

Brussels, 8 July 2025 (OR. en)

11333/25 ADD 4

ENV 670 CLIMA 256 AGRI 326 PECHE 203 ECOFIN 964 COMPET 701

COVER NOTE

From:	Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director
date of receipt:	7 July 2025
To:	Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union
No. Cion doc.:	SWD(2025) 302 final
Subject:	COMMISSION STAFF WORKING DOCUMENT
	Environmental Implementation Review 2025
	Country Report - BULGARIA
	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

Delegations will find attached document SWD(2025) 302 final.

Encl.: SWD(2025) 302 final

11333/25 ADD 4

TREE.1.A

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Brussels, 7.7.2025 SWD(2025) 302 final

COMMISSION STAFF WORKING DOCUMENT

Environmental Implementation Review 2025 Country Report - BULGARIA

Accompanying the document

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

2025 Environmental Implementation Review for prosperity and security

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{COM(2025) 420 final} - {SWD(2025) 300 final} - {SWD(2025) 301 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) 312 final} - {SWD(2025) 313 final} - {SWD(2025) 314 final} - {SWD(2025) 315 final} - {SWD(2025) 316 final} - {SWD(2025) 317 final} - {SWD(2025) 318 final} - {SWD(2025) 319 final} - {SWD(2025) 320 final} - {SWD(2025) 321 final} - {SWD(2025) 321 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 opportunities regarding environmental legal implementation in Bulgaria. The purpose of this report is 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 Bulgaria, such challenges have been lingering since the first EIR in 2017 and require urgent action.

Despite some progress made in recent years on **municipal** waste management, there are some issues to address. Municipal waste incineration represents 3% of the total generated municipal waste that was incinerated in 2022. Bulgaria still relies strongly on landfilling despite the landfilling rate decreasing significantly over the past 10 years. A positive development is that Bulgaria closed its substandard landfills.

On water management, Bulgaria did not submit the third river basin management plans (RBMPs) and second flood risk management plans (FRMPs) by March 2022, as required under the Water Framework Directive and the Floods Directive, respectively. The Commission opened an infringement procedure for late reporting. Bulgaria finally reported its second FRMPs in January 2024, and its third RBMPs in January 2025. Bulgaria has significant scope to improve biodiversity and nature protection and restoration. Several Bulgarian Natura 2000 sites have site-specific conservation objectives; further efforts to

complete the work for all sites are key. Most importantly, conservation measures have yet to be adopted since conservation action on the ground is far from being sufficient. To ensure efficient progress, Bulgaria needs to secure financially stable and operational management structures that are in charge of the Natura 2000 sites at the central and regional levels.

Despite progress in implementing measures addressing air pollution, there is still cause for concern in some parts of Bulgaria's territory. Persistent breaches of air quality requirements, which have severe negative effects on health and the environment, are being followed up by the European Commission through infringement procedures covering all Member States concerned, including Bulgaria.

On **climate change**, there is some progress in promoting zero-emission road transport solutions and in renovating building stock. The uptake of renewables is increasing but Bulgaria still falls behind Member States of comparable size in terms of total new installed capacity. Bulgaria has one out of three regions identified as hotspots of climate risks that are most affected by climate change: low-lying coastal regions. Bulgaria is also vulnerable to extreme climate events such as heatwaves and heavy rainfall.

Bulgaria's overall **environmental investment gap** is EUR 2.4 billion per year, representing around 2.87 % of the national GDP, more than the EU average (0.77 %). The highest shares are for biodiversity and ecosystems, and water management. It is necessary to ensure an increased level of financing, and further exploit opportunities in private financing to close investment gaps.

On the positive side, in the field of **environmental governance**, while Bulgaria needs to improve legal standing and access to courts for the public concerned, Bulgaria has taken steps to streamline environmental assessments by incorporating the Habitats Directive appropriate assessment, the industrial emissions permit process and the Seveso process for chemical safety into its environmental impact assessment procedures. Bulgaria also has an excellent record under the Bathing Water Directive: out of the 96 Bulgarian bathing waters, 91 (94,8%) were of excellent quality. No bathing waters were found of sufficient or poor quality.

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

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

Part I: Thematic areas

1. Circular economy

Transitioning to a circular economy

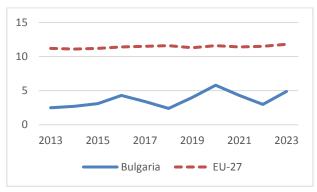
Advancing the transition to a circular economy in the EU will reduce the environmental and climate impact of our industrial systems by reducing input materials, keeping products and materials in the loop for longer and reducing waste generation, thus decoupling economic growth from resource consumption. 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. The CMUR in Bulgaria reached a peak of 5.8 % in 2020 and then declined until 2022, before the country witnessed an increase to 4.9 % in 2023. However, this is still well below the EU average of 11.8 % (Figure 1).

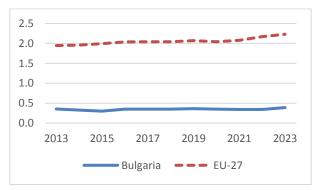
Figure 1: CMUR (%), 2013–2023



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

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 0.38 generated per kg of material consumed in 2023, Bulgaria's resource productivity is well below the EU average of EUR 2.23 per kg.

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



NB: The unit of measure 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.

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

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

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

Policies and measures

In parallel with European initiatives under the CEAP, Member States are encouraged to adopt and implement circular strategies at the national, regional and city levels. These should be tailored to each national and local reality, to harness the proximity economy's (5) 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 (6) 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 October 2022, Bulgaria adopted its strategy and action plan for the transition to a circular economy for 2022–2027 (³). The strategy is built around three key goals: creating a green, competitive economy; reducing waste and maximising resource use; and fostering an economy that benefits consumers. The accompanying action plan outlines specific measures to achieve these objectives. Central to the strategy is improving resource efficiency by prioritising waste management practices, including preventing waste generation, promoting reuse and recycling, reducing landfill use, and minimising the harmful effects on both the environment and human health.

The strategy and the accompanying action plan were adopted under the wider umbrella of Bulgaria's national development programme for 2030, Bulgaria 2030 (4). It is a strategic framework, consisting of 13 national priorities that determine the vision and overall goals of development policies in all sectors of state governance. Priority 4 'Circular and low carbon economy' has the goals of reducing the resource intensity of the country's economy and increasing the efficiency of the materials used. The first action plan for the implementation of Bulgaria 2030 for 2022–2024 was adopted in 2022; it was followed by a second action plan, with specific measures for 2024–2026, adopted in March 2024.

The national development programme shifted the focus from landfilling to the prevention, reuse, recycling and recovery of waste. Rational and responsible use of waste will be a fundamental prerequisite for improving the

(³)

(4)

environment and achieving sustainable economic growth. Bulgaria has not adopted sectoral strategies on textiles or plastics and has not updated its 2011–2020 strategic plan (SP) on construction and demolition waste. However, the national development programme Bulgaria 2030 includes initiatives targeting these sectors.

The 2021–2028 waste management plan (5) envisages the implementation of the measures included in the circular economy strategy concerning products containing critical raw materials (CRMs). It also sets the aims of increasing qualifications and skills regarding effective use of resources under the green transition and the circular economy and raising awareness of practices and behaviours in sustainable consumption and in relation to the circular economy.

Green public procurement

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

Some important legislative measures have been implemented to introduce mandatory green public procurement in Bulgaria for the first time.

The Public Procurement Law (PPL) has been amended to include minimum environmental requirements in the tender documentation for all public contracting authorities under the PPL. According to the amendments (new Article 47(a) and Section 2, p. 9a of the supplementary provisions to the PPL), when public contracts of a value referred to in the PPL (Article 20(1) and (2)) are awarded, the procurement documents must contain environmental requirements for the products that are supplied or used for the services provided. Contracting authorities set the requirements through technical specifications or award criteria (under Article 70, paragraph 2, item 2 or 3).

The products, the mandatory minimum requirements for environmental protection and the manner of proving compliance with these requirements are determined by an ordinance issued by the Minister of Environment and Water together with the Minister of Finance and the Minister of Economy and Industry.

(⁵)

https://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&ld=1559.

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onsists%20of,for%20monitoring%20the%20implementation%2 0of%20the%20strategic%20document.

https://www.moew.government.bg/bg/otpaduci/strategicheski-dokumenti/.

In compliance with the legal requirements, a draft ordinance on the environmental requirements for certain products subject to public procurement has been created. It determines the product scope, the minimum mandatory environmental requirements for the products procured by public procurers and the means of verifying these requirements. Minimum mandatory environmental requirements are defined for the following product groups: copying and graphic paper, indoor cleaning services, computers and monitors, and food-catering services and vending machines. These requirements are based on the core green public procurement criteria of the European Commission. Some of them are directly related to the circular economy, including:

- purchasing recycled office paper made entirely from recovered paper fibres;
- using eco-labelled cleaning products for cleaning services;
- preventing food and beverage waste and preventing, sorting and disposing of other waste – for catering services;
- using reusable cups for vending machines for food and drinks.

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, Bulgaria had 106 products out of 98 977, and 8 licences out of 2 983 registered in the EU Ecolabel scheme. This shows a continued low take-up of both the products and the licences. Moreover, as of October 2024, 20 organisations in Bulgaria were registered in EMAS (6) 3 more than in 2021.

The CMUR of Bulgaria increased by 1.9 percentage points in 2023. This represents some progress towards achieving the 2022 priority action to take measures to increase the rate.

In addition, Bulgaria adopted its circular economy strategy in 2022, showing some progress towards

achieving the 2022 priority action. Implementation is now needed.

2025 priority actions

 Adopt measures to increase the circular material use rate.

Waste management

Turning waste into a resource is supported by:

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

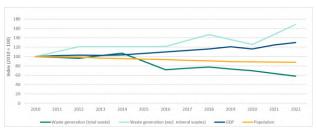
As Figure 3 shows, the total amount of waste generated in Bulgaria has decreased over the last 12 years. This trend is primarily driven by the largest waste categories – namely, mineral waste from mining and quarrying. Excluding these categories results in an increasing trend of generated waste, mainly due to an increase in recyclable and mixed ordinary waste. Except for a drop

http://ec.europa.eu/environment/emas/emas registrations/st atistics graphs en.htm

⁽⁶⁾ European Commission, 'Eco-management and audit scheme (EMAS)', European Commission website, November 2021,

in 2020, most likely to be due to the COVID-19 outbreak, Bulgaria's GDP tended to increase. While total waste generation has decoupled from economic growth, total waste excluding major mineral waste has increased more than the economy has grown.

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



Sources: Eurostat, 'GDP and main components (output, expenditure and income)', nama_10_gdp, accessed 15 October 2024, https://ec.europa.eu/eurostat/databrowser/view/nama 10 gdp_cu_stom_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

The CRM Act aims to ensure the EU's access to CRMs, needed in increasing amounts for the green and digital transitions and for its defence and space ambitions. An important lever to increase both the security and the sustainability of the CRM supply is to increase the contribution of secondary raw materials and to moderate overall demand for CRMs. Circularity is therefore a key priority in this context. Bulgaria has an important mining and metallurgy industry and the extraction and recycling of CRMs is dealt with in the national waste management plan for 2021-2028 (NWMP), the circular economy transition strategy for 2022–2027 and the related strategy action plan (Decision No 832 of the Council of Ministers of 26 October 2022). One of the objectives of the strategy is for Bulgaria to contribute to the supply of CRMs, which should be supported by a national CRM strategy and CRM act.

Council of Ministers' Decision No 508 of 18 July 2024 adopted the national scientific programme 'Critical and strategic raw materials for green transition and sustainable development', supporting research to explore, extract in an environmentally sound manner and process CRMs and strategic raw materials from various sources, including waste originating from processing primary raw materials and from secondary resources (from recycling).

Construction and demolition waste

Construction and demolition waste accounts for almost 40 % of all waste generated in the EU. A recent study (7) 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 an increase in the recycling and preparation for reuse of construction and demolition waste 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 Bulgaria in 2022 was 87.8 %, compared with the EU average of 79.8 %. The absolute figures (in t per year) of treated and recycled mineral construction and demolition waste vary significantly over the years (e.g. the recycled amount varies from around 126 000 t in 2018 to over 900 000 t in 2020, while dropping to around 286 000 t in 2022). Measures to further increase the rate of recycling and preparation for reuse of construction and demolition waste include separating collection at the source - for instance, through digitalised pre-demolition audits (8) ('resource assessments'); extended producer responsibility and other economic instruments; and upstream measures such as increasing the recycled content in construction products and the circular design (9) of construction works.

⁽⁷⁾ 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, 2024, https://publications.jrc.ec.europa.eu/repository/handle/JRC135 470.

⁽⁸⁾ 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

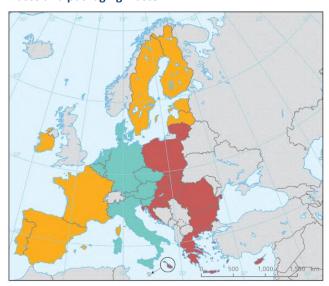
works – Updated edition 2024, Publications Office of the European Union, Luxembourg, 2024, https://op.europa.eu/en/publication-detail/-/publication/d63d5a8f-64e8-11ef-a8ba-01aa75ed71a1/language-en.

European Commission, Circular Economy – Principles for buildings design, Brussels, 2020, https://ec.europa.eu/docsroom/documents/39984.

Boosting implementation – the 2023 Waste Early Warning Report

This section focuses on the management of municipal and packaging waste (10), for which EU law sets mandatory recycling targets. In June 2023, the Commission published the *Waste Early Warning Report* (11) identifying the general trends in waste management and the Member States at risk of missing 2025 waste targets (see Figure 4). Bulgaria is at risk of missing both the municipal waste target and the packaging waste target. Bulgaria 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 timeframe. Regarding the 2025 targets, 11 Member States, not including Bulgaria, have used this prerogative.

In the Waste Early Warning Report, the Commission recommended that Member States accelerate their efforts to improve their recycling performance. The Commission is, on one hand, working together with the national authorities and stakeholders to speed up the implementation of measures necessary to meet the targets, including through dedicated financing. On the other hand, the Commission is pursuing enforcement actions against those Member States that, based on data submitted to the Commission, do not achieve the targets of the Waste Framework Directive, the Packaging and Packaging Waste Directive and the Directive on Waste Electrical and Electronic Equipment (12).

Municipal waste

Municipal waste generation in Bulgaria decreased between 2010 and 2022 (Figure 5). In 2022, the country generated 488 kg of municipal waste per capita, which is slightly below the estimated EU-27 average of 513 kg per capita. Bulgaria still relies strongly on landfilling despite the landfilling rate having decreased significantly over the past 10 years, reaching 54 % in 2022. Municipal waste incineration plays a minor role in Bulgaria, as only 3 % of the generated municipal waste was incinerated in 2022.

