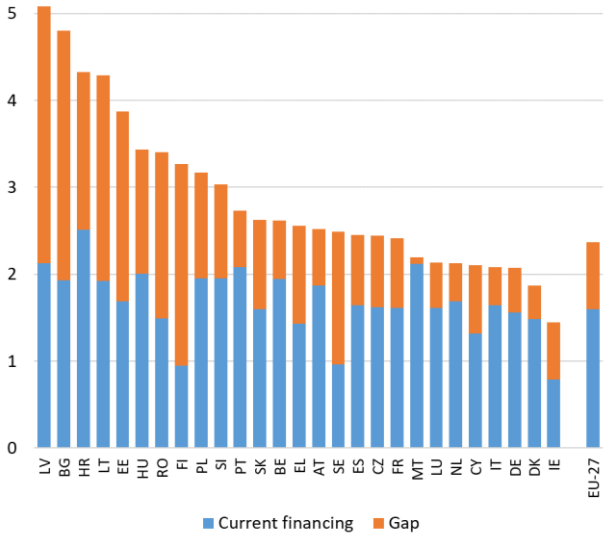
Splitting by institutional sector, 46 % of Hungary's national environmental protection investment (capital expenditure) comes from the general government budget, with 34 % coming from specialist private-sector producers (of environmental protection services, such as waste and water companies) and 20 % from the general business sector, whose environmental activities are usually ancillary to its main activities. At the EU level, 38 % of environmental protection investment comes from governments, 40 % from specialist private-sector producers and 22 % from the general business sector ([148]).

Hungary's total financing for environmental investment reaches an estimated EUR 3.4 billion per year (in 2022 prices), including EU funding and national public and national private expenditure. Of the total, the share of EU funds (including EIB funds) reaches 44 %, with around 56 % national financing. The total public financing (EU plus national public) represents 70 % 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 2.4 billion per year in Hungary, representing around 1.43 % of the national GDP, being significantly higher than the EU average (0.77 %).

Figure 34: Environmental financing, needs and gaps per Member State (% of GDP)



Source: Analysis of Directorate-General for Environment.

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

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

Environmental objective	Investment gap per year		
	Million EUR (2022 prices)	% of total	% of GDP
Pollution prevention and control	512	21.0	0.30
Circular economy and waste	316	13.0	0.19

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

([146]) 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.

([147]) 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.

([148]) Eurostat, 'Environmental protection expenditure accounts', env_ac_epea, https://ec.europa.eu/eurostat/cache/metadata/en/env_ac_epea_esms.htm.

Water management and water industries	610	25.0	0.36
Biodiversity and ecosystems	1 000	41.0	0.59
Total	**2 438**	**100.0**	**1.44**

Source: Directorate-General for Environment analysis.

Pollution prevention and control

Investment needs

In pollution prevention and control, Hungary's investment needs are estimated to reach EUR 1.5 billion per year (including baseline investments) in 2021–2027. Most of this, EUR 1.2 billion, relates to air pollution control, to comply with the clean air requirements for the five main air pollutants under the NECD by 2030. The estimated needs to reduce environmental noise reach EUR 260 million per year, most of which is delivered by the (same) sustainable energy and transport investments that also benefit clean air ([149]). Industrial site remediation requires an estimated EUR 31 million per year. Microplastics pollution and the chemicals strategy require around EUR 20 million per year (each) ([150]).

Current investments

The current investment levels supporting pollution prevention and control reach an estimated EUR 946 million per year in Hungary in 2021–2027. Most of the financing concerns clean air (EUR 818 million per year). Protection from environmental noise receives around EUR 352 million per year, with a further EUR 19 million for site remediation.

In Hungary, the EU MFF provides an estimated 38.7 % of the clean air financing (mostly via cohesion policy), with a further 41.4 % from the RRF, adding up to around 80 % of the total. EIB financing contributes 7.9 % and national sources reach 11.9 % ([151]).

The gap

To meet its environmental objectives concerning pollution prevention and control (towards zero pollution), Hungary needs to provide an additional EUR 512 million per year (0.30 % of GDP), mostly related to clean air and noise. The adequate implementation of the NECP with the investments included for sustainable energy and transport would largely deliver this, while in many Member States additional measures and investments may be required to comply with the ammonia reduction requirements.

According to the latest (2023) NAPCP review report ([152]), Hungary did not comply with ammonia reduction requirements in 2020 and 2021 (or with those for $PM_{2.5}$), while it is not at risk of non-compliance with ammonia concerning the NECD's 2030 emission reduction commitments, based on the policies and measures in its NAPCP that take into account climate, energy and CAP plans and financing baselines.

