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Environmental Implementation Review 2022 Country Report - BULGARIA

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Environmental Implementation Review 2022: Turning the tide through environmental compliance

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Executive summary

The main challenges identified in past EIRs with regard to implementation of EU environmental policy and law by Bulgaria were:

- the need to improve air quality
- the need to ensure appropriate collection and treatment of urban waste water; and
- the need to properly implement nature protection legislation.

Despite some progress in implementing measures addressing **air pollution**, it is still cause for serious concern. Bulgaria is one of the Member States with the most pollution-related deaths, number of years of life lost associated with air pollution, and urban population exposure to micro-particles.

There has been no significant progress in ensuring compliance with the **urban wastewater** requirements of EU law. The overall compliance rate in Bulgaria is 30%, which is the fourth lowest in the EU.

Waste management continues to be a challenge, despite municipal waste generation remaining below the EU average. There is no progress on the 'polluter pays' principle since the 2017 and 2019 EIRs. Bulgaria continues to postpone applying a fairer calculation of waste collection fees after adopting the necessary legal basis years ago. Implementation of **nature protection** legislation also remains a challenge. Bulgaria is advancing with the designation of special areas of concervation (SAC). However, Bulgaria has yet to establish the requisite site-specific conservation objectives and measures for all of its Natura 2000 sites.

Although in an advanced stage of preparedness, the overarching **circular economy** policy programme has yet to be adopted and applied in Bulgaria.

Short-lived parliaments and political instablity in most of 2021 did not help as regards addressing the challenges Bulgaria is facing in many spheres, including the environment. The coalition agreement, signed by the parties that formed a government in December 2021 is the first general political document of governing parties with explicit and detailed commitments on environment. However, it is not clear if this agreement is of a programming nature for the government and whether there is a timeline for the implementation of the commitments.

From the European Structural and Investment Funds (ESIFs), Bulgaria received EUR 1 667.5 million to cover direct environmental investments in 2014-2020. Bulgaria has spent less than one third of it - EUR 505 million. Most of the funds were spent on water management EUR 285.7 million; on climate mitigation and adaptation, risk management - EUR 60.9 million; on biodiversity and nature - EUR 55 million; on waste management - EUR 49 million; and on air quality - EUR 16.2 million - all far below the planned allocations. On land rehabilitation Bulgaria spent EUR 38.1 million, which is slightly above the originally allocated amount. Total environmental financing in 2014-2020 is estimated to have reached 1.91% of GDP, while the investment needs for 2021-2027 are at least 2.98% of GDP, signalling a significant financing gap (over 1.07% of GDP).

Bulgaria is due to receive EUR 6.27 billion from its recovery and resilence plan (RRP) (2021-2026) and EUR 9.77 billion from the cohesion policy (ERDF, CF, ESF+ and ETC(ERDF)) (2021-2027).

Part I: Thematic areas

1. Circular economy and waste management

Measures towards a circular economy

The new Circular Economy Action Plan adopted in March 2020 is one of the main building blocks of the European Green Deal. The EU's transition to a circular economy will reduce pressure on natural resources and will create sustainable growth and jobs. It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss. The Action Plan announces initiatives along the entire life cycle of products, aiming to reduce the EU's consumption footprint and to double the EU's circular material use rate by 2030. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented and the resources used are kept in the EU economy for as long as possible.

The circular material use rate is a good indicator of an economy's circularity, as it includes all materials that are fed back into our economy. Large differences in the circularity rate exist among countries. To help achieve the goal in the EU circular economy action plan of doubling the EU circular material use rate by 2030, ambitious measures targeting the whole product life cycle are needed at Member States' level. Such measures range from sustainable product design that makes it possible to increase the durability, reparability, upgradability and recyclability of products, to other measures such as (i) remanufacturing; (ii) increasing the circularity in production processes; (iii) recycling; (iv) boosting eco-innovation; and (v) increasing the uptake of green public procurement.