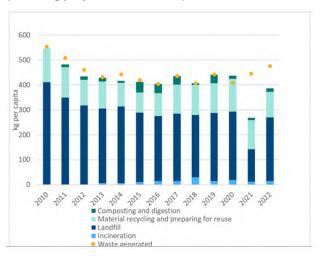
⁽¹⁰⁾ Municipal waste consists of (i) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, biowaste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses 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).

^{(11) &}lt;a href="https://environment.ec.europa.eu/publications/waste-early-warning-report">https://environment.ec.europa.eu/publications/waste-early-warning-report en.

^{(12) &}lt;a href="https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32012L0019">https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32012L0019.

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



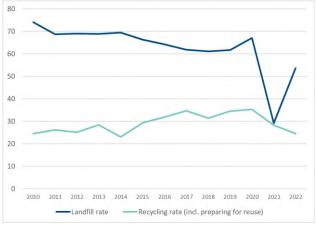
NB: The total of municipal waste reported as landfilled, incinerated, materially recycled and composted/digested is much lower than the reported 'total treatment' values for 2021 and 2022. As of reference year 2020, new reporting rules apply to calculating recycled municipal waste pursuant to the targets laid down in Article 11(2)(c–e) of Directive 2008/98/EC. However, it is unclear based on the information available whether these new reporting rules have been implemented in Bulgaria yet.

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

Bulgaria has shown low and stagnating waste recycling rates over recent years (Figure 6). In 2022, the municipal waste recycling rate stood at 25 %, which is significantly below the estimated EU-27 average of 49 %.

Bulgaria has reported data to show compliance with the preparing for reuse and recycling target of 55 % by 2025, as laid down 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 4 (voluntary reporting) is below 1 percentage point for the rate in both 2021 and 2022.

Figure 6: Recycling (including preparation for reuse) and landfill rates (%), 2010–2022¹³



Packaging waste

Bulgaria's packaging waste generation has increased since 2010 (Figure 7). In 2022, the country generated 79 kg per capita, which is significantly below the estimated EU average of 186 kg per capita in the same year and the lowest among all Member States.

It is essential to view these data with caution, as they might be underestimated (14). Steps have been taken to improve data quality, addressing issues such as the under-reporting of packaging put on the market and freeriding (15).

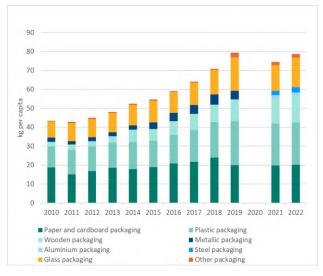
¹⁴⁾ Commission staff working document – The early warning report for Bulgaria, SWD(2023) 176 final of 8 June 2023, https://eur-lex.europa.eu/legal-

content/EN/TXT/?uri=SWD%3A2023%3A176%3AFIN; Eunomia, Study to identify Member States at risk of non-compliance with the 2020 target of the Waste Framework Directive and to follow-up Phase 1 and 2 of the compliance promotion exercise — Early warning report: Bulgaria, Bristol, 2018; European Environment Agency (EEA), Early warning assessment related to the 2025

targets for municipal and packaging waste – Bulgaria, Copenhagen, 2022, https://www.eea.europa.eu/publications/many-eu-member-states/bulgaria/view.

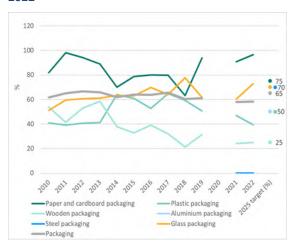
EEA, Early warning assessment related to the 2025 targets for municipal and packaging waste – Bulgaria, Copenhagen, 2022, https://www.eea.europa.eu/publications/many-eu-memberstates/bulgaria/view.

Figure 7: Packaging waste generation, 2010-2022 (16)



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 cus tom 842634/default/table?lang=en.

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



Source: Eurostat, 'Packaging waste by waste management operations', env_waspac, last updated 23 October 2024, accessed 28 October 2024,

https://ec.europa.eu/eurostat/databrowser/view/ENV WASPAC cus tom 842634/default/table?lang=en.

Note: no data available for 2020; the recycling rates for both steel and aluminium packaging in 2021 and 2022 are 0 %.

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).

Bulgaria's national waste prevention programme is integrated into the NWMP (17). Waste prevention measures are clearly indicated in a separate subprogramme with the strategic goal of reducing the harmful impact of waste by preventing its generation and promoting its reuse. The priority waste streams for prevention, also covered by the NWMP, are food waste, household waste, industrial waste, construction waste and hazardous waste.

Policies to encourage separate collection and recycling

Since the publication of the early warning report (¹⁸), Bulgaria has not made progress on improving its preparing for reuse and recycling rate of municipal waste. However, the landfill rate of municipal waste has significantly decreased although data for 2021 seem to show inconsistencies. Bulgaria's rates of composting and anaerobic digestion remain significantly low and were previously identified as a key factor for weak performance (¹⁹). There are discrepancies in the data on packaging waste and the actual progress is not clear.

Policies to discourage landfilling or incineration

A landfill tax was introduced in Bulgaria in 2011. The tax was planned to be increased to BGN 95/t in 2022

- (16) EEA, Early warning assessment related to the 2025 targets for municipal and packaging waste – Bulgaria, Copenhagen, 2022, https://www.eea.europa.eu/publications/many-eu-memberstates/bulgaria/view.
- (17) EEA, Waste Prevention Country Profile Bulgaria, Copenhagen, 2023, <a href="https://www.eea.europa.eu/themes/waste/waste-prevention/countries/2023-waste-prevention-country-fact-sheets/bulgaria waste prevention 2023; Ministry of Environment and Water, Draft National Waste Management Plan 2021–2028, Sofia, 2021, https://www.moew.government.bg/bg/proekt-na-nacionalen-plan-za-upravlenie-na-otpaducite-2021-2028/.
- (18) Commission staff working document The early warning report for Bulgaria, SWD(2023) 176 final of 8 June 2023, https://eurlex.europa.eu/legalcontent/EN/TXT/?uri=SWD%3A2023%3A176%3AFIN.

Commission staff working document – The early warning report for Bulgaria, SWD(2023) 176 final of 8 June 2023, https://eurlex.europa.eu/legal-content/EN/TXT/?uri=SWD%3A2023%3A176%3AFIN;
Commission staff working document – Environmental Implementation Review 2022: Country Report – Bulgaria, SWD(2022) 255 final of 8 September 2022, https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022SC0262&qid=170195259 5514. Commission staff working document – Environmental Implementation Review 2022: Country Report – Bulgaria, SWD(2022) 255 final of 8 September 2022, https://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022SC0262&qid=170195259

5514.

(EUR 50/t) (²⁰). The landfill tax is close to the average landfill tax of Member States using such taxes. Landfill tax revenues are designated for municipal use to enhance separate waste collection, develop waste treatment infrastructure and enhance waste prevention. If a municipality achieves specified goals under the Waste Management Act, the landfill tax is reduced by 50 %. This deduction serves as an economic incentive, encouraging municipalities to decrease landfilling, increase recycling and recovery, and accumulate funds for waste treatment infrastructure construction. In Bulgaria, there is no tax on municipal waste incineration and no plans to introduce such a tax (²¹).

As noted in the previous Environmental Implementation Review (EIR) country report, in 2013, Bulgaria introduced a law that required waste collection fees to be calculated based on the waste generated, instead of on the value of the real estate property. It was due to enter into force on 1 January 2015 but this has been postponed a number of times, with the last target date being 1 January 2022. However, in February 2021, an amendment to the Law on Local Taxes and Fees through an amendment to the 2020 Pandemic Law (22) further postponed the implementation of the polluter-pays principle until 1 January of the second year following the publication of the 2021 census results (i.e. until January 2025). In September 2024, Bulgaria postponed applying the polluter-pays principle once again, this time until January 2026. That is 17 years after the Waste Framework Directive (23) entered into force and 19 years after the accession of Bulgaria to the EU, when the polluter-pays

principle became binding. An infringement procedure to address the issue is ongoing (²⁴).

In the 2022 EIR, Bulgaria had several priority actions in the field of waste management. Bulgaria has made some progress on improving the separate collection of waste, including biowaste, and some progress on using economic instruments, and has a waste management plan in place in line with the requirements of the revised Waste Framework Directive. Bulgaria has made no progress on the ratification of the Hong Kong Convention on Ship Recycling.

2025 priority actions

- Ratify international conventions on ship recycling.
- 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 biowaste.
- 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 biowaste.
- Improve municipal waste preparation for reuse and recycling.
- Invest in waste prevention measures to reduce the total amount of waste generated.
- Ensure the achievement of the 2025 waste targets, following the recommendations made by the Commission in the Early Warning Reports where applicable.

⁽²⁰⁾ EEA, Technical note accompanying the EEA briefing 'Economic instruments and separate collection – Key instruments to increase recycling', Copenhagen, 2023, https://www.eea.europa.eu/publications/economic-instruments-and-separate-collection/technical-note-accompanying-the-eea/view.

⁽²¹⁾ EEA, Early warning assessment related to the 2025 targets for municipal and packaging waste – Bulgaria, Copenhagen, 2022, https://www.eea.europa.eu/publications/many-eu-memberstates/bulgaria/view.

⁽²²⁾ act on measures and actions during the state of emergency, announced by decision of the National Assembly of 13 March 2020, and addressing the consequences, §15, @ YPERLINK "https://dv.parliament.bg/DVWeb/showMaterialDV.jsp?idMat= 155972"https://dv.parliament.bg/DVWeb/showMaterialDV.jsp?idMat=155972

^{(&}lt;sup>23</sup>) 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).

^{(&}lt;sup>24</sup>) INFR(2023)2064.

2. Biodiversity and natural capital

Global and EU biodiversity frameworks

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

An updated national biodiversity strategy for Bulgaria was presented for public consultations (²⁸) in 2022. It sets national objectives and targets to be met by Bulgaria in the next decade to contribute to the EU and global biodiversity commitments and formulates specific measures and actions.

The planned actions aim to tackle long-standing issues and weaknesses concerning nature conservation and biodiversity in Bulgaria – the enforcement of environmental regulations, the effective management of protected areas based on sound monitoring and clearly defined objectives, and the establishment of a coherent and representative national structure for the management of the country's rich natural heritage.

No revised draft has been published since the consultations, and no date has been announced for the adoption of the updated strategy.

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

2025 priority actions

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

Nature protection and restoration – Natura 2000

Natura 2000 (²⁹), the largest coordinated network of protected areas in the world, is key to the achievement of the objectives set out in the Birds and Habitats Directives. These objectives are to ensure the long-term protection, conservation and survival of Europe's most

- (25) EU Biodiversity Strategy Actions Tracker (https://dopa.jrc.ec.europa.eu/kcbd/actions-tracker/).
- (26) EU Biodiversity Strategy Dashboard (https://dopa.jrc.ec.europa.eu/kcbd/EUBDS2030dashboard/?version=1).
- (27) Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869 (OJ L, 2024/1991, 29.7.2024), http://data.europa.eu/eli/reg/2024/1991/oj; see also the Commission web page on the law
- (https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en).
- (28) https://dialog.bmuv.de/bmu/de/process/58604.
- (29) Natura 2000 comprises sites of community importance (SCIs), designated pursuant to the Habitats Directive, as well as special protection areas (SPAs), classified pursuant to the Birds Directive. Numbers of protected areas in Figure 9 do not add up to the total of SCIs plus SPAs, because some SCIs and SPAs overlap. An SAC is an SCI designated by a Member State.

valuable and threatened species and habitats and the ecosystems they underpin. Key milestones towards meeting the objectives of the Birds and Habitats Directives are (i) the setting up of a complete and coherent Natura 2000 network; (ii) the designation of sites of community importance (SCIs) as special areas of conservation (SACs) (30); and (iii) effective management of all Natura 2000 sites through the setting of site-specific conservation objectives and measures.

Setting up a complete and coherent network of Natura 2000 sites

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

Meeting these commitments requires the full implementation of Article 3 of the Habitats Directive. The Natura 2000 network should represent a complete and coherent ecological network composed of sites hosting natural habitat types and species of community interest. Natura 2000 shall 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.

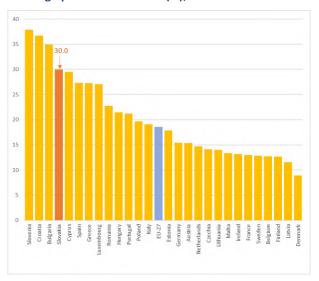
Bulgaria hosts 92 habitat types (31) and 209 species (32) covered by the Habitats Directive. The country also hosts populations of 184 bird taxa listed in the Birds Directive Annex I (33) and 126 migratory bird taxa.

As shown in Figure 9, in 2023, 34.9 % of the territory of Bulgaria was covered by Natura 2000 sites (EU coverage: 18.6 %), with special protection areas (SPAs) classified under the Birds Directive covering 23.1 % (EU coverage: 12.8 %) of Bulgaria, while SACs under the Habitats Directive covered 30.3 % of the country (EU coverage: 14.3 %).

Considering both areas covered by Natura 2000 and other nationally designated protected areas, Bulgaria legally protects 41% of its terrestrial areas (EU-27

coverage: 26.1 %) and 8 % of marine areas (EU-27 coverage: 12.3 %) (34).

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

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 objectives 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 requires Member States must establish and implement measures to achieve these objectives.

The six-year deadline set by the Habitats Directive to designate SCIs as SACs and establish appropriate conservation objectives and measures has expired for 229 sites in Bulgaria. Bulgaria's failure to designate SACs and to establish site-specific conservation objectives and

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

⁽³¹⁾ European Environment Agency (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.

⁽³²⁾ EEA, 'Number of habitats and species per Member State', Article 17 dashboard, 19 December 2019, https://www.eea.europa.eu/themes/biodiversity/state-of-

<u>nature-in-the-eu/article-17-national-summary-dashboards/general-information-on-habitats-and-species.</u>

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

⁽³⁴⁾ Eurostat dataset env bio4, 12 March 2025

measures was subject to an infringement procedure, which reached the Court of Justice of the European Union. The judgment of the Court of Justice (35) confirmed Bulgaria's failure to designate all the SACs, dismissing the claims concerning a systemic breach of the establishment of conservation objectives and measures on formal grounds (without judging the substance of the claims).

Bulgaria completed the designation of SACs in 2024. However, Bulgaria has not yet established site-specific conservation objectives for a large number of its Natura 2000 sites. Most importantly, despite providing for some measures dispersed in various documents, Bulgaria has not yet established the necessary conservation measures required by the Habitats Directive in all SACs. Work on setting conservation objectives started only at the end of 2021 and work on the conservation measures is yet to begin. These delays continue to negatively affect the effective management of nature in Natura 2000 sites, and the country needs to step up efforts in this regard. Appropriate capacities in terms of both financing and expertise to ensure efficient management of the sites are also lacking.