Circular economy and waste

Investment needs

Hungary's investment needs in circular economy and waste reach EUR 1.6 billion per year (including baseline investments). Most of this, around EUR 1.3 billion per year, relates to circular economy measures in the mobility, food and built environment systems, with a further EUR 0.3 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 ([153]).

Current investments

Circular economy investments across the economy reach around EUR 1.1 billion per year in Hungary in 2021-2027,

([149]) 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.

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

([151]) 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

([152]) 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.

([153]) 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.

with a further EUR 256 million provided for waste management that does not constitute circular economy.

Around 2.7 % of this combined financing for circularity and waste comes from the EU MFF, with a further 2.7 % from the RRF, adding up to 5.4 % of the total. EIB loans identified in support of circularity and waste represent 0.6 % of the total. The share of national sources is absolutely overwhelming, reaching 94 % of the total financing ([154]).

The gap

To meet its environmental objectives concerning the circular economy and waste, Hungary needs to increase circular economy investments by an estimated EUR 254 million per year, with an additional EUR 62 million concerning waste management action, not belonging to circular economy. Combined, this amounts to EUR 316 million per year, representing 0.19 % of Hungary's GDP.

Of the circular economy gap, EUR 66 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 187 million constitutes further investment need to unlock Hungary's circular economy potential.

Water protection and management

Investment needs

The annual water investment needs reach an estimated EUR 1.3 billion (in 2022 prices) in Hungary. This comprises investment needs both for the water industry and for the protection and the management of water. The largest part of the total annual need, EUR 680 million, relates to the management of waste water (also including additional costs associated with the revised UWWTD). A further EUR 202 million is necessary for drinking-water-related investments and around EUR 384 million for the protection and management of water ([155]).

Current investments

Water investments in Hungary are estimated to be around EUR 659 million per year (in 2022 prices) in 2021–2027 ([156]). Of this, EUR 367 million supports wastewater management, EUR 162 million drinking water and around EUR 129 million the other aspects of the Water Framework Directive (water management and protection).

Of the total financing, 22.9 % is provided by the EU MFF (mostly through cohesion policy), with a further 0.2 % from the RRF, reaching 23.1 % combined. EIB financing is around 0.1 % of the total, while the bulk of financing comes from national sources (77 %) ([157]).

The gap

To meet the various environmental targets under the Water Framework Directive and the Floods Directive, Hungary's water investment gap reaches EUR 610 million per year (0.36 % of GDP), with over half related to waste water (313 million per year). Drinking water measures require an additional EUR 40 million per year and the other aspects of the Water Framework Directive around EUR 255 million per year over the existing levels of financing.

Biodiversity and ecosystems

Investment needs

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

- Hungary's PAF ([158]) concerning the Natura 2000 areas: EUR 362 million per year, mostly running costs;
- additional BDS costs ([159]): EUR 737 million per year on top of the PAF;
- sustainable soil management costs ([160]): EUR 383 million per year.

([154]) 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).

([155]) 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.

([156]) This may decrease in reality (due to a loss of EUR 1 billion of EU funding by Hungary by the end of 2024) by around EUR 40 million per year, as the average share of environmental investment within the amounts from ERDF, CF and JTF to Hungary is around 30%.

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

([158]) 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.

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

([160]) See Proposal for a directive of the European Parliament and of the Council on soil monitoring and resilience (Soil Monitoring Law) COM(2023) 416 final of 5 July 2023,

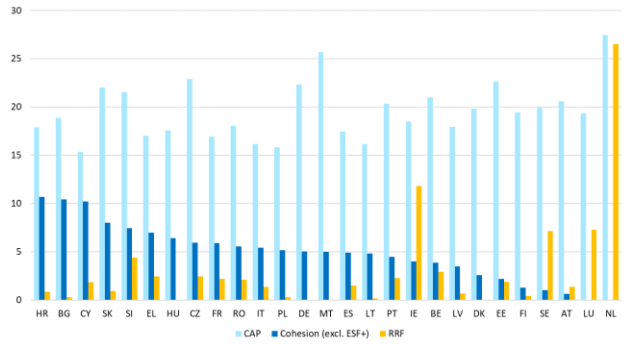
Current investments

The current level of biodiversity financing is estimated to be EUR 482 million per year (in 2022 prices) in 2021–2027. 75.2 % of this is considered direct financing to biodiversity and ecosystems, with a 100 % coefficient in the tracking schemes.

25.2 % of the total financing is estimated to come from EU cohesion policy, 57 % from CAP, 3.1 % from Horizon Europe and around 1.2 % from LIFE. The EU MFF altogether accounts for 87 % of the financing. The rest, 13 %, comes from national sources ([161]).