Bulgaria's failure to properly assess the impacts of projects and plans on the Natura 2000 sites has led to an infringement action by the Commission (³⁶). The country has made good progress in this field by introducing changes in national legislation and updating the database with information on authorisations that facilitate cumulative impact assessment. Training and guidance provided to regional authorities have also positively affected the authorisation process of plans and projects with possible effects on Natura 2000 sites. Central authorities' continuous efforts to control the quality of the impact assessments undertaken by the 16 regional entities should nevertheless be reinforced.

2025 priority actions

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

Recovery of species

One objective set by the BDS is that, by 2030, there should be no further deterioration in conservation trends or the status of any protected species. The BDS also states that Member States should ensure that at least 30 % of species not currently in favourable conservation status achieve that status or show progress towards doing so (e.g. by exhibiting positive population dynamics or stable or increasing range and habitat size), by 2030. According to the European Environment Agency (EEA), based on reporting required under Article 17 of the Habitats Directive, a quarter of species in the EU were of good conservation status as of 2018 (³⁷).

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.

According to the report submitted by Bulgaria on the conservation status of habitats and species covered by Article 17 of the Habitats Directive for 2013–2018, the share of assessments deeming habitats as in good conservation status in 2018 was 12.23 %. For protected species, the share of assessments marked as good conservation status in 2018 was 38.06 %. As far as birds are concerned, 54 % of the breeding species showed short-term increases or stable population trends (for wintering species, the figure was nearly 30 %).

At the same time, the share of habitats in bad conservation status is 5.32 % and the share of assessments for species marked as bad conservation status is 3.15 %. The main pressures on both habitats and species are agricultural, but also come from unsustainable forestry, the extractive industries and from commercial, residential and infrastructural developments and changes in land use.

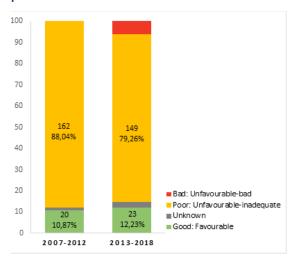
European Union, Luxembourg, 2020, https://www.eea.europa.eu/publications/state-of-nature-in-the-eu-2020.

⁽³⁵⁾ Judgment of 20 June 2024, Commission v Bulgaria, C-85/22, EU:C:2024:535.

⁽³⁶⁾ INFR(2008)4461.

⁽³⁷⁾ EEA, State of Nature in the EU: Results from reporting under the Nature Directives 2013–2018, Publications Office of the

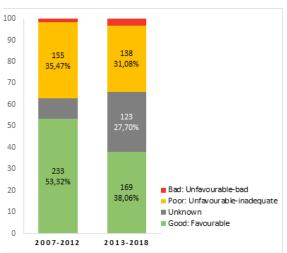
Figure 10: Assessments of conservation status of habitats for the 2007–2012 and 2013–2018 reporting periods³⁸



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-

 ${\color{blue} \underline{the-eu/article-17-national-summary-dashboards/conservation-status-and-trends}.}$

In 2022 the Commission started an infringement case concerning Bulgaria's failure to implement the measures required by the Habitats Directive to avoid bycatch of protected species by fishing vessels.³⁹

2025 priority action

 Reinforce action for habitats and species in unfavourable conservation status, for example through restoration measures, increased connectivity, better policy coordination and integration, and increased funding.

Recovery of ecosystems

Agricultural ecosystems

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

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

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

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

The CAP and national CAP SPs that establish the framework for the transition to a sustainable agriculture are key instruments to facilitate and strengthen the efforts of European farmers to protect biodiversity and the environment at large. The Commission approved Member States' CAP SPs in 2022. CAP is the largest source of funding for the implementation of EU

^{(40) &}lt;a href="https://agriculture.ec.europa.eu/overview-vision-agriculture-food/vision-agriculture-and-food">https://agriculture.ec.europa.eu/overview-vision-agriculture-food/vision-agriculture-and-food en

environment policy and SPs should lead to better protection of soil, water, air quality and biodiversity.

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

The utilised agricultural area in Bulgaria decreased from 5 122 980 ha in 2012 to 5 022 060 ha in 2022 (41).

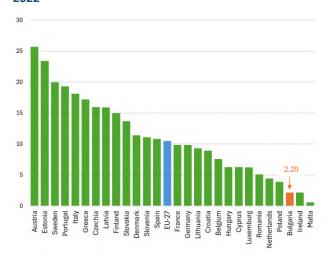
Landscape features are small fragments of non-productive and typically – but not only – semi-natural vegetation present in or adjacent to agricultural land. They provide ecosystem services and support for biodiversity. The indicator 'share of agricultural land covered with landscape features' is the ratio between the area covered by landscape features and the area covered by agricultural land. Based on the Land Use/Cover Area Frame Survey landscape feature estimates, the share of agricultural land covered by non-productive landscape features in Bulgaria is 6.2 %, slightly above the EU average. At the EU level, landscape features cover 5.6 % of agricultural land.

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

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

Organic farming practices are highly beneficial to biodiversity. As shown in Figure 12, it is estimated that 2.20 % of Bulgaria's land area is used for organic farming. This is the third worst result in the EU and far below the EU average of $10.50\,\%\,(^{45})$. Bulgaria is currently contributing very insufficiently 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 (%), 2022⁴⁶



Source: Eurostat, 'Area under organic farming', sdg_02_40, accessed 5 December 2024, https://ec.europa.eu/eurostat/databrowser/view/sdg 02 40/default/table?lang=en.

2025 priority action

- Implement eco-schemes and agri-environmental measures and practices to address the environmental needs of Bulgaria.
- Implement and scale-up the uptake of organic farming practices.

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

⁽⁴¹⁾ Eurostat dataset, 5 December 2024.

⁽⁴²⁾ Regulation (EU) 2024/1468 of the European Parliament and of the Council of 14 May 2024 amending Regulations (EU) 2021/2115 and (EU) 2021/2116 as regards good agricultural and environmental condition standards, schemes for climate, environment and animal welfare, amendment of the CAP strategic plans, review of the CAP strategic plans and exemptions from controls and penalties (OJ L, 2024/1468, 24.5.2024), http://data.europa.eu/eli/reg/2024/1468/oj.

⁽⁴³⁾ Regulation (EU) 2024/1991 of the European Parliament and of the Council of 24 June 2024 on nature restoration and amending Regulation (EU) 2022/869 (OJ L, 2024/1991, 29.7.2024), http://data.europa.eu/eli/reg/2024/1991/oj.

⁽⁴⁴⁾ The three indicators are 'grassland butterfly index', 'stock of organic carbon in cropland mineral soils' and 'share of agricultural land with high-diversity landscape features'.

⁽⁴⁵⁾ This is based on the latest available information from Eurostat, which is currently under review; European Commission, Agriculture biologique au sein de l'union européenne, factsheet, Brussels, 2024, https://agriculture.ec.europa.eu/document/download/c67458ed-ec50-4762-ae68-341763ab93c2 fr?filename=factsheet-organic-farning fr.pdf&prefLang=en.

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 (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 Bulgaria (48).

31 % of Bulgaria's land cover is experiencing loss of soil organic carbon in mineral soils (⁴⁹), representing 84 % of cropland and grassland area. Unsustainable soil erosion by water, wind, tillage and harvest affects 26 % of the national territory, particularly along the northern border of the country.

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.

Bulgaria hosts 18 grassland types listed in Annex I of the Habitats Directive. These include some of the most biodiversity-rich grasslands in Europe, some of which are present only in Bulgaria. In the past, these grasslands have been linked to traditional land stewardship and management, but changes over the past few decades have endangered them, due to ploughing up, overgrazing and abandonment, which leads to under-grazing. Only a small percentage of the protected grassland habitats in Bulgaria are in favourable conservation status. To prevent their continuing loss, it is imperative that the grasslands are appropriately managed.

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 of the Habitats Directive. Drained peatlands under intensive agricultural use constitute only 3 % of the EU's utilised agricultural area. At the same time, they are responsible for 25 % of the GHG emissions from the EU's agricultural sector. Restoring peatlands brings multiple benefits, as peatlands improve water retention and quality, store carbon, reduce GHG emissions and increase biodiversity.

The majority of Bulgarian grassland habitats protected under the Habitats Directive have unfavourable conservation status, major pressures/threats for wetlands/peatlands in four types of bogs, fens and mires habitats, listed in Annex I of the Habitats Directive, are

⁽⁴⁷⁾ 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.

⁽⁴⁸⁾ 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.

⁽⁴⁹⁾ 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.

protected in Bulgaria and none of these is in favourable conservation status. The modification of hydrological conditions, mixed-source pollution, drainage and land reclamation are the main threats to these habitats.

Forest ecosystems

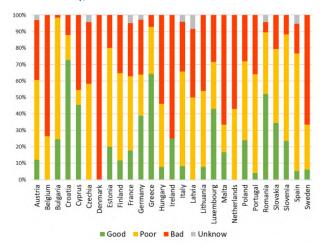
Forests are important carbon sinks and conserving them is vital if the EU is to achieve climate neutrality by 2050. The EU forest strategy for 2030, adopted in July 2021, is a plan of actions to promote the many services that forests provide. Its key objective is to ensure healthy, diverse and resilient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

Several guidelines on forestry management were published in 2023. 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 (50) 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 (⁵¹). The share of forested areas in the EU with a bad conservation status increased from 27 % in 2015 to 31 % in 2018.

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



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

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

According to the Executive Forest Agency database in 2023, the number of forest fires in Bulgaria was 448 and the burnt area is estimated to be 6 388 ha, with 689.6 ha of them burned by crown fires. The average size per forest fire in 2023 increased to 14.25 ha and the main cause (for 59% of fires) was carelessness. The direct losses by forest fires in 2023 are estimated at 170 000 Euro, although the average losses for the last 10 years total about 1 000 000 Euro (52).

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

https://publications.jrc.ec.europa.eu/repository/handle/JR C139704

⁽⁵⁰⁾ 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

⁽⁵¹⁾ EEA, State of Nature in the EU: Results from reporting under the Nature Directives 2013–2018, Publications Office of the European Union, Luxembourg, 2020,

The EU Timber Regulation (EUTR) (53) prohibits the placing on the EU market of illegally harvested timber.

On 29 June 2023, the Regulation on Deforestation-free Products (EUDR) (⁵⁴) entered into force (⁵⁵). 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 Regulation on deforestation-free products repeals the EU Timber Regulation.

In Bulgaria, forests cover 35.9 % of the country's territory (⁵⁶) and more than 75 % of the assessments of the conservation status of forest habitats protected under the Birds and Habitats Directives reveal a bad or poor status (⁵⁷). In total, 704 000 ha in Bulgaria are covered by primary forests (⁵⁸), 99 % of them are in Natura 2000 sites.

On 29 June 2023, the Regulation on Deforestation-free Products (EUDR) (⁵⁹) entered into force. 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. The Commission has proposed giving the parties concerned additional time to prepare. If approved this would make the law applicable on 30 December 2025 for large and medium-sized companies and 30 June 2026 for microand small enterprises.

Marine ecosystems

The Marine Strategy Framework Directive (MSFD) requires Member States to achieve good environmental

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

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

Bulgaria is the only Member State that has not yet reported its programme of measures, which is required under Article 13 of the MSFD and must be updated every six years. The Commission has therefore launched an infringement procedure against Bulgaria for the non-reporting of its updated programme of measures (⁶²).

Bulgaria adopted its updated programme of measures on 31 December 2024. Because it did not report it in time, however, the programme could not be included in the Commission's assessment of Member States' programmes of measures.

- (53) 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.
- (54) 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=1687867231
- (⁵⁵) 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.
- (56) EEA forest information system for Europe, 'Countries FISE country factsheets', forest information system for Europe website, https://forest.eea.europa.eu/countries.
- (57) Commission staff working document Stakeholder consultation and evidence base: Accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – New EU forest strategy for 2030, SWD(2021) 652 final of 16 July 2021, https://eur-lex.europa.eu/legalcontent/NL/TXT/?uri=CELEX:52021SC0652.

- (58) 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/JRC124 671.
- (59) 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=1687867231
- (60) Commission Decision (EU) 2017/848 of 17 May 2017 laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU (OJ L 125, 18.5.2017, p. 43), http://data.europa.eu/eli/dec/2017/848/oj.
- (61) Communication from the Commission of 11 March 2024 Commission notice on the threshold values set under the Marine Strategy Framework Directive 2008/56/EC and Commission Decision (EU) 2017/848 (OJ C, C/2024/2078, 11.3.2024), http://data.europa.eu/eli/C/2024/2078/oj.
- (62) INFR(2022)2172.

2025 priority actions

- Report Bulgaria's programme of measures, as required under Article 13 of the MSFD.
- Report updates on the assessment of the state of Bulgaria's marine waters, its target and its determinations of GES (⁶³), which are expected to include any threshold values for the descriptors in the MSFD that may have been established in cooperation with other Member States at the EU or regional level.

Prevention and management of invasive alien species

Invasive alien species (IAS) are a major cause of biodiversity loss in the EU. Besides inflicting direct and indirect damage on nature and the economy, some IAS also carry and spread infectious diseases, posing a threat to humans and wildlife. Regulation (EU) No 1143/2014 (the IAS Regulation) aims to prevent, minimise and mitigate the adverse impacts of IAS on biodiversity. It focuses action on a list of IAS of EU concern (the 'Union list'), which is regularly updated (⁶⁴).

The (entered into force on 2 August 2022. The fourth update is in preparation.

The IAS Regulation (⁶⁵) currently lists 88 species subject to restrictions on keeping, importing, selling, breeding, growing and releasing into the environment. Member States are required to take measures to (i) prevent the introduction of IAS, (ii) ensure early detection and rapid eradication of IAS and (iii) manage species that are already widespread on their territory. This aligns with target 6 of the GBF to reduce the introduction of IAS by at least 50 % by 2030 and minimise their impact.

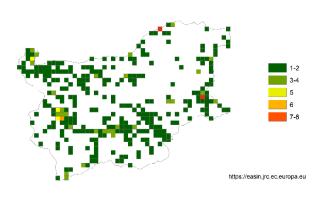
Preventing the introduction and spread of IAS, and managing them, including through eradication and control, can result in a substantial cost saving. Studies estimate that the total cost of IAS in Europe (damages

and management) amounted to EUR 116.61 billion between 1960 and 2020 (⁶⁶). More recent studies have put this cost at USD 28 billion per year in the EU, increasing to USD 148.2 billion by 2040 (⁶⁷), and at USD 423 billion annually at the global level (⁶⁸).

The total number of IAS of Union concern is currently 66, of which 30 are animal species and 36 are plant species; 41 are primarily terrestrial species, 23 are primarily freshwater species, 1 is a brackish water species and 1 is a marine species.

A 2021 report (⁶⁹) on the baseline distribution shows that, of the 66 species on the Union list, 15 had at that time been observed in the environment in Bulgaria. The spread of IAS is shown in Figure 14.