Hungary does not dedicate a share of RRF funding to supporting measures for biodiversity directly. Hungary has, however, programmed 17.6 % of its CAP budget for 2021–2027 measures dedicated to support biodiversity, which is slightly under the EU average (18.6 %). Lastly, 6.4 % of Hungary's cohesion policy EU contribution amount (disregarding ESF+) is estimated to contribute to biodiversity, above the EU average (5.9 %).

Figure 35: 2021–2027 contributions to biodiversity from the main EU instruments per Member State (% of policy total)



NB: ESF+, European Social Fund Plus.

The gap

To meet the environmental objectives concerning the protection and restoration of biodiversity and ecosystems and other relevant cross-cutting measures, Hungary's investment gap is estimated to be around EUR 1 billion per year, corresponding to 0.59 % of its GDP.

Public financial management

Green budgeting practices

Green budgeting refers to the use of budgetary tools to achieve climate and environmental goals. Some Member States already use green budgeting tools for identifying and tracking green expenditures and/or revenues ([162]). Green budgeting practices provide increased transparency on the environmental implications of budgetary policies.

The Commission has developed a non-mandatory green budgeting reference framework that brings together methodologies for assessing the impacts of budgets on climate and environmental goals ([163]).

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 ([164]), in which Hungary participated.

Beyond green budgeting, to improve policy outcomes, the Commission has also drawn up climate-proofing and sustainability-proofing guidance ([165]) as tools to assess project eligibility and compliance with environmental legislation and criteria.

Green taxation and tax reform

Total environmental taxes amounted to EUR 4.25 billion in Hungary in 2023, representing 2.16 % of its GDP (EU average: 2.0 %). Energy taxes formed the largest component of environmental taxes, accounting for 1.75 % of GDP, which is above the EU average of 1.6 %. Transport taxes, at 0.3 % of GDP, were slightly under the EU average (0.4 %), while taxes on pollution and resources, at 0.11 %, were above the EU average (0.08 %). In 2022, environmental taxes in Hungary accounted for 5.4 % of total revenues from taxes and social security contributions (around the EU average of 5.0 %) ([166]).

https://environment.ec.europa.eu/publications/proposal-directive-soil-monitoring-and-resilience_en.

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

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

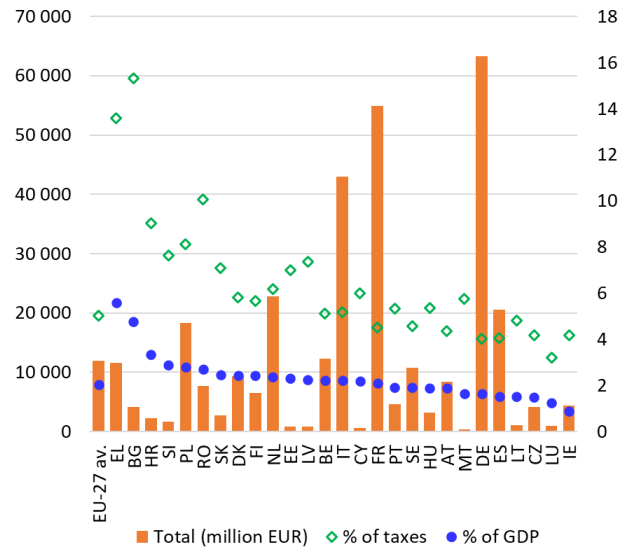
([163]) European Commission, 'European Union green budgeting reference framework', 2022, https://economy-finance.ec.europa.eu/economic-and-fiscal-governance/green-budgeting-eu_en.

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

([165]) 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.

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

Figure 36: 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 ([167]), Hungary applies economic instruments such as emission charges (related to air and water quality, noise and landfilling), product charges (for batteries, plastic, aluminium or tyres) and user charges (for visits to national parks, or water abstraction and disposal). It has missed opportunities to apply emission charges to specific pollutants, such as NO_x or manure. Such measures could significantly help Hungary to meets its commitments to reduce emissions, notably for NO_2 and NH_3. Hungary would also benefit from applying product charges for specific goods, such as vehicles, oil, pesticides, fertilisers, or electric and electronic products; dedicated user charges, such as road pricing; or charges on activities such as hunting and fishing, waste disposal, mineral extraction or logging. Such measures would help Hungary to meet waste management and circular economy targets, reduce pollution and increase nature protection.