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



The total number of IAS of Union concern in the country is 20. This includes 15 species recorded in the previous EIR (2021) and 5 additions. Of these 11 additions, 1 was already on the Union concern list in 2021, and 4 were

⁽⁶³⁾ In accordance with Article 17 of Directive 2008/56/EC.

⁽⁶⁴⁾ 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://eurlex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02016R1141-20220802&from=EN.

⁽⁵⁵⁾ 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).

⁽⁶⁶⁾ 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.

⁽⁶⁷⁾ 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.

⁽⁶⁸⁾ 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.

⁽⁶⁹⁾ European Commission: Joint Research Centre, Cardoso, A. C., Tsiamis, K. et al., EU Regulation 1143/2014: Assessment of invasive alien species of Union concern distribution – Member States reports versus JRC baselines, Publications Office of the European Union, Luxembourg, 2021.

added later under Commission Implementing Regulation (EU) 2022/1203.

Bulgaria failed to establish and implement a single action plan or a set of action plans fulfilling the requirements specified in Article 13 of the IAS Regulation by 13 July 2019 and to submit it/them to the Commission without delay; it also failed to establish a surveillance system for IAS of Union concern, or include such surveillance in its existing system, monitoring or other procedures to prevent the spread of IAS into or within the EU by 13 January 2018 to comply with Article 14(1) of the IAS Regulation. Therefore, Bulgaria was referred to the Court of Justice of the European Union. The judgment in this case confirmed Bulgaria's failure to fulfil the above obligations (70). In its ruling of 14 November 2024, the Court of Justice found that Bulgaria had failed to comply with its obligations. Bulgaria should now take measures to implement the ruling.

2025 priority action

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

Ecosystem assessment and accounting

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

Similarly, target 14 of the GBF (71) aims to ensure the full integration of biodiversity and its multiple values into policy and planning and, as appropriate, national accounting. This requires effective and coherent biodiversity observation and reporting on ecosystem condition in the EU (72).

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

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

In Bulgaria, sometimes problems arise because of data availability, quality issues and a lack of clear guidance on working with the available data. The largest knowledge gaps concern ecosystem asset accounts, ecosystem accounts and a thematic biodiversity account. Other important issues are the lack of engagement of all stakeholders, insufficient communication and collaboration between state institutions, and insufficient knowledge sharing with the general public and business community. The last issue relates to the establishment of a uniform translation of the related terminology in the appropriate language.

There are no Bulgarian business or biodiversity network members of the EU Business & Biodiversity Platform.

In the 2022 EIR, Bulgaria received priority actions on ensuring better collaboration among all stakeholders to identify and close data gaps, ensuring regional cooperation with Member States sharing the same marine (sub)region to address predominant pressures, and implementing the Commission's recommendations regarding the preparation of the marine strategies, encompassing assessment, the determination of GES and the establishment of environmental targets.

2025 priority action

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

^(7°) Judgment of 14 November 2024, Commission v Bulgaria (Espèces exotiques envahissantes), C-165/23, EU:C:2024:958.

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

⁽⁷²⁾ European Commission: Joint Research Centre and EEA, EU Ecosystem Assessment – Summary for policymakers,

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

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

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 (⁷⁴). These set health-based EU air quality standards (⁷⁵) and stipulate Member States' national emission reduction commitments (⁷⁶) for several air pollutants.

Air quality in Bulgaria continues to give cause for concern in some parts of its territory.

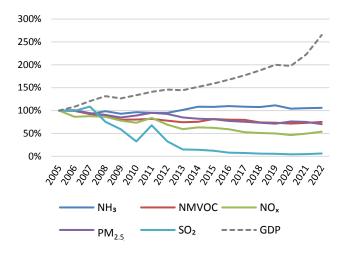
The latest available annual estimates (for 2022) by the EEA (77) for Bulgaria attribute 9 000 deaths each year (or 86 000 years of life lost (YLL)) to fine particulate matter (PM_{2.5}) (78), 1 500 deaths each year (or 14 100 YLL) to nitrogen dioxide (NO₂) (79) and 930 deaths each year (or 9 000 YLL) to ozone (80).

The emissions of several air pollutants have decreased significantly in Bulgaria 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) (81) in 2024, Bulgaria has met its emission reduction commitments for 2020–2029 for air pollutants nitrogen oxides (NO_x), non-

methane volatile organic compounds (NMVOC), sulphur dioxide (SO_2) and $PM_{2.5}$. It has not met them for ammonia (NH_3). According to the projections submitted under Article 10(2) of the NECD in 2023, Bulgaria is projected to meet its emission reduction commitments for 2030 onwards for NO_x , SO_2 , NH_3 and $PM_{2.5}$, but not for NMVOC.

Bulgaria submitted its first national air pollution control programme (NAPCP) to the Commission on 26 September 2019. An update was due four years afterwards. Bulgaria also needs to update its policies and measures to reduce air emissions.

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

⁽⁷⁴⁾ European Commission, 'Air', European Commission website, https://environment.ec.europa.eu/topics/air_en.

⁽⁷⁵⁾ European Commission, 'EU air quality standards', European Commission website, https://environment.ec.europa.eu/topics/air/air-quality/eu-air-quality-standards en.

⁽⁷⁶⁾ European Commission, 'Reducing emissions of air pollutants', European Commission website, https://environment.ec.europa.eu/topics/air/reducing-emissions-air-pollutants en.

⁽⁷⁷⁾ 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.

⁽⁷⁸⁾ 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 μ m or less. $PM_{2.5}$

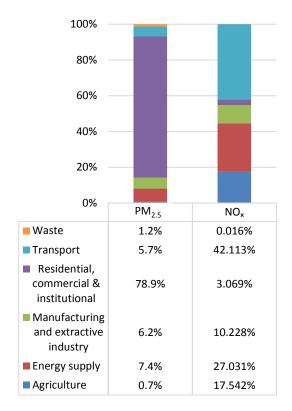
refers to particles with a diameter of 2.5 μm or less. PM is emitted from many human sources, including combustion.

⁽⁷⁹⁾ Nitrogen dioxide (NO₂) here pertains to a group of gases called NO_x, which also comprises nitrogen monoxide (NO). NO_x is emitted during fuel combustion – for example, from industrial facilities and the road transport sector.

⁽⁸⁰⁾ 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.

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



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

In 2023, exceedances above the limit values set by the Ambient Air Quality Directive (AAQD) (82) were registered for NO₂ in one air quality zone (83) and for PM₁₀ in one air quality zone (84) in Bulgaria. Furthermore, for one air quality zone, the target values for ozone concentrations have not been met (85).

Persistent breaches of air quality requirements, which have severe negative effects on health and the environment, are being followed up by the European Commission through infringement procedures covering all Member States concerned, including Bulgaria. The Court of Justice of the European Union has delivered two judgments confirming Bulgaria's non-compliance with Directive 2008/50/EC: in 2017 over exceedances of PM₁₀ limit values (C-488/15) and in 2022 over exceedances of SO₂ limit values (C-730/19). The aim is that appropriate measures are put in place to bring all air quality zones into compliance. Infringement procedures have also been

Bulgaria has not yet ratified the 1998 Protocol on Heavy Metals, as amended on 13 December 2012, and the Persistent Organic Pollutants Protocol under the United Nations Economic Commission for Europe's Air Convention. The two bills for the ratification of the amendments to the protocols were submitted to the 50th National Assembly. Due to the premature end of the 50th National Assembly's activities, the proposed amendments to the protocols were not adopted. Another convention Bulgaria participated in was the Hong Kong Convention on Ship Recycling.

In the 2022 EIR, Bulgaria received three priority actions. The first priority action was to further reduce emissions in the context of the NAPCP. Bulgaria has not made progress on this, as the latest reported data show continued noncompliance with the 2020-2029 emission reduction commitment for NH₃ and also project non-compliance with the emission reduction commitments for NMVOC 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, Bulgaria has made some progress in this regard. However, exceedances of limit values and target values remain for NO₂, PM₁₀ and ozone. Since 2019, downward emission trends have been reported only for NH₃ and PM_{2.5}, and for NH₃ although these are still above 2005 levels. This situation requires further action. The third priority action received by Bulgaria was to ratify the Heavy Metals Protocol and the Persistent Organic Pollutants Protocol. Bulgaria has made some progress in this regard, but still has not ratified those protocols.

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.

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content/EN/TXT/?uri=CELEX%3A32008L0050.

opened for Member States not meeting the emission reduction commitments for 2020–2029, including for Bulgaria for NH $_3$ (86).

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), <a href="https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.eu/legal-contont/FN/TXT/2uri-CFLEXW3A3200810050https://eur-lex.europa.euro

⁽⁸³⁾ Plovdiv.

⁽⁸⁴⁾ Plovdiv.

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

⁽⁸⁶⁾ INFR(2022)2086 (https://ec.europa.eu/commission/presscorner/detail/en/inf 23 __142).

Industrial emissions

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

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

The cornerstone of the policy is the Industrial Emissions Directive (IED), which was revised in 2024 (⁸⁷). The revision improves the directive's contribution to the zero pollution objective. It has a strong focus on innovation, and builds solid links between depollution, decarbonisation and circularity, making it a key regulatory tool to accompany the green transformation of EU industry by 2050.

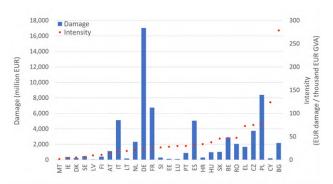
The overview of industrial activities regulated by the IED below is based on data reported to the EU Registry in 2022 (88).

In Bulgaria, there were 612 installations covered by the IED in 2022, a quarter of them (25%) being installations from the waste management sector (including landfills). The other main sectors are the sector involved in the intensive rearing of poultry or pigs (21%), the chemical sector (15%) and the metals sector (13%).

Figure 17 shows the damage to health and environment due to the main industrial air pollutants. As this depends on, among other factors, the size of the industrial sector in each Member State, the figure also shows the ratio between the damage and the industrial activity (expressed in gross value added (GVA)), which gives an indication of the emissions 'intensity'. Bulgaria has the ninth highest damage in the EU; however, in the case of emissions intensity, it comes first, with its intensity being ten times the EU average of EUR 27.5/EUR 1 000 GVA. The main industrial contributors to emissions to air (⁸⁹) are the energy sector for SO₂, NO_x and heavy metals, and the mineral industry for heavy metals.

Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial 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://eurlex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02010L0075-

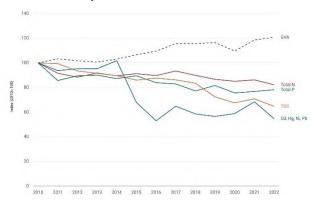
Figure 17: Industrial air pollution damage and intensity per Member State, 2021



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 Bulgaria in particular, Figure 20 shows the industrial emissions of heavy metals to water, taking into account the human toxicity of each metal, as well as emissions intensity, based on the ratio with industrial activity (expressed in GVA). Bulgaria has the 15th highest emissions of heavy metals to water and is in 2nd position

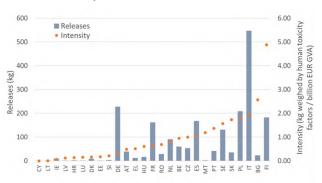
content/EN/TXT/?uri=CELEX%3A02010L0075-20240804&qid=1725983863299.

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

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

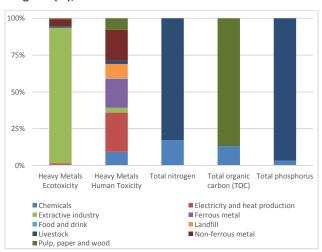
for emissions intensity (above the EU average of 0.864 kg/EUR 1 billion GVA). As shown in Figure 20, the main industrial contributors to emissions to water in Bulgaria are the livestock sector for total phosphorus and total nitrogen, the electricity and heat production sector for heavy metals and the pulp, paper and wood sector for total organic carbon.

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 Bulgaria (%), 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, Bulgaria received a priority action to address the emissions to air from the energy sector. Data are not yet available to assess progress towards this priority action. However, the energy sector remains among the main sources of industrial emissions in Bulgaria.

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:

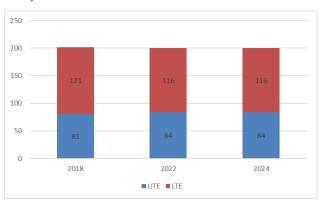
- control major-accident hazards involving dangerous substances, especially chemicals;
- (ii) limit the consequences of such accidents for human health and the environment:
- (iii) continuously improve the prevention of, preparedness for and response to major accidents.

The cornerstone of the policy is Directive 2012/18/EU (the Seveso III Directive) (90).

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 (⁹¹) and the report by Bulgaria on the implementation of the Seveso III Directive for 2019–2022 (⁹²).

In 2024, of the 200 Seveso establishments in Bulgaria, 116 were categorised as lower-tier establishments and 84 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 Bulgaria, 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/lanquage-

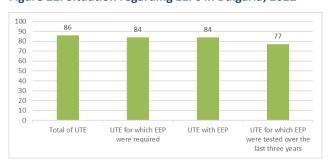
Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, amending and subsequently repealing Council Directive 96/82/EC (OJ L 197, 24.7.2012, p. 1), https://eur-lex.europa.eu/eli/dir/2012/18/oj.

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 Bulgaria, in 2022, an EEP was required for 84 UTEs, out of 84 in total at the time. In 2022, 84 UTEs had an EEP and 77 of these EEPs had been tested over the previous three years. The summary is shown in Figure 22.

Figure 22: Situation regarding EEPs in Bulgaria, 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/publicationdetail/-/publication/9bd73087-e9b8-11ef-b5e9-01aa75ed71a1/language-en.

The following types of information are permanently available for all of Seveso establishments in Bulgaria: (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 on the appropriate behaviour in the event of a major accident; and (iii) the date of the last site visit.

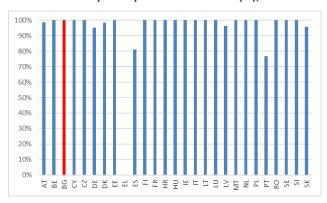
The shares of UTEs for which information on safety measures and requisite behaviours was actively made available to the public in 2022 in the EU-27 are shown in

^{(91) &}lt;a href="https://espirs.irc.ec.europa.eu/en/espirs/content">https://espirs.irc.ec.europa.eu/en/espirs/content; data extracted in September 2024.

⁽⁹²⁾ As provided for by Article 21(2) of the Seveso III Directive.

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



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

In 2022, Bulgaria received a priority action to strengthen control and enforcement to ensure compliance with the Seveso III Directive rules, especially those on EEPs. Data reported on the implementation of the directive for 2019–2022 show significant progress in the numbers of EEPs established and tested for UTEs in Bulgaria.

Mercury Regulation

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

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

In 2019, 21% of the dental treatments were still using dental amalgam, which represented a challenge for Bulgaria to phase out its use by 1 January 2025. However, measures should have been put in place 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. Bulgaria 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 (93) 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 (94).

In Bulgaria, environmental noise is estimated to cause at least around 520 cases of ischaemic heart disease

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/2uri=CELEX%3A32002L0049.