Green bonds and sustainable bonds

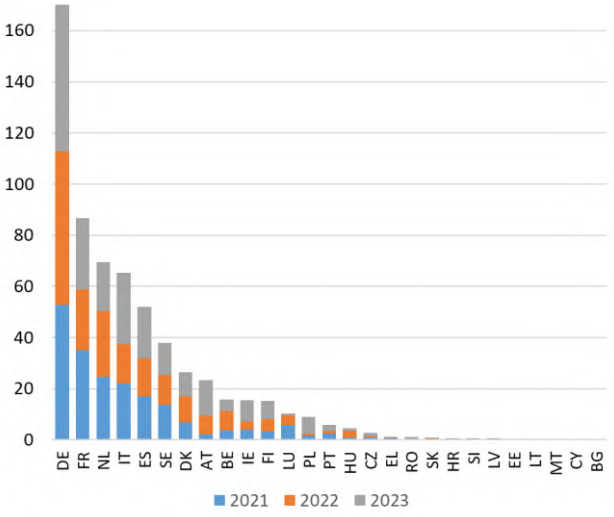
In 2023, the total value of green bonds issued by Member States was USD 245 billion (EUR 227 billion), up from USD 234 billion (EUR 198 billion) in 2021 ([168]).

During 2021–2023 combined, Hungary issued green bonds worth USD 4.8 billion (EUR 4.1 billion). Of this, the issuance in 2023 amounted to USD 1.1 billion (EUR 1 billion).

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 applied to waste management. By 2023, the combined share of energy, buildings and transport had decreased to 73 %, the shares of waste management and land use had increased (to 5.9 % and 8.4 %, respectively) and the share of water had remained around 5 %.

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

Figure 37: Value of green bonds issued per Member State (billion EUR), 2021, 2022, and 2023



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

([167]) 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.

([168]) 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.

Environmentally harmful subsidies

Addressing and phasing out environmentally harmful subsidies, in particular fossil fuel subsidies (FFS), is a further step towards achieving the eighth environment action programme objectives and the enabling conditions ([169]). FFS are costly for public budgets and make it difficult to achieve European Green Deal objectives.

The overall downward trend of FFS mentioned in past EIRs was disrupted from 2022 due to the European response to the 2021 energy crisis and subsequent increase in energy prices.

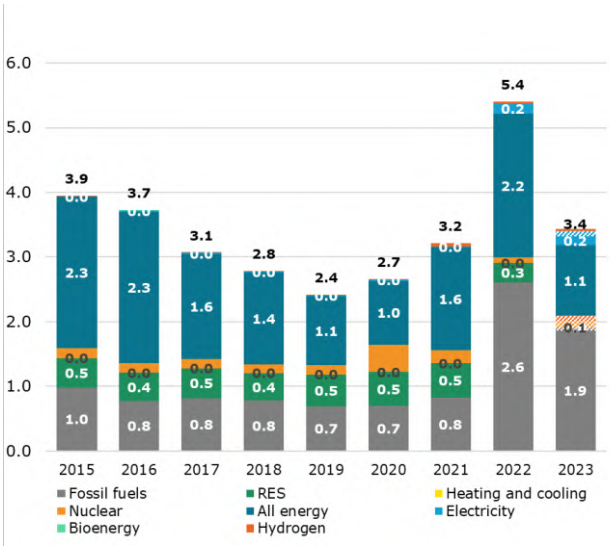
As a direct consequence, annual FFS in the EU have increased to EUR 109 billion in 2023 from EUR 57 billion in 2020. From 2021 to 2023, there was a marked increase in annual FFS of 72 % in the EU ([170]).

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 ([171]). 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 Hungary, the energy subsidies showed a marked decrease between 2015 and 2019, and then rose, with an unusual spike in 2022. FFS ranged from EUR 0.7 billion to EUR 1.0 billion between 2015 and 2021, jumped to EUR 2.6 billion in 2022 and started to decrease again in 2023 (reaching EUR 1.9 billion).

As a share of GDP, FFS in 2022 ranged from 1.8 % in Croatia to less than 0.1 % in Denmark and Sweden. Hungary's value reached 1.5 %, above the EU average (0.8 %) ([172]).

Figure 38: Energy subsidies by energy carrier (billion EUR), 2015–2023



NB: RES, renewable energy source.

Source: analysis of Directorate-General Energy

The 2022 priority actions for Hungary included the following.

- Prepare an environmental financing strategy to maximise opportunities to close environmental implementation gaps, including by increasing environmental taxation.
- Tackle the main environmental challenges affecting the country through adequate funding, including through the mobilisation of private investments and the use of EU funds.

Hungary has similar levels (1.4 % of GDP) of overall environmental investment gap as in 2022, which requires further action. Therefore, the priority actions are repeated (but combined) for Hungary.

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.

([169]) Article 3(h) and 3(v) of the eighth environment action programme.
([170]) 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.
([171]) 16 Member States: BE, EE, IE, EL, ES, FR, HR, IT, CY, LT, HU, NL, AT, PT, RO and SE.
([172]) European Commission, 2024 Report on Energy Subsidies in the European Union, COM(2025). https://ec.europa.eu/transparency/documents-register/detail?ref=COM(2025)17&lang=en.

6. Environmental governance

Information, public participation and access to justice

Citizens can more effectively protect the environment if they rely on the three 'pillars' of the Aarhus Convention: (i) access to information, (ii) public participation in decision-making and (iii) access to justice in environmental matters. It is of crucial importance to public authorities, the public and businesses that environmental information is shared efficiently and effectively ([173]). 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 ([174]). It includes the right to bring legal challenges ('legal standing') ([175]).

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.

Hungary's performance in implementing the Inspire Directive has been reviewed based on its 2023 country fiche ([176]) (see Table 3) and shows some progress.

More efforts are needed on implementation of the Inspire Directive to (i) make spatial data more widely accessible, (ii) improve the conditions for data reuse and (iii) prioritise environmental datasets in implementation, especially those identified as high-value spatial datasets for implementing environmental legislation ([177]). Hence, a priority action is proposed in 2025.

Table 3: Hungary dashboard on 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 obstacle			
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, 'Hungary', Inspire Knowledge Base, https://knowledge-base.inspire.ec.europa.eu/hungary_en.

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

([173]) 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.

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

([175]) 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.

([176]) European Commission, 'Hungary', Inspire Knowledge Base, https://knowledge-base.inspire.ec.europa.eu/hungary_en.

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

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 ([178]) and the Strategic Environmental Assessment (SEA) Directive ([179]).

EU law provides for a flexible framework concerning EIAs. The aim of this framework is to ensure the application of the necessary environmental safeguards, while enabling speedy approval of projects. The Commission has contributed to simplifying and accelerating permitting for renewable energy projects and continues to support the Member States in this regard ([180]). Hungary is yet to take steps aiming to accelerate permit-issuing procedures taking advantage of the broad flexibilities offered by the EU legal framework, such as the establishment of one-stop shops and accelerated short deadlines for issuing permits for renewable energy projects.

The average speed in the EU for 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 ([181]). The duration of each step in an EIA process (screening, scoping, EIA report, public consultation, reasoned conclusion, development consent) varies considerably between Member States and projects. The data available from Hungary shows that the average duration of some parts of the EIA process (e.g. screening) are faster than the EU average, while other parts of the process (e.g. reasoned conclusion) are slower than average ([182]). 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 ([183]).

Since 2019, Hungary has been subject to an infringement procedure for not conforming with the proper transposition of several provisions of the EIA Directive. The Commission's assessment revealed over 24 grievances in the transposition.

Access to justice

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

This section provides a snapshot of the state of play of access to courts by the public, particularly when it comes to challenging plans, or the non-adoption of plans, under EU law, in the areas of water, waste, air quality and noise, irrespective of the form of the legal act (i.e. regulatory act or administrative decision).

As outlined in the 2022 EIR, both individuals and legal entities can challenge administrative decisions or omissions in Hungary if their rights or lawful interests are affected. An NGO has legal standing if an administrative activity affects its registered activity.

Nevertheless, there are some difficulties in challenging plans or programmes. If the act adopting a plan or programme is considered a legal measure or a public administrative measure without legal force and the relevant conditions are met, a constitutional complaint can be lodged with the Constitutional Court. However,

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

([179]) 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.

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

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

([182]) Details are not available regarding the average duration for all steps of the procedure. Therefore, we cannot assess the average duration of the entire EIA procedure.

([183]) 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

plans and programmes that are not considered such acts cannot be challenged.

In 2024, the Commission launched an infringement procedure ([184]) against Hungary for failure to ensure access to justice in environmental matters in several policy areas, such as nature, water, air quality, waste and noise.

In 2022, Hungary received four priority actions: (i) to significantly improve the information available on SEA and EIA procedures, ideally through a central database, and ensure that all related documentation is made available, ideally online; (ii) to collect and publish data on the level of public participation in SEA and EIA procedures, and encourage public participation by making clear and useable information available on how to comment on proposals; (iii) to improve access to courts by the public concerned when it comes to challenging administrative or regulatory decisions covering planning, in particular in relation to water, nature and air quality; (iv) to better inform the public about their right to access to justice, in particular by referring to the Commission e-justice factsheets on access to justice in environmental matters on national judicial and administrative portals[223]. Hungary has not made any progress on these priority actions.

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.
- Ensure correct transposition of the revised EIA Directive.
- Improve access to courts in national environmental cases by the public concerned and eliminate practical barriers, such as length of proceedings and excessive costs in some Member States.

Compliance assurance

Environmental compliance assurance covers all work undertaken by public authorities to ensure that industries, farmers and others fulfil their obligations to protect water, air and nature, to manage waste ([185]) and to remedy any environmental damage. It includes measures such as (i) compliance promotion, (ii) compliance monitoring (i.e. inspections and other checks), (iii) enforcement, that is, steps taken to stop breaches and impose sanctions, and (iv) ensuring damage prevention and remediation in line with the polluter-pays principle.