⁽⁹⁴⁾ WHO, Environmental Noise Guidelines for the European Region, Copenhagen, 2018, https://www.who.int/europe/publications/i/item/978928905356
3.

annually (95) and some 45 600 people to suffer from disturbed sleep (96).

Based on the latest set of information analysed, Bulgaria has not completed its noise mapping of agglomerations.

Since Bulgaria has 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 Bulgaria.

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

Bulgaria received no priority action in the 2022 EIR.

2025 priority actions

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

Water quality and management

EU legislation and policy requires that the impact of pressures on transitional waters, coastal waters and 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 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 (97) is the cornerstone of EU water policy in the 21st century (98). The Water Framework Directive and other water-related directives (99) form the basis of sustainable and integrated water management in the EU. They aim to achieve a high level of protection of water resources, prevention of further deterioration and restoration to good status. These objectives are very important for the EU's competitiveness, strategic autonomy and security, yet have become even more challenging in the face of climate change affecting our precious water resources.

The Water Framework Directive (WFD) establishes a procedural framework for reaching good surface water ecological and chemical status and good groundwater quantitative and chemical status. This implies monitoring and classification of all waterbodies, assessment of pressures and impacts and identification of the most costeffective 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. The analysis of the last RBMPs of Bulgaria has identified nutrients from agriculture as an important pressure for groundwater / surface waters that is affecting these waters' good status and as one of the main factors in not meeting the WFD objectives.

- (85) 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
- (96) More information on the adverse health effects of noise pollution is available at:
 - https://www.eea.europa.eu/themes/human/noise/noise-2
- (97) https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX:32000L0060.
- (98) https://environment.ec.europa.eu/topics/water-en.
- These include the Groundwater Directive (https://eurlex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32006L0118), the Environmental Quality Standards Directive (https://eurlex.europa.eu/eli/dir/2008/105/oj), the Floods (https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32007L0060), the Bathing Water Directive (https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=celex%3A32006L0007), Wastewater Treatment Directive (https://eurlex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31991L0271), Drinking Directive new Water (https://eurlex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32020L2184), the Nitrates (https://eur-lex.europa.eu/legalcontent/EN/ALL/?uri=celex%3A31991L0676), the **MSFD** (https://eur-lex.europa.eu/legalcontent/en/TXT/?uri=CELEX%3A32008L0056) and the IFD (https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A32010L0075).

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).

Bulgaria did not submit the third RBMPs and second FRMPs by March 2022, as required under the Water Framework Directive and the Floods Directive respectively. The Commission opened infringement proceedings for late reporting. Bulgaria finally reported its second FRMPs in January 2024 and its third RBMPs in January 2025. As a result of this late/incomplete reporting, the Commission has not been in a position to assess the plans and include such assessment in its report to the European Parliament and to the Council (100).

As a consequence, the EIR report cannot be updated for Bulgaria and reference is made to the 2022 EIR for the latest state of play (101).

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 (102), (ii) a methodology for measuring microplastics in drinking water (103) and (iii) an EU system for testing and approving materials that will be allowed to be in contact with drinking water (104). Member States will have to take these various Commission acts into account when implementing the recast directive.

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

The quality of drinking water (supplied by large water suppliers) in Bulgaria does not give rise to concern (105). From January 2026, the European quality standards for per- and polyfluoroalkyl substances in drinking water will apply, ensuring harmonised Member States' reporting of per- and polyfluoroalkyl substances monitoring data in the future.

2025 priority action

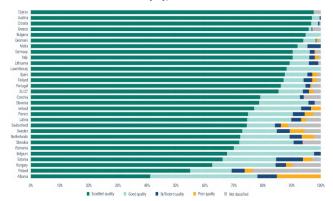
 Take action to ensure full compliance with the Drinking Water Directive.

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 24 shows that in 2023, out of the 96 Bulgarian bathing waters, 91 (94.8 %) were of excellent quality and 5 bathing waters (5.2 %) were of good quality. No bathing waters were found to be of sufficient or poor quality. Detailed information on Bulgarian bathing waters is available from a national portal (106) and via an interactive map viewer of the EEA.

Figure 24: Bathing water quality per Member State and Albania and Switzerland (%), 2023 season



^{(100) &}lt;a href="https://environment.ec.europa.eu/publications/implementing-decision-drinking-water-directive-watch-list_en">https://environment.ec.europa.eu/publications/implementing-decision-drinking-water-directive-watch-list_en.

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).

- (105) In summary, the compliance for all parameter groups in Bulgaria was at least 99.35 % in 2017, 99.26 % in 2018 and 99.44 % in 2019.
- (106) Ministry of Health, 'Registries Bathing waters', Ministry of Health website, https://www.mh.government.bg/bg/administrativni-uslugi/registri/vodi-za-kupane.

^{(101) &}lt;a href="https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review en#country-reports">https://environment.ec.europa.eu/law-and-governance/environmental-implementation-review en#country-reports.

^{(102) &}lt;a href="https://environment.ec.europa.eu/publications/implementing-decision-drinking-water-directive-watch-list">https://environment.ec.europa.eu/publications/implementing-decision-drinking-water-directive-watch-list en.

⁽¹⁰³⁾ 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.

⁽¹⁰⁴⁾ 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,

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 (107) 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 (108), dating to 2022, 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.

2025 priority action

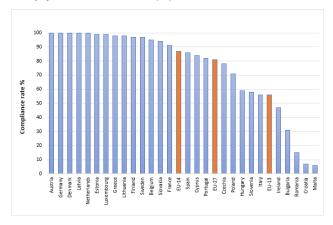
 Tackle nutrient pollution, especially nitrates from agriculture, through the implementation of the Nitrates Directive.

Urban Wastewater Treatment Directive

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

Overall, in Bulgaria, the compliance rate was 31 % in 2020. In total, 210 agglomerations, generating 4 560 660 population equivalent (p.e.) of urban waste water, did not comply with the requirements of the directive.

Figure 25: Proportion of urban waste water that fully comply with the UWWTD (%), 2020



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

In November 2024, the Commission decided to refer Bulgaria to the Court of Justice of the European Union for non-compliance with the obligations of the UWWTD in 31 agglomerations with more than 10 000 109. It is essential that Bulgaria takes the necessary measures to comply with the requirements of the directive.

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

2025 priority actions

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

Chemicals

The EU seeks to ensure that chemicals are produced and used in a way that minimises any significant adverse effects on human health and the environment. In October 2020, the Commission published its chemicals strategy for

^{(107) &}lt;a href="https://environment.ec.europa.eu/topics/water/nitrates_en.">https://environment.ec.europa.eu/topics/water/nitrates_en.

^{(108) &}lt;a href="https://environment.ec.europa.eu/topics/water/nitrates">https://environment.ec.europa.eu/topics/water/nitrates en.

⁽¹⁰⁹⁾ INFR(2017)2082.

sustainability towards a toxic-free environment (110), 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 (111) 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 (112) on the implementation and enforcement these regulations (113). 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 (¹¹⁴) 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 (¹¹⁵).

In 2023, new hazard classes were added to the CLP Regulation, and the revision of the regulation was tabled (published on 20 November 2024) (116). 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 (117). 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.

Responsibility for checking compliance with the REACH Regulation in Bulgaria (118) lies with:

- 15 regional inspectorates of environment and water;
- Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Chemicals strategy for sustainability: Towards a toxic-free environment, COM(2020) 667 final of 14 October 2020, https://eurlex.europa.eu/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 mistures amending and packaging of substances and mistures are substances.

Communication from the Commission to the European

(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.

- 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/legalcontent/en/TXT/?uri=CELEX%3A32006R1907; and Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1), https://eurlex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A02008R1272-20221217.
- (112) 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.
- 113) In line with Article 117(1) of the REACH Regulation and Article 46(2) of the CLP Regulation.
- (114) 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/.
- (115) 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.
- (116) 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 (Text with EEA relevance), OJ L, 2024/2865, 20.11.2024, p.1 (Regulation - EU - 2024/2865 - EN - EUR-Lex).
- (117) 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.
- (118) 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. 68, https://circabc.europa.eu/ui/group/8ee3c69a-bccb-4f22-89ca-277e35de7c63/library/a4abce8c-8425-455f-b7e6-0ead917bde6b/details.

- 28 regional health inspectorates;
- the executive agency General Labour Inspectorate.

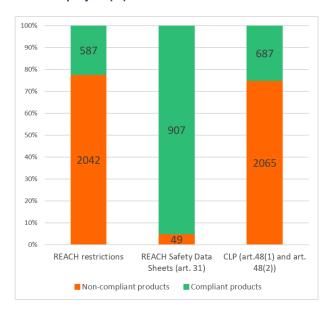
Bulgaria has fully implemented enforcement strategies for both the REACH and CLP Regulation (119).

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 national-specific data on enforcement since 2022.

In Bulgaria, human and financial resources allocated to REACH and CLP Regulation enforcement are limited (120). There were 2 577 REACH checks in 2019 and 266 CLP checks. Almost all of those carried out were proactive (inspections), rather than reactive/non-routine checks (i.e. investigations in response to complaints, accidents and referrals) (121).

In 2020, Bulgaria participated in an EU coordinated enforcement project on products sold online, called the REACH-EN-FORCE (REF)-8 project (122). The report was adopted in November 2021, so it could not be taken into account in the previous EIR.

Figure 26: Compliance of imported products – results of the REF-8 project (%)



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

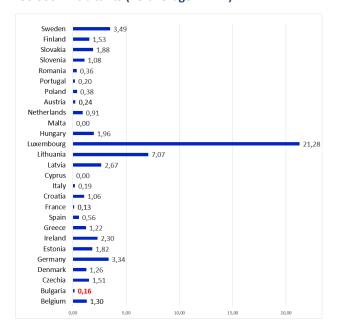
⁽¹¹⁹⁾ European Commission, Technical assistance to review the existing Member States reporting questionnaire under Articles 117(1) of REACH and 46(2) of CLP – Final report, Publications Office of the European Union, Luxembourg, 2020, p. 76, https://circabc.europa.eu/ui/group/8ee3c69a-bccb-4f22-89ca-277e35de7c63/library/a4abce8c-8425-455f-b7e6-0ead917bde6b/detail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

⁽¹²⁰⁾ European 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.

⁽¹²¹⁾ 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, pp. 87–88, https://circabc.europa.eu/ui/group/8ee3c69a-bccb-4f22-89ca-277e35de7c63/library/a4abce8c-8425-455f-b7e6-0ead917bde6b/details.

⁽¹²²⁾ 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.

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



Bulgaria participated to a small extent in the REF-8 coordinated enforcement project. Online sales have been

proven to correspond consistently to higher noncompliance rates in checks performed across the EU, in particular when related to imported products.

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

2025 priority 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 fastestwarming continent. The frequency and severity of extreme climate events are also increasing. Against this backdrop, the EU has demonstrated its determination to implement the European Green Deal and to become climate neutral and resilient by 2050, ensuring sustainable competitiveness and supporting EU industry in the netzero transition. The European Climate Law is the EU's response to the need for action. It sets the objective of achieving climate neutrality by 2050 and a midterm target of a reduction in GHG emissions of at least 55 % by 2030, and outlines the adaptation efforts necessary to adjust to climate change's present and future impacts. Almost all the 'Fit for 55' proposals set out in the European Green Deal have been agreed in law, and the European Commission recommended a new intermediate climate target of a 90 % reduction in emissions by 2040. In 2024, the Member States submitted updated national energy and climate plans for 2021–2030, reflecting the increased ambition of the revised EU legislation. In 2024, the European Commission also released, jointly with the EEA, the first-ever European climate risk assessment.

Over the last three decades, since 1990, the EU has achieved steady decreases in its emissions, reaching a running total in 2022 of -32.5% (123). 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 Bulgaria decreased by 40%, 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

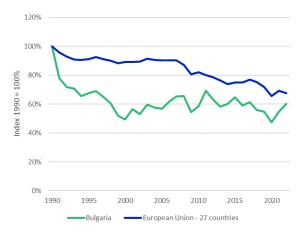
Forestry (124). The package has been fully adopted, and the Member States have been implementing the legislation.

The key strategic document at country level is the National Energy and Climate Plan (NECP) (125). Bulgaria submitted its final plan in January 2025 after the deadline set by the regulation. The European Commission assessed the final plan and the extent to which Bulgaria has followed the recommendations for the draft version. The findings from the assessment are:

- Emissions under the Effort Sharing Regulation will decrease by 11% in 2030 compared to 2005, and Bulgaria will overachieve its target by 1 percentage point.
- The latest projections show a gap to the LULUCF target, meaning that current levels of removals have been insufficient.
- Bulgaria is in line with its target for the share of renewable energy.
- There is still gaps in target for the final energy consumption that must be closed. Projections for primary energy consumption are in line with the target.

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

Figure 28: Total GHG emissions (excluding international aviation) (%), 1990–2022



⁽¹²³⁾ EU net domestic emissions, including the land use, land-use change and forestry (LULUCF) sector and excluding international aviation.

⁽¹²⁴⁾ 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-greendeal/fit-55-delivering-proposals_en.

⁽¹²⁵⁾ More information about NECP is on the dedicated website https://energy.ec.europa.eu/topics/energy-strategy/nationalenergy-and-climate-plans-necps en

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 (126) 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 42% from 2005 to 2023.

About 72 % of the GHG emissions from Bulgaria's ETS installations came from power generation, significantly more than the EU average of 57 %. Of the total emissions from all industry sectors, 31 % came from the chemical industry, 31 % each from refineries and from cement and lime production, 21 % from other industries, and 8 % from the metals industry. Since 2019, the power sector's emissions have declined by 35 %. The industry sectors' emissions have declined by slightly less, 33 %. Since 2013, GHG emissions have declined by 48 % in power generation and by 10 % in the industry sectors. GHG emissions in both the power sector and the industry sectors showed both increases and decreases in that decade.

From 2027, a new emissions trading system, called ETS2, for buildings, road transport and additional sectors, (mainly industry not covered by the current ETS) will become fully operational (127). 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. Bulgaria did not communicate full transposition into national law by this deadline. The Commission therefore opened an infringement procedure against Bulgaria on 25 July 2024, for failing to fully transpose the provisions into national law.

Bulgaria 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 Bulgaria on 25 January 2024 for failing to fully

transpose previous revisions of ETS directive (128) into national law. Bulgaria 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.

Effort sharing

The Effort Sharing Regulation (ESR) (129) covers GHG emissions from domestic transport (excluding CO₂ emissions from aviation), buildings, agriculture, small industry and waste. Emissions from these sectors account for around 60 % of the EU's domestic emissions. The regulation sets the EU-wide target to reduce emissions from the effort sharing sectors by 40 % by 2030 compared to 2005 levels. This overall target for the EU translates to binding national emission reduction targets for each Member State. Bulgaria's target is -10%.

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 Bulgaria is on track to achieve its 2030 ESR target.

Projections show a total decrease of emissions by 11.1 %. That means that reduction is 1.1 percentage points above the 2030 target.

The largest contributor is the domestic transport sector, which accounted for 41 % of all effort sharing emissions in 2022 and its emissions increased by 27 % from 2005 level. In Bulgaria, much remains to be done in the sector, especially for passenger transport. Only 0.1 % of car fleet were battery electric vehicles in 2023 (EU average is 1.2 %). On the other hand, Bulgaria has about 1 400 publicly accessible charging points, or one for every three e-vehicles (above the EU average of 1:10). Share of public transportation is below the EU average, especially share of railways (2 %) is considerably lower than the average (6 %). At 24 % of inland freight transport, Bulgaria has one of the highest shares of freight transport by inland waterway in the EU, also Bulgaria's share of rail is above the EU average. 74% of railways are electrified, a relatively high share compared to EU average of 56 %.

The buildings sector is a significant concern for Bulgaria as well. Between 2005 and 2022, emissions from buildings

⁽¹²⁶⁾ Flights between the EU Member States including departing flights to Norway, Iceland, Switzerland and the United Kingdom.

⁽¹²⁷⁾ Directive (EU) 2023/959 (https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.L .2023.130.01.0134.01.ENG)

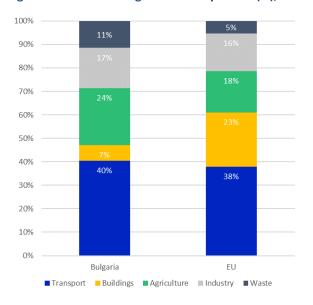
Directive - 2023/959 - EN - EUR-Lex and Directive - 2023/958 - EN - EUR-Lex

²⁹⁾ Regulation (EU) 2018/842 (https://eur-lex.europa.eu/eli/reg/2018/842).

fell by 17.6 %, well below the EU average of 27.6 %. Bulgaria missed the energy savings required by 2020 and needs to step up its efforts in the sector to achieve its 2030 energy consumption target for buildings.

Emissions from agriculture increased by 20 % compared to 2005. The country has one of the lowest shares of organic farming in the EU, at 2.3 % of total utilised agricultural area in 2020 against the EU average of 9.1 % and the EU target of 25 % by 2030. The share of organic farming has fallen since 2016 when it was 3.2 %. Bulgaria's livestock density index barely changed between 2010 and 2020 and is well below the EU average. Looking at the trends to 2030, with current measures in place as well as with additional measures, Bulgaria will increase agriculture emissions by 38 % from 2005.

Figure 29: 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.

Forests play the main role in Bulgaria in removing carbon through land use. The main contributing areas are forest management and removals by afforestation/reforestation. Total net removals have gone from -16.3 Mt of CO2 equivalent in 2005 to -9.5 in 2022, representing a long-term deterioration of the situation, albeit net removals have remained somewhat stable since 2016.

The law on Biodiversity was amended at the end of 2022. It entered into force in 2023 to establish a new approach for management of the Natura 2000 network. Bulgaria has also put forward the commitment to restore 150 ha of habitats through nature-based solutions.

Bulgaria's target for 2030 is to enhance land removals by an additional -1.2 Mt of CO_2 equivalent compared to the yearly average of the period 2016–2018. The latest projections show a gap to the 2030 target of 1.4 Mt of CO_2 equivalent, meaning that current levels of removals have been insufficient. Therefore, Bulgaria 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.

Bulgaria has one out of three regions identified as hotspots of climate risks most affected by climate change – low-lying coastal regions (130).

Bulgaria is vulnerable to extreme climate events such as heatwaves and heavy rainfall. From 1980–2019, only 5 % of losses caused by climate-related events were insured. Insurance coverage is below 50 % for all climate-related risks. Bulgaria's vulnerability to floods is at medium levels, due to more intense and frequent extreme weather events. Bulgaria lacks coordination among authorities and has not yet aligned its monitoring and modelling to current measures and challenges. It has limited administrative capacity for action on adaptation, it has made little progress on international networks.

Bulgaria adopted its national adaptation strategy and plan in 2019 and has its national adaptation strategy. There are regional adaptation plans and Bulgaria lacks subnational planning and reporting to align planning tools and help coordinate mechanisms to ensure that subnational policies are regularly reviewed and updated.

European Commission identified four priority actions in the 2022 edition (131) of the review.

Bulgaria is making progress towards deployment of renewables. Total renewable energy capacity in 2023 stood at 6 215 MW (23 % increase compared to 2022). Bulgaria also committed to increase renewables to 34.1 % by 2030 in their draft updated NECP. This trend had not impacted the 2022 total share of renewables where the share of renewables decreased by 4 percentage points

⁽¹³⁰⁾ European Climate Risk Assessment (EUCRA). 2024. Available at European Climate Risk Assessment (europa.eu)

^{(131) &}lt;u>2022 edition</u>

compared to 2020 level, but indications show higher RES production in 2023 compared to 2022.

Investment to boost renewable energy are being launched. A national scheme to support investments in renewable energy and storage with at least 300 MW of storage and 1 140 MW of renewable energy production has been put forward. BG also put forward the revision of its Renewable Energy Act which assists in the acceleration of renewables. Still administrative burden prevails in the areas permitting for installing renewable energy sources.

Progress on enhancing the renovation of building stock is limited. Bulgaria needs to accelerate building renovation in order to incentivise energy efficiency and address energy poverty. The Recovery and resilience plan contains measures, but its implementation is delayed.

On the implementation of additional measures and changes in land management practices, Bulgaria does not have a clear pathway how they will achieve its LULUCF target and what specific policies and measures will

contribute to this. They have prepared a national strategy on the development of the forest sector that is pending ministerial approval.

Since 2022, Bulgaria has adopted three Bulgaria's Territorial Just Transition Plans (TJTPs) for the regions Stara Zagora, Kyustendil and Pernik that face the biggest socio-economic challenges in phasing out coal and reducing CO2 emissions. Progress on the implementation of these plans is limited.

2025 priority actions

 Implement all polices and measures that are needed to achieve targets laid down in the Effort Sharing Regulation (ESR) and the Land Use and Land-Use Change and Forestry (LULUCF) Regulation. More detailed priority actions are set out in the assessment of the final National Energy and Climate Plan (NECP) (132).

⁽¹³²⁾ National energy and climate plans

Part II: Enabling framework – implementation tools

5. Financing

The EU budget supports climate investment in Bulgaria with significant amounts in 2021–2027, with revenues from the ETS also feeding into the national budget. During 2020–2022, Bulgaria's revenues from auctioning reached EUR 2.4 billion in total, with 100 % of it spent on climate and energy.

In addition, the annual investment needed to meet its environmental objectives in the areas of pollution prevention and control, the circular economy and waste, water protection and management, and biodiversity and ecosystems is estimated to be EUR 4.1 billion per year in Bulgaria.

These four environmental areas currently receive total funding of around EUR 1.6 billion per year; thus, there is a gap of EUR 2.4 billion per year.

The environmental investment gap is predominantly linked to biodiversity and ecosystems (EUR 1.4 billion per year), with around EUR 0.4 billion in water and in pollution prevention and control (each).

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 (133).

In Bulgaria, the EU cohesion policy (considering the EU contribution amount) provides EUR 4 billion for climate

action in 2021–2027 (with 45 % of this via the ERDF), with a further EUR 41 million from the European Maritime, Fisheries and Aquaculture Fund (134).

The RRF contributes to climate finance in Bulgaria with EUR 3.24 billion up to 2026, representing 57% of the recovery and resilience plan (RRP) (135).

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 424 million was assigned to Bulgaria in the reference period (136).

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 449 million in 2020, EUR 833 million in 2021 and EUR 1 094 million in 2022 in Bulgaria, totalling EUR 2.4 billion in the three-year period, representing 100 % of the revenues from auctioning, as all auction revenues are earmarked for climate and energy purposes in Bulgaria. Unspent revenues are carried over to later years; therefore, in some years spending is higher than revenues (137).

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 (138).

It should be noted that investment in climate action also supports the environment and, therefore, the environmental investments described in the following sections cannot be regarded as entirely additional to climate investment (139).

⁽¹³³⁾ 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.

⁽¹³⁴⁾ See the Cohesion Open Data Platform (https://cohesiondata.ec.europa.eu/).

⁽¹³⁵⁾ EU Commission datasets and the Recovery and Resilience Scoreboard (https://ec.europa.eu/economy finance/recovery-and-resilience-scoreboard/index.html).

⁽¹³⁶⁾ A list of financed projects is provided by the EIB (https://www.eib.org/en/projects/loans/index.htm).

⁽¹³⁷⁾ 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.

⁽¹³⁸⁾ European Commission: Directorate-General for Climate Action, Progress Report 2023 – Climate action, Publications Office of the European Union, Luxembourg, 2023, https://climate.ec.europa.eu/news-your-voice/news/climate-action-progress-report-2023-2023-10-24 en.

⁽¹³⁹⁾ NB: Indirect investments (from climate and other policies) in support of the environment are accounted for via the tracking.

Environmental financing and investments

This section describes Bulgaria's investment needs, current financing and gaps as they relate to the four environmental objectives beyond climate objectives, namely tackling pollution, the circular economy and waste, water protection and management, and biodiversity and ecosystems (140).

The environment overall

Investment needs

The overall environmental investment needs to be sufficient to enable Bulgaria's to meet its objectives in the areas of pollution prevention and control, the circular economy and waste, water protection and management, and biodiversity and ecosystems. The required investment is estimated to be EUR 4.1 billion per year (in 2022 prices).

A significant part of the estimated requirement, around EUR 1.8 billion per year, can be attributed to biodiversity and ecosystems, followed by pollution prevention and control (EUR 0.9 billion per year) and circular economy and water (around EUR 0.7 billion per year for each of the two, in 2022 prices).

Current investments

To implement the environmental investments needed, the available financing is estimated to currently reach an annual EUR 1.6 billion in Bulgaria from EU and national sources combined (in 2022 prices).

Total environmental funding from the multiannual financial framework (MFF) is estimated to reach around EUR 2.1 billion for Bulgaria in total, during 2021–2027 (or EUR 744 million per year).

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

Instrument	Allocations	
Cohesion policy	3 340 (a)	
ERDF	2 103.3	
Cohesion Fund	840.1	
Just Transition Fund	396.6	
САР	1 433.1 (b)	
European Agricultural Guarantee Fund	1 054.8	
European Agricultural Fund for Rural	378.3	
Development		
European Maritime, Fisheries and Aquaculture Fund	27.3	

⁽¹⁴⁰⁾ Research, development and innovation is accounted for under each environmental objective. The financing needs, baselines, 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.

Other MFF sources	405.9 (°)
RRF (d) (2021–2026)	1 546.2

(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/hgyj-gyin/about data.

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

- (°) 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.

Bulgaria, 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) (1997). Horizon Europe (EUR 95.5 billion) (1997) the Connecting Europe

⁽¹⁴¹⁾ European Commission, Horizon Europe, https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe_en.

Faci¹⁴² (EUR 33.7 billion) (and funds that can be ¹⁴³the InvestEU programme ()

Bulgaria's RRP supports climate objectives through funding of EUR 3.24 billion (56.9 % of the total), with an additional EUR 0.16 billion (2.9 % of total) for the environment.

The EIB provided around EUR 153 million in environment-related financial contributions to Bulgaria from 2021 to mid 2024, linked to 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 Bulgaria, the total national environmental protection expenditure was EUR 1.2 billion in 2020 and EUR 1.4 billion in 2021, representing 2 % of GDP in both years.

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 Bulgaria, the national environmental protection investment reached EUR 337 million in 2020, rising to EUR 360 million in 2021, representing around 0.5 % of GDP.

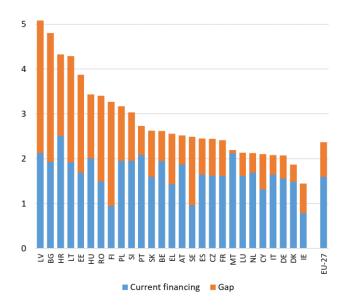
Splitting by institutional sector, 38.5 % of Bulgaria's national environmental protection investment (capital expenditure) comes from the general government budget, with 6.1 % coming from specialist private-sector producers (of environmental protection services, such as waste and water companies) and 55.4 % 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 (144).

Bulgaria's total financing for environmental investment reaches an estimated EUR 1.6 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 56.6 %, with around 43 % national financing (both public and private). The total public financing (EU funds plus national public) represents around 73 % 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 Bulgaria, representing around 2.87 % of the national GDP, being higher than the EU average (0.77 %).

Figure 30: Environmental financing, needs and gaps per Member State (% of GDP)



Source: Analysis of Directorate-General for Environment.

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

⁽¹⁴²⁾ Connecting Europe Facility (Transport) Regulation (Regulation (EU) 2021/1153).

⁽¹⁴³⁾ 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.

⁽¹⁴⁴⁾ Eurostat, 'Environmental protection expenditure accounts', env_ac_epea.

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

Environmental	Investment gap per year		
objective	Million EUR (2022 prices)	% of total	% of GDP
Pollution prevention and control	406	16.8	0.48
Circular economy and waste	147	6.1	0.17
Water management and water industries	439	18.1	0.52
Biodiversity and ecosystems	1 432	59.1	1.69
Total	2 425	100.0	2.87

Source: Directorate-General for Environment analysis. Rounding used.

Pollution prevention and control

Investment needs

In pollution prevention and control, Bulgaria's investment needs are estimated to reach EUR 0.9 billion per year (including baseline investments) in 2021–2027. Most of this, almost EUR 0.8 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 128 million per year, most of which is delivered by the (same) sustainable energy and transport investments that also benefit clean air (145). Industrial site remediation requires an estimated EUR 16 million per year. Protection from radiation (nuclear site decommissioning, nuclear waste) costs around EUR 105 million per year.

Microplastics pollution and the chemicals strategy require around EUR 10 million per year (each) (146).

Current investments

The current investment levels supporting pollution prevention and control reach an estimated EUR 503 million per year in Bulgaria in 2021–2027. Most of the financing concerns clean air (EUR 431 million per year). Protection from environmental noise receives around EUR 140 million per year, with a further EUR 44 million for site remediation (147).

In Bulgaria, the EU MFF provides an estimated 35.7 % of the clean air financing (mostly via cohesion policy), with further 37.1 % from the RRF, adding up to 72.8 % of the total. EIB financing contributes 4.1 % and national sources reach 23.1 % (148).

The gap

To meet its environmental objectives concerning pollution prevention and control (towards zero pollution), Bulgaria needs to provide an additional EUR 406 million per year (0.48 % of GDP), mostly related to clean air. The adequate implementation of the NECP with the investments included for sustainable energy and transport would largely deliver this, while in many Member States additional measures and investments may be required to comply with the ammonia reduction requirements.

According to the latest (2023) NAPCP review report (149), Bulgaria did not comply with ammonia reduction requirements in 2020 and 2021, 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.