Compliance promotion, monitoring and enforcement

Non-compliance with environmental obligations may occur for different reasons, including poor understanding or lack of acceptance of the rules, opportunism or even criminality. Compliance promotion activities help 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.

As mentioned in the 2022 EIR, the annual parliamentary reports of the Prosecutor General provide statistics on the number of registered environmental crimes[235].

No information seems to be available on the platform for tackling environmental crime, including sharing information and training resources, established through a memorandum of understanding signed in 2021 by the Ministry of Agriculture, the National Tax and Customs Authority, the Hungarian National Police Headquarters, the Ministry for Innovation and Technology, the National Directorate-General for Disaster Management, the Ministry of the Interior, the Pest County Government Office and the National Food Chain Safety Office.

The Commission has received complaints relating to the environment in Hungary. The Commission notes the concerns raised by the issuing of permits to projects that were prioritised because of national or military interest. Procedures streamlined under the national emergency procedure became subject to critique from civil society, and the Commission is looking into the matter of permits issued to civil projects under military procedures.

The 2022 EIR recommended that Hungary (i) provide clear information on how the public and interest groups can report environmental issues or incidents, and encourage the public to make such reports; (ii) make information

([184]) European Commission, 'May infringements package: Key decisions', European Commission website, 23 May 2024, https://ec.europa.eu/commission/presscorner/detail/en/inf_24_2422.

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

available on the enforcement of environmental law, including on the prosecution of environmental crimes and the outcome of criminal proceedings; and (iii) improve the information available on environmental inspections and their results, ideally drawing together information from all public bodies with environmental compliance responsibilities. However, these actions concerning compliance promotion, monitoring and criminal and administrative enforcement are not assessed here due to a lack of systematic information.

The new EU Environmental Crime Directive

The EU has recently strengthened its legal framework on tackling the most serious breaches of environmental obligations, notably by the adoption of the new Environmental Crime Directive (ECD) (Directive (EU) 2024/1203) ([186]) and new sectoral legislation with stronger provisions on compliance monitoring, enforcement and penalties. Issues important for the transposition and the implementation of the relevant new instruments are highlighted below; a detailed assessment of these topics will be included in the next EIR once more implementation measures are put in place and more systematic information is available.

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

Member States are required to transpose the new ECD into national law by 21 May 2026 and to take additional measures to 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 the EU Network for the Implementation and Enforcement of Environmental Law ([187]), EnviCrimeNet ([188]), the European Network of Prosecutors for the Environment ([189]) and the EU Forum of Judges for the Environment ([190]). The European Union Agency for Law Enforcement Cooperation and European Union Agency for Criminal Justice Cooperation mechanisms for cooperation on cross-border cases should be used more systematically for environmental offences.

Environmental Liability Directive

The Environmental Liability Directive (ELD) ([191]) aims to ensure that environmental damage is remediated in kind at the expense of those who have caused it, in line with the polluter-pays principle. It helps to halt the net loss in biodiversity, as well as reducing the number of contaminated sites and protecting the environmental quality of groundwater and surface waters. The ELD is a cross-cutting tool and a key enabler for better implementation of EU environmental law.

The ELD addresses cases of significant environmental damage to protected species and natural habitats, and, when caused by operators carrying out certain potentially hazardous activities, also damages to water and to soil. The Commission has the legal obligation to periodically evaluate the ELD. The ELD has undergone the second evaluation ([192]), which will be finalised in 2025, and which was supported by an external study ([193]), containing, among other things, evidence, views, reports and other relevant information gathered from different stakeholder groups, including Member States.

One of the most relevant indicators in assessing implementation and enforcement of the ELD is the

([186]) Directive 2024/1203/EU on the protection of the environment through criminal law, https://eur-lex.europa.eu/eli/dir/2024/1203/oj/eng.
([187]) https://www.impel.eu/en.
([188]) LIFE+SATEC project (https://webgate.ec.europa.eu/life/publicWebsite/project/LIFE20-PRE-ES-000001/fight-against-environmental-crime-at-a-strategic-level-through-the-strengthening-of-envicrimenet-network-of-experts-in-environmental-criminal-investigations).
([189]) https://www.environmentalprosecutors.eu/.
([190]) https://www.eufje.org/index.php?lang=en.
([191]) Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02004L0035-20190626).
([192]) Commission staff working document - Evaluation of the Environmental Liability Directive, forthcoming 2025.
([193]) 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.

number of environmental damage cases handled under the ELD, especially when this number is compared with the previous reporting period. Fewer ELD cases were reported in the second reporting period (2013–2022) than in the first one (2007–2013). However, the downward tendency in the number of ELD occurrences and their overall low number do not necessarily mean that the ELD has achieved its objectives, as it needs to be compared with the overall number of environmental damage cases, some of which may have been handled under the other liability instruments.