^{(145) 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).

⁽¹⁴⁶⁾ European Commission, Third Clean Air Outlook, Brussels, 2022, https://environment.ec.europa.eu/topics/air/clean-airoutlook 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).

⁽¹⁴⁷⁾ 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
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-

⁽¹⁴⁹⁾ 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.

Circular economy and waste

Investment needs

Bulgaria's investment needs in circular economy and waste reach EUR 677 million per year (including baseline investments). Most of this, around EUR 529 million per year, relates to circular economy measures in the mobility, food and built environment systems, with a further EUR 149 million necessary for waste management (municipal and packaging waste), covering waste collection, biowaste treatment, recycling reprocessors, waste-sorting facilities, and digitalisation of the waste registry. The amount for waste excludes the investments needed for the uptake of circularity and waste prevention across the economy (150).

Current investments

Circular economy investments across the economy reach around EUR 404 million per year in Bulgaria in 2021-2027, with a further EUR 128 million provided for waste management that does not constitute circular economy.

Around 12.6 % of the combined financing for circularity and waste comes from the EU MFF, with a further 2.6 % from the RRF, adding up to 15.1 % of the total. The share of national sources is the largest, reaching 85 % of the total financing (151).

The gap

To meet its environmental objectives concerning the circular economy and waste, Bulgaria needs to increase circular economy investments by an estimated EUR 126 million per year, with an additional EUR 21 million concerning waste management action, not belonging to circular economy. Combined, this amounts to EUR 147 million per year, representing 0.17 % of Bulgaria GDP.

Of the circular economy gap, EUR 33 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 93 million constitutes further investment need to unlock Bulgaria's circular economy potential.

Water protection and management

Investment needs

The annual water investment needs reach an estimated EUR 0.7 billion (in 2022 prices) in Bulgaria. 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 356 million, relates to the management of waste water (also including additional costs associated with the revised UWWTD). A further EUR 118 million is necessary for drinking-water-related investments and around EUR 230 million for the protection and management of water (152).

Current investments

Water investments in Bulgaria are estimated to be around EUR 267 million per year (in 2022 prices) in 2021–2027. Of this, EUR 117 million supports wastewater management, EUR 87 million drinking water and around EUR 63 million the other aspects of the Water Framework Directive (water management and protection).

Around half of the total financing (49.8 %) is provided by the EU MFF (mostly through cohesion policy), with a further 1.8 % from the RRF, reaching 51.6 % combined. The smaller half of the water financing is provided from national sources in Bulgaria (153).

The gap

To meet the various environmental targets under the Water Framework Directive and the Floods Directive, Bulgaria's water investment gap reaches EUR 439 million per year (0.52 % of GDP), with EUR 239 million per year for wastewater measures. Drinking water measures require an additional EUR 31 million per year and the other aspects of the Water Framework Directive around EUR 167 million per year over the existing levels of financing.

⁽¹⁵⁰⁾ See Systemiq and Ellen MacArthur Foundation, Achieving 'Growth Within', 2017; and European Commission: Directorate-General for Environment, Study on investment needs in the waste sector and on the financing of municipal waste management in Member States, Publications Office of the European Union, Luxembourg, 2019, https://op.europa.eu/en/publication-detail/-/publication/4d5f8355-bcad-11e9-9d01-01aa75ed71a1.

⁽¹⁵¹⁾ 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).

⁽¹⁵²⁾ 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-eumember-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.

⁽¹⁵³⁾ Water investment levels are estimated through tracking EU funds, EIB projects and national expenditure (EPEA accounts, Eurostat).

Biodiversity and ecosystems

Investment needs

The investment needs for biodiversity and ecosystems are estimated to be EUR 1.8 billion per year (in 2022 prices) in Bulgaria in 2021–2027. This includes the following financing needs:

- Bulgaria's prioritised action framework (¹⁵⁴), concerning the Natura 2000 areas: EUR 102 million per year, mostly running costs;
- additional BDS costs (¹⁵⁵): EUR 1.2 billion per year on top of the framework;
- sustainable soil management costs (156): EUR 0.5 billion per year.

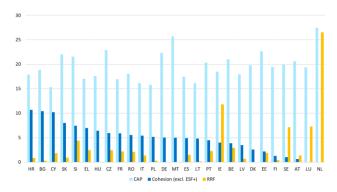
Current investments

The current level of biodiversity financing is estimated to be EUR 332 million per year (in 2022 prices) in 2021–2027. 62 % of this is considered direct financing to biodiversity and ecosystems, with a 100 % coefficient in the tracking schemes.

22.4 % of the total financing is estimated to come from EU cohesion policy, 58 % from CAP and 9.5 % from Horizon Europe. The EU MFF altogether accounts for 95 % of the financing and the RRF for 0.6 %, adding up to a total of 96 % from the EU budget. The rest, 4 %, comes from national sources. 157

At 0.3 %, Bulgaria has a very low share of RRF funding dedicated to supporting measures for biodiversity compared with other Member States. Bulgaria programmed 18.9 % of its CAP budget for 2021–2027 for biodiversity, which is around the EU average. Lastly, 10.4 % of Bulgaria's cohesion policy EU contribution is estimated to contribute to biodiversity (disregarding ESF+), which is above the EU average (see Figure 31).

Figure 31: 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, Bulgaria's investment gap is estimated to be EUR 1.4 billion per year, corresponding to 1.7 % of its GDP.

Public financial management

Green budgeting practices

Green budgeting refers to the use of budgetary tools to achieve climate and environmental goals. Some Member States already use green budgeting tools for identifying and tracking green expenditures and/or revenues (158). Green budgeting practices provide increased transparency on the environmental implications of budgetary policies.

The Commission has developed a non-mandatory green budgeting reference framework that brings together methodologies for assessing the impacts of budgets on climate and environmental goals (159).

- (154) 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.
- (155) 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.
- (156) See Proposal for a directive of the European Parliament and of the Council on soil monitoring and resilience (Soil Monitoring Law) COM(2023) 416 final of 5 July 2023, https://environment.ec.europa.eu/publications/proposal-directive-soil-monitoring-and-resilience en.
- (157) 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.
- (158) 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.
- (159) European Commission, 'European Union green budgeting reference framework', 2022, https://economy-finance.ec.europa.eu/economic-and-fiscal-governance/green-budgeting-eu-en.

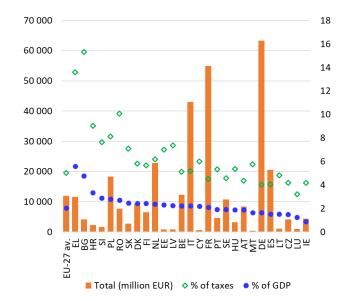
To help Member States develop national green budgeting and thereby improve policy coherence and support the green transition, the Commission facilitated a technical support instrument (TSI) project on green budgeting from 2021 to 2024 (¹⁶⁰). Bulgaria participated, developing and testing green budgeting practices at national level.

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

Green taxation and tax reform

Total environmental taxes amounted to EUR 4.1 billion in Bulgaria in 2022, representing 4.8 % of its GDP (EU average: 2.0 %). Energy taxes formed the largest component of environmental taxes, accounting for 4.5 % of GDP, which is significantly higher than the EU average of 1.6 %. Transport taxes, at 0.25 % of GDP, were lower than the EU average (0.4 %), as were taxes on pollution and resources, at 0.03 % (EU average: 0.08 %). In 2022, environmental taxes in Bulgaria accounted for 15.3 % of total revenues from taxes and social security contributions (well above the EU average of 5.0 %) (¹⁶²).

Figure 32: 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 (163), Bulgaria does not apply environmental taxes to discourage environmentally harmful activities and behaviours.

Green bonds and sustainable bonds

In 2023, the total value of the green bonds issued by Member States was USD 245 billion (EUR 227 billion), up from USD 234 billion (EUR 198 billion) in 2021 (164).

During 2021–2023, Bulgaria did not issue green bonds.

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

^{(160) &}lt;a href="https://reform-support.ec.europa.eu/what-we-do/revenue-administration-and-public-financial-management/supporting-implementation-green-budgeting-practices-eu_en.">https://reform-support.ec.europa.eu/what-we-do/revenue-administration-and-public-financial-management/supporting-implementation-green-budgeting-practices-eu_en.

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

⁽¹⁶²⁾ Eurostat, 'Environmental taxes accounts', env_eta.

⁽¹⁶³⁾ European Commission: Directorate-General for Environment, Candidates for Taxing Environmental Bads at National Level,

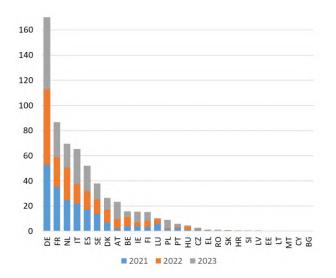
Publications Office of the European Union, Luxembourg, 2024, Annex 2, <a href="https://op.europa.eu/en/publication-detail/-/publication/35c1bbdf-2931-11ef-9290-01aa75ed71a1/language-en/publication/35c1bbdf-2931-11ef-

⁽¹⁶⁴⁾ 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.

increased (to 5.9 % and 8.4 %, respectively) and the share of water had remained around 5 %.

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

Figure 33: Value of green bonds issued per Member State (billion EUR), 2021, 2022 and 2023



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

Environmentally harmful subsidies

Addressing and phasing out environmentally harmful subsidies, in particular fossil fuel subsidies (FFS), is a further step towards achieving the eighth environment action programme objectives and the enabling conditions (165). 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

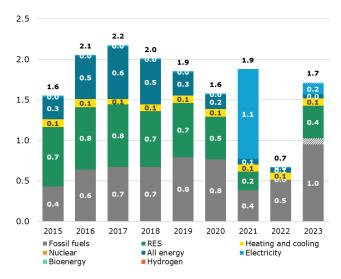
2020. From 2021 to 2023, there was a marked increase in annual FFS of 72 % in the EU (166).

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 (¹⁶⁷). In particular, FFS for coal and lignite, natural gas and oil increased in 2022 and a strong increase was observed for natural gas subsidies.

In Bulgaria, the energy subsidies have decreased since 2017. As part of this, however, FFS slightly increased, reaching EUR 0.8 billion in 2020. In 2021, FFS dropped to EUR 0.4 billion, but showed signs of recovery in 2023 (to EUR 1 billion).

As a share of GDP, FFS in 2022 ranged from 1.8 % in Croatia to less than 0.1 % in Denmark and Sweden. Bulgaria's value reached 0.6 %, below the EU average (0.8 %) (168).

Figure 34: Energy subsidies by energy carrier (billion EUR), 2015–2023



NB: RES, renewable energy source.

Source: analysis of Directorate-General Energy

The overall environmental investment gap is around 2.9 % of GDP (well above the EU average), with almost 60 % of the identified investment needs unmet (i.e. constituting a gap).

 ⁽¹⁶⁵⁾ Article 3(h) and 3(v) of the eighth environment action programme.
 (166) 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

^{(167) 16} Member States: BE, EE, IE, EL, ES, FR, HR, IT, CY, LT, HU, NL, AT, PT. RO and SE.

⁽¹⁶⁸⁾ European Commission, 2024 Report on Energy Subsidies in the European Union, COM(2025), https://ec.europa.eu/transparency/documentsregister/detail?ref=COM(2025)17&lang=en

2025 priority action

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

6. Environmental governance

Information, public participation and access to justice

Citizens can more effectively protect the environment if they rely on the three 'pillars' of the Aarhus Convention: (i) access to information, (ii) public participation in decision-making and (iii) access to justice in environmental matters. It is of crucial importance to public authorities, the public and businesses that environmental information is shared efficiently and effectively (169). Public participation allows authorities to make decisions that take public concerns into account. Access to justice is a set of guarantees that allows citizens and NGOs to use national courts to protect the environment, safeguard the rights of citizens and ensure accountability of authorities (170). It includes the right to bring legal challenges ('legal standing') (171).

Environmental information

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

Table 3: Bulgaria dashboard on implementation of the Inspire Directive, 2016–2023

	2016	2023	Legend		
Effective coordination					
Ensure effective coordination	-		Implementation of this provision is well advanced or		
Data sharing without obstacle	-	•	(nearly) completed. Outstanding issues are minor		
INSPIRE performance	e indicato	ors	and can be addressed easily. Percentage: >89% Implementation of this provision has started and made some or substantial progress but is still not close to		
i. Conformity of metadata	•	•			
ii. Conformity of spatial data sets ¹⁷²	•				
iii. Accessibility of spatial data sets through view and download services	•	•			
iv. Conformity of network services	•	•	be complete. Percentage: 31– 89% Implementation of this provision is falling significantly behind. Serious efforts are necessary to close implementation gap. Percentage: <31%		

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

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

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.

⁽¹⁷⁰⁾ These guarantees are explained in the European Commission's 2017 notice on access to justice in environmental matters (https://eur-lex.europa.eu/legalcontent/EN/ALL/?uri=CELEX:52017XC0818(02)) and a related 2018 citizen's guide (https://op.europa.eu/en/publication-detail/-

⁽¹⁷¹⁾ This EIR focuses on the means used by Member States to guarantee rights of access to justice and legal standing and to overcome other major barriers to bringing cases on environmental protection.

¹⁷² The deadlines for implementation of the spatial data interoperability were in 2016 still in the future: 23/11/2017 for Annex I data and 21/10/2020 for Annex II and III data. It must be also considered that this conformity indicator will in many cases never reach 100% conformity as majority of the countries provide as-is-data sets in addition to the INSPIRE harmonised data sets.

Bulgaria's performance in implementing the Inspire Directive has been reviewed based on its 2023 country fiche (173) (see Table 3) and shows some progress.

Bulgaria was subject to an infringement procedure regarding the Inspire Directive. In 2022, Bulgaria also received a priority action on the need to improve access to spatial data and services. It has made some progress, but implementation levels are still limited. More efforts are needed regarding the Inspire Directive to make the data more widely accessible. Public participation

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

This section examines how public involvement and transparency are ensured under two instruments, namely the Environmental Impact Assessment (EIA) Directive (¹⁷⁴) and the Strategic Environmental Assessment (SEA) Directive (¹⁷⁵).

EU law provides for a flexible framework concerning EIAs. The aim of this framework is to ensure the application of the necessary environmental safeguards, while enabling speedy approval of projects. The Commission has contributed to simplifying and accelerating permitting for renewable energy projects and continues to support the Member States in this regard (176). Bulgaria has already taken steps aiming to accelerate permit-issuing procedures taking advantage of the broad flexibilities

offered by the EU legal framework, such as the establishment of one-stop shops and accelerated short deadlines for issuing permits for renewable energy projects.

The average speed in the EU for issuing permits involving an EIA procedure is 20.6 months, with a minimum duration of 11.4 months and the maximum duration of 75.7 months (177). In Bulgaria, the average length is 13 months, excluding the development consent stage. The duration of each step in an EIA process (screening, scoping, EIA report, public consultation, reasoned conclusion, development consent) varies considerably between Member States and projects. Effective use of EU procedures can positively influence the timely approval of activities underpinning the decarbonisation of the economy on the way to net zero by 2050.