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

From 26 June 2019 to 31 December 2021, Hungary reported one occurrence of an imminent threat of environmental damage, namely biodiversity damage, and 14 occurrences of environmental damage under the ELD. In the previous reporting period, there were 563 occurrences of environmental damage reported under the ELD. Hungary experienced the largest decrease between the two reporting periods among Member States. The substantially diminished numbers may be at least partially attributed to the different methods of reporting the occurrences. For the second reporting period, the central ELD competent authority in Hungary screened data from authorities on 189 environmental damage cases, concluding that only 14 were ELD occurrences. The occurrences reported by Hungary for the first reporting period were not similarly screened. In addition, the second reporting period covered only three years.

Hungary has not introduced mandatory financial security for ELD liabilities. Environmental insurance policies for remediating on-site and off-site pollution from a sudden and accidental incident on an insured site are available. They do not provide cover specifically for ELD liabilities, for gradual pollution or for environmental damage other than pollution. Demand for such policies is low. Environmental extensions to general liability policies that provide cover for remediating off-site pollution from a sudden and accidental incident on an insured site are available. Most extensions have a sublimit on liability. Demand for them is greater than demand for environmental insurance policies but is still low.

The 2022 EIR, in relation to the ELD, recommended that Hungary provide clear information on how the public and interest groups can report environmental issues or incidents (while encouraging the public to make such reports) and information on environmental liability cases and other cases involving environmental damage. Additionally, in relation to the ELD, the 2022 EIR recommended that Hungary implement a financial security system for environmental liability to meet the costs of environmental damage. The progress on these priority actions is limited. Therefore, efforts to implement them should continue along with those related to the 2025 priority action.

2025 priority action

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

EU-supported environmental capacity building

The Commission's 2023 Compact ([194]) initiative to enhance the administrative space identifies the capacity to lead the green transition as one of three key pillars, along with the public administration skills agenda and the capacity for Europe's Digital Decade. Compact also recognises the role of the EIR reporting tool in improving environmental governance. The two main capacity-building opportunities for the environment provided by the European Commission are the TSI ([195]) and the TAIEX-EIR PEER 2 PEER tool ([196]). 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.

([194]) 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).

([195]) 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).

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

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

- Developing a supervisory framework for financial risks stemming from biodiversity-related losses in Hungary Central Bank of Hungary (2022) ([197]);
- Provision of capacity-building within the 'Magyar Fejlesztési Bank (Hungarian Development Bank) Plc.' for the effective and efficient distribution of sustainability-linked loan programmes (2023);
- Integration of environmental dimensions in public finances – Implementing the 'do no significant harm' (DNSH) principle in public funding programme, Ministry of Culture and Innovation (2023);
- Industrial ecosystems, Ministry of Culture and Innovation (2023);
- Climate adaptation, Ministry of Interior (2023);
- Effects of compliance with the ESG ([198]) framework and principles on suppliers, Ministry of Culture and Innovation (2023);
- Accelerating climate adaptation measures in water management, Ministry of Interior (2024);
- Reinforcing SMEs' competitiveness and green transition in export activities, HEPA Hungarian Export Promotion Agency (2025).

The Commission's TAIEX-EIR PEER 2 PEER tool

The Commission launched the TAIEX-EIR PEER 2 PEER tool in 2017. It aims to facilitate peer-to-peer learning among Member States' environmental authorities through workshops (single or multi-country), expert missions (where a delegation of experts travels to the requesting institution) and study visits (where a delegation from the requesting institution travels to a host country). Flagship events are those requested by the European Commission to present new and upcoming environmental legislation and policy in all Member States ([199]).

Workshops involving Hungary are as follows:

- Decentralised bio-waste recycling (9–11 October 2023);
- Future challenges in the air protection in Europe (24 November 2022).
- Online platforms: EU Batteries, Packaging and Packaging Waste Regulation (28-29 October 2024).
- New aspects in the cross-border cooperation against environmental crime (19–20 November 2024).

In 2022, Hungary received a priority action to continue to improve environmental governance, in particular administrative capacity and coordination at the national level. This recommendation is notably related to the fact that Hungary has no ministry dedicated to the environment. As the successive reorganisations left responsibility for environmental policies in several ministries, the priority action is repeated. Currently, two ministries are dealing with the environment: the main ministry with responsibility for the environment is the Ministry of Energy (environmental policy, air quality, noise, SEA, EIA, remediation, climate, water utilities, water management, water protection and flood prevention), while the Ministry of Agriculture is the main contact for nature protection (and water for agriculture and irrigation). This set-up requires increased cooperation to solve environmental problems and therefore Hungary should ensure good coordination between the authorities and provide the appropriate resources for environmental issues.

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.

([197]) https://www.oecd.org/en/events/2024/06/taiex-tsi-mnb-oecd-ec-launch-event-technical-implementation-of-the-supervisory-framework-for-assessing-nature-related-financial-risks-to-the-hungarian-financial-sector.html.

([198]) 'ESG' means 'environmental, social and governance'.

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

Annex

2025 priority actions

Circular economy and waste management

Transitioning to a circular economy

- 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

- Implement, harmonise and gradually increase landfill taxes to phase out landfilling of recyclable and recoverable waste.
- Ratify international conventions on ship recycling.
- Improve separate collection at source e.g. through economic instruments, investing in infrastructure for separate collection, sorting and recycling, and increasing public awareness.
- Increase reuse of products and scale up waste recycling infrastructure associated with the higher steps of the waste hierarchy. In particular, improve collection and increase treatment capacity for bio-waste.
- Improve municipal waste preparation for reuse and recycling.
- Increase the recycling rates of packaging waste.
- Increase the collection and recycling rate of WEEE.
- Invest in waste prevention measures to reduce the total amount of waste generated.
- Develop EPR schemes for problematic waste and introduce fee modulation.
- Ensure the achievement of the 2025 waste targets, following the recommendations made by the Commission in the early warning reports where applicable.

Biodiversity and natural capital

Nature protection and restoration – Natura 2000

- 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

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

Recovery of ecosystems

- Implement eco-schemes and agri-environmental measures and practices to address the environmental needs of Hungary.
- Implement and scale up the uptake of organic farming practices.
- Promote the active management of grasslands through extensive grazing to maintain the condition of these semi-natural habitats.
- Reduce the excessive area of sealed and artificialised soil and remediate degraded areas of soil. If appropriate, consider formally committing to targets for land-degradation neutrality under the relevant United Nations Convention to Combat Desertification agreement.
- Improve conservation status of forests by promoting sustainable forest managment and ensuring compliance with the Habitats Directive before granting/renewing permits for forest logging.

Prevention and management of invasive alien species

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

- Ratify the International Convention for the Control and Management of Ships' Ballast Water and Sediments of 2004 (BWM Convention).

Ecosystem assessment and accounting

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

Zero pollution

Clean air

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

Industrial emissions

- 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 updates to permits following the publication of BAT conclusions.
- Ensure effective public participation and access to justice in relation to the IED.

Major industrial accidents prevention – Seveso

- Ensure full and correct transposition of the Seveso III Directive.

Noise

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

Water quality and management

- Improve river continuity and ecological flows, boosting efforts on nature-based solutions to reduce hydromorphological pressures.
- Ensure periodic reviews of permits for discharges, abstractions and other water uses, including hydropower pressures.
- Reduce pollution from nutrients, chemicals, metals and saline discharges.
- Better justify exemptions to the achievement of good status.
- Improve the classification of water bodies and strengthen monitoring systems.
- Develop more robust programmes of measures, tackle obstacles identified in the implementation of measures and ensure adequate financing for implementation, including through better use of cost recovery and the polluter-pays principle.
- FRMPs should provide details on how the FHRMs were used in the choice of measures and how to consider pluvial flooding.
- Consider future climate scenarios in the FRMPs.
- Better explain the choice and implementation of flood prevention and protection measures (prioritisation, monitoring, costs of measures).
- Improve public consultation and stakeholder involvement.
- Take action to ensure full compliance with the Drinking Water Directive.
- Tackle nutrient pollution, especially nitrates from agriculture, through the implementation of the Nitrates Directive.
- Take the necessary measures to ensure full implementation of the current UWWTD, taking into account the new requirements of the recast directive.

Chemicals

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

Climate action

- Implementing all polices and measures that are needed to achieve targets laid down in the Effort Sharing Regulation (ESR) and the Land Use and Land-Use Change and Forestry (LULUCF) Regulation. More detailed priority actions are set out in the assessment of the final National Energy and Climate Plan (NECP) ([200]).

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.
- Ensure correct transposition of the revised EIA Directive.
- Improve access to courts in national environmental cases by the public concerned and eliminate practical barriers, such as length of proceedings and excessive costs in some Member States.

Compliance assurance

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

EU-supported environmental capacity building

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

([200]) European Commission, National energy and climate plans. Available at https://commission.europa.eu/energy-climate-change-environment/implementation-eu-countries/energy-and-climate-governance-and-reporting/national-energy-and-climate-plans_en.