A new report is not yet available on the application and effectiveness of the SEA Directive in the EU. Nevertheless, a support study has been published with information by Member State (178).

EIA and SEA (179) procedures and the possibility for the public to submit views regarding plans or projects that require such procedures are mandatory in Bulgaria. The Ministry of Environment and Water and the Regional Inspectorates for Environment and Water (for SEA/EIA falling within their region) provide well-developed and updated information on SEA/EIA procedures on their websites. The information published covers notifications for investment proposals (planned projects), information on assessing the need for an EIA or SEA, information for forthcoming public consultations on EIA reports (and the EIA reports itself) or environmental assessment consultations, EIA decisions (or refusals), SEA opinions (or refusals), transboundary EIA / environmental assessment procedures and public registers on EIA/SEA. Since the 2022 EIR, Bulgaria has improved public participation by amending its Environmental Protection Act to introduce the requirement for the competent authorities to inform the public of the nature of the possible decisions, and to announce the draft EIA decisions no later than three

⁽¹⁷³⁾ European Commission, 'Bulgaria', Inspire Knowledge Base, https://knowledge-base.inspire.ec.europa.eu/bulgaria en.

⁽¹⁷⁴⁾ 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.

⁽¹⁷⁵⁾ 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.

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

⁽¹⁷⁷⁾ European Commission: Directorate-General for Environment, Collection of information and data on the implementation of the revised Environmental Impact Assessment (EIA) Directive (2011/92/EU) as amended by 2014/52/EU), Publications Office of the European Union, Luxembourg, 2024, Tables 5 and 6, https://op.europa.eu/en/publication-detail/-/publication/8349a857-2936-11ef-9290-01aa75ed71a1/.

⁽¹⁷⁸⁾ 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

¹⁷⁹⁾ Bulgarian law uses the notion of 'environmental assessment' as equivalent to that of SEA.

working days prior to the meeting of the relevant authority for their adoption.

Citizens and NGOs may express their opinions, suggestions and comments in written form, via email (during the consultations) or in person at public hearings of EIA/SEA reports. However, while the national law requires the competent authority to make the main reasons and considerations on which the decision is based available to the public and other relevant authorities, this does not cover information about the public participation process. In addition, the national law provides no sanctions covering essential violations of the EIA procedures.

Statistics on the level of public participation in decision-making processes including authorisations are available in the national reports on the state and protection of the environment in the Bulgaria (available on the Executive Environmental Agency website) (180) and the Ministry of Environment and Water reports (181).

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 mentioned in the 2022 EIR, Bulgarian legislation grants standing to interested persons (environmental NGOs and physical persons) to bring to court both measures of a general nature, such as protected area management plans, and certain regulatory acts issued by the executive authorities

The normative acts (by-laws) issued by the executive authorities can be challenged (articles 185–196). Citizens, organisations and bodies whose rights, freedoms or legal interests are affected, or may be affected, by a normative

act, or for whom such an act gives rise to obligations, have the right to challenge the act.

The Spatial Development Act (SDA) introduces a limited possibility for legal review (Article 127 (12) and (13) of the SDA), granting standing to owners of estates directly affected by a plan. These estates are defined as plots in which the plan envisages either the construction of public infrastructure or the restriction of the owner's rights for public interests related to the protection of the environment and of human health, or the protection of agricultural areas, forest areas, protected areas and SACs. There is still no access to justice in cases where plans envisage, for example, urbanising protected areas or otherwise affecting such sites. Similarly, the detailed plans cannot be challenged by the general public or environmental NGOs, but only by owners, holders of limited property rights and concessionaires of the plot or of the neighbouring real estate regulated or directly affected by the detailed spatial plan (Article 131 of the SDA). At the moment, the prevailing case-law on the matter is that only environmental NGOs registered with public interest have a right to appeal in environmental cases.

To grant standing to the interested public within the scope of EIAs, the court carries out an admissibility test regarding the legal personality and legal interest of the complainant, as well as the suitability of the challenged act as a subject of appeal. There is a persistent practice of restrictive interpretation by the national courts, whereby standing has not been granted to the public concerned – including NGOs – to challenge a municipal programme for improving the quality of the ambient air under the Clean Ambient Air Act (182). This practice goes against the settled case-law of the Court of Justice of the European Union (183) and is subject to infringement proceedings by the Commission (184).

If an act is adopted in the form of a law (normative instrument), the only possibility for the direct judicial review of the act is before the Constitutional Court, and only specific subjects (one fifth of the members of parliament, the President, the Council of Ministers, the Supreme Court of Cassation, the Supreme Administrative Court and the Prosecutor General) are entitled to initiate this review (Article 150(1) of the constitution).

In the 2022 EIR, Bulgaria received two priority actions in this area: (i) to improve access to courts by the public concerned when it comes to challenging administrative or

^{(180) &}lt;a href="http://eea.government.bg/bg/dokladi.">http://eea.government.bg/bg/dokladi.

⁽¹⁸¹⁾ https://www.moew.government.bg/bg/otchet-za-izpulnenietona-byudjeta-po-politiki-i-programi-za-2020-g-na-mosv/.

⁽¹⁸²⁾ Confirmed by Supreme Administrative Court Order No 552 of 24 January 2022 (https://info-adc.justice.bg/courts/portal/edis.nsf/e act.xsp?id=1765866&cod e=vas&guid=2130851112).

⁽⁸³⁾ Commission notice on access to justice in environmental matters (2017/C 275/01) (OJ C 275, 18.8.2017, p. 1).

⁽¹⁸⁴⁾ Commission notice on access to justice in environmental matters (2017/C 275/01) (OJ C 275, 18.8.2017, p. 1). See infringement proceeding INFR(2020)2106.

regulatory decisions and omission; and (ii) to better inform the public about their right to access to justice. Some progress has been made in terms of access to justice as regards general spatial plans. No progress has been made in the area of access to justice on air pollution. No progress has been made in better informing the public of their right to access to justice.

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

Compliance assurance

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

Compliance promotion, monitoring and enforcement

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

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

In November 2023, a regional conference dedicated to strengthening the fight against crime affecting the environment was held, which representatives from Albania, Bosnia and Herzegovina, Bulgaria, Croatia,

France, Greece, Kosovo, Montenegro, North Macedonia, Serbia, Slovakia, Slovenia, Poland and Romania attended(186).

It appears that the environmental compliance assurance system in Bulgaria would benefit from providing more human and financial resources to inspections and enforcement authorities and from more active participation in the work of the EU Network for the Implementation and Enforcement of Environmental Law. Completion of a more detailed assessment of compliance assurance activities will be an aim for a future EIR.

The 2022 EIR recommended that Bulgaria should (i) make a structured and centralised online information point available for farmers and other duty-holders covering how to comply with their obligations under the Nitrates and Nature Directives; (ii) encourage public participation in enforcement through awareness-raising activities on the options for reporting environmental problems, and more generally establish active plans for making use of citizen science; and (iii) make information and statistics available on the prosecution of environmental crimes and provide information on formal arrangements for cooperation among responsible public bodies. Concerning compliance promotion, monitoring, and criminal and administrative enforcement, the 2022 priority actions are not assessed here due to lack of systematic information. Similarly, the Commission is not aware of whether information is easily available online at the national level for farmers regarding compliance with the Nitrates and Nature Directives, and hence the related 2022 priority action is not assessed.

The new EU Environmental Crime Directive

The EU has recently strengthened its legal framework on tackling the most serious breaches of environmental obligations, notably by the adoption of the new Environmental Crime Directive (ECD) (Directive (EU) 2024/1203)(¹⁸⁷) 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

⁽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).

^{(&}lt;sup>186</sup>) https://www.selec.org/strengthening-the-fight-against-crimesthat-affect-the-environment-in-southeast-europe/

Directive 2024/1203/EU on the protection of the environment through criminal law (https://eurlex.europa.eu/eli/dir/2024/1203/oj/eng),

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

Member States are required to transpose the new ECD into national law by 21 May 2026 and to take additional measures to more effectively combat environmental crime, in particular through training, coordination, cooperation and strategic approaches. The Commission will provide support, including by facilitating the identification and sharing of good practices. Member States are expected to ensure the necessary resources and specialised skills required and they are invited to encourage their authorities to support and cooperate with the recognised EU-level networks of environmental enforcement practitioners, such as the EU Network for the Implementation and Enforcement of Environmental Law (188), EnviCrimeNet (189), the European Network of Prosecutors for the Environment (190) and the EU Forum of Judges for the Environment (191). 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) (¹⁹²) 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 (193), which will be finalised in 2025, and which was supported by an external study (194), containing, among other things, evidence, views, reports and other relevant information gathered from different stakeholder groups, including Member States.

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

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

From 1 May 2013 to 31 March 2022, Bulgaria reported one occurrence of an imminent threat of environmental damage (water damage) and two occurrences of environmental damage under the ELD (one land/soil and water damage case and one water and biodiversity damage case). Bulgaria also reported one non-ELD case of biodiversity damage. In the previous reporting period,

^{188) &}lt;u>https://www.impel.eu/en</u>.

⁽¹⁸⁹⁾ LIFE+SATEC project (https://webgate.ec.europa.eu/life/publicWebsite/project/LIFE2 0-PRE-ES-000001/fight-against-environmental-crime-at-a-strategic-level-through-the-strengthening-of-environmental-network-of-experts-in-environmental-criminal-investigations).

^{(190) &}lt;a href="https://www.environmentalprosecutors.eu">https://www.environmentalprosecutors.eu.

^{(191) &}lt;a href="https://www.eufje.org/index.php?lang=en">https://www.eufje.org/index.php?lang=en.

⁽¹⁹²⁾ Directive 2004/35/EC on environmental liability with regard to the prevention and remedying of environmental damage (https://eurlex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A02004L0035-20190626).

⁽¹⁹³⁾ Commission staff working document - Evaluation of the Environmental Liability Directive, forthcoming 2025.

⁽¹⁹⁴⁾ European Commission: Directorate-General for Environment and Fogleman, V., Study in support of the evaluation of the Environmental Liability Directive and its implementation – Final report, Publications Office of the European Union, Luxembourg, 2024, https://op.europa.eu/en/publication-detail/-/publication/006d90e5-980a-11ef-a130-01aa75ed71a1/language-en.

there were four confirmed occurrences of imminent threat.

Insurance for liabilities is covered by the Bulgarian Civil Code. To date, 138 insurance policies have been submitted to the Ministry of Environment and Water. Bulgaria has not introduced a mandatory financial security system for *ex ante* ELD liabilities but has introduced a scheme in which operators can submit evidence of insurance to the Ministry of Environment and Water, the competent authority for the ELD. If this has been done, the operator avoids the need to provide *ex post* financial security in ELD-related occurrences. Concerning compliance promotion, monitoring, and criminal and administrative enforcement, as well as the ELD, the 2022 priority actions are not assessed here due to a lack of systematic information.

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 (¹⁹⁵) 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 (¹⁹⁶) and the TAIEX-EIR PEER 2 PEER tool (¹⁹⁷). The technical assistance available through the cohesion policy is subject to shared management and is not dealt with in this subsection.

The Commission's technical support instrument

The TSI provides Member States with tailor-made technical expertise on the design and implementation of

reforms. The support is demand driven and does not require national co-financing.

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

- Creation and implementation of regulatory mechanisms for the natural gas market in Bulgaria from the Energy and Water Regulatory Commission (2023);
- Strategy for the development of entrepreneurship, innovation and digitisation in Stara Zagora and a roadmap for its implementation from the municipality of Stara Zagora (2023);
- ESG (198) risk management framework for the financial sector from the Financial Supervision Commission (2023);
- Development of legal framework for fully fledged and comprehensive regional green hydrogen market from the Ministry of Energy (2024);
- Building a resilient innovation ecosystem in Bulgaria from the Ministry of Innovation and Growth (2024);
- Improving the competence and skills of FMFIB in sustainable finance and implementation of green and digital financial instruments from the Fund Manager of Financial Instruments in Bulgaria (2024);
- Enhancing the centre of government's capacities to steer complex priorities and manage crisis and megatrends through peer-to-peer review and learning from the administration of the Council of Ministers (2024).
- Action plans for sustainable forest management in Bulgaria from the Executive Forest 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 Commission to present new and upcoming environmental legislation and policy in all Member States (199).

- (195) 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).
- (196) 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).
- (197) 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-2peer en). TAIEX: Technical Assistance and Information Exchange. 'ESG' here 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 Workshops involving Bulgaria are as follows:

- Future challenges in the air protection in Europe with the Czech EU presidency (24 November 2022);
- Decentralised bio-waste recycling in Austria (9– 10 October 2023);
- New aspects in the cross-border cooperation against environmental crime (19–20 November 2024).
- Freight transport by rail (in relation to waste transport) (17 18 March 2025).

Bulgaria also hosted an expert mission on dune protection (28–29 February 2024).

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.

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

Annex 2025 priority actions

Circular economy and waste management

Transitioning to a circular economy

Adopt measures to increase the circular material use.

Waste management

- Ratify international conventions on ship recycling.
- Increase reuse of products and scale up waste recycling infrastructure associated with the higher steps of the waste hierarchy. In particular, improve collection and increase treatment capacity for bio-waste.
- Increase 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.
- Invest in waste prevention measures to reduce the total amount of waste generated.
- Ensure the achievement of the 2025 waste targets, following the recommendations made by the Commission in the Early Warning Reports where applicable.

Biodiversity and natural capital

Global and EU biodiversity frameworks

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

Nature protection and restoration – Natura 2000

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

Recovery of species

 Reinforce action for habitats and species in unfavourable conservation status, for example through restoration measures, increased connectivity, better policy coordination and integration, and increased funding.

Recovery of ecosystems

- Implement eco-schemes and agri-environmental measures and practices to address the environmental needs of Bulgaria.
- Implement and scale-up the uptake of organic farming practices.

Marine ecosystems

- Report Bulgaria's programme of measures, as required under Article 13 of the MSFD.
- Report updates on the assessment of the state of Bulgaria's marine waters, its target and its determinations of GES, which are expected to include any threshold values for the descriptors in the MSFD that may have been established in cooperation with other Member States at the EU or regional level.

Prevention and management of invasive alien species

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

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.

Noise

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

Water quality and management

Drinking Water Directive

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

Nitrates Directive

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

Urban Wastewater Treatment Directive

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

Chemicals

- Upgrade the administrative capacities in implementation and enforcement 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

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

Financing

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

Environmental governance

Information, public participation and access to justice

- Make spatial data more widely accessible and prioritise environmental datasets in implementing the Inspire Directive, especially those identified as high-value spatial datasets for implementing environmental legislation.
- Improve access to courts in national environmental cases by the public concerned and eliminate practical barriers, such as length of proceedings and excessive costs in some Member States.

Environmental liability directive

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