Figure 1: Circular material use rate (%), 2010-2020¹



¹ Eurostat, <u>Circular Economy Monitoring Framework</u>.

The circular (secondary) use of material in Bulgaria was 4.3% in 2016 and 2.6% in 2020, significantly lower than the EU average of 12.8%. It demonstrates a steady decline in secondary material usage in recent years with a slight positive change of trend in 2020².

Resource productivity expresses how efficiently the economy uses material resources to produce wealth. 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 0.36 generated per kg of material consumed in 2020, resource productivity in Bulgaria is well below the EU average of EUR 2.09 per kg.





Circular economy strategies

The Commission encourages Member States to adopt and implement national/regional circular economy strategies covering the whole life cycle of products. This is because such strategies are one of the most effective ways to progress towards a more circular economy at a Member State level. Since the launch of the online Circular Economy Platform in 2017⁴, national, regional or local authorities have used the platform to share their strategies and roadmaps.

On 2 December 2020, the national development programme 'Bulgaria 2030' was adopted. It is a strategic framework, which determines the vision and

⁴ Circular economy stakeholder platform

² Eurostat, Circular material use rate

³ Eurostat, <u>Resource productivity</u>

overall goals of development policies in all sectors of state governance. The main objective of its 'green and sustainable Bulgaria' priority is to increase the resource productivity. There is a focus on shifting from landfilling to prevention, reuse, recycling and recovery of waste. Rational and responsible use of waste will be a fundamental prerequisite for improving the 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 on construction and demolition waste. However, the national development programme 'Bulgaria 2030' includes initiatives targeting these sectors.

A strategy and action plan for transition to circular economy in Bulgaria 2021-2027⁵ was drafted in June 2021. The draft is focused on three strategic objectives: 1) Green and competitive economy; 2) Less waste, more resources and 3) Economy to the benefit of consumers. The Action Plan consists of short-term, mid-term and long-term measures. The short-term measures include drafting and adoption of sectoral legal acts to cover single use plastics, green procurement, etc. This is a first step by Bulgaria to develop an overarching circular economy policy programme demonstrating some progress in implementing the priority action received in 2019 EIR.

The environmental component of the new government's coalition agreement has a chapter dedicated to the circular economy⁶. It provides for a review and update of the strategy and action plan for transition to circular Economy. However, the document does not provide any specific commitments as regards timeline and actions for implementation of the agreed measures.

The 2021-2028 waste management plan was adopted in June 2021⁷. The plan should play a key role in achieving a resource-efficient and sustainable waste management. It envisages implementation of measures in the strategy for the transition to a circular economy concerning products containing critical raw materials for the EU and for Bulgaria to prevent as far as possible products containing such raw materials from becoming waste. It also sets the aims of increasing the qualification and skills for effective use of resources under the green transition and the circular economy and raising awareness of practices and behaviour in sustainable consumption, and the circular economy.

⁶ Annex 11 to the coalition agreement

Eco-innovation

A successful transition to a circular economy requires social and technological innovation. This is because the full potential of the circular economy can only be reached when it is implemented across all value chains. Eco-innovation is an important enabling factor for the circular economy. New approaches to product design and new business models can help to produce systemic circularity innovations, creating new business opportunities.

In 2021, Bulgaria occupied the last rank on the 2021 Eco-Innovation Scoreboard, indicating the country's need to urgently catch up with eco-innovation activities. In all five components (eco-innovation inputs, eco innovation activities, eco innovation outputs, resource efficiency outcomes and socio-economic outfits) of the Eco-Innovation Index, Bulgaria performs well below the EU average.

Figure 3: Eco-innovation performance 2010-2019⁸



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 can help drive the demand for sustainable products that meet repairability and recyclability standards. To date reporting to monitor the uptake of green public procurement (GPP) is voluntary.

A national strategy for development of the public procurement sector in Bulgaria is in force, as well as an Action Plan for the period 2014-2020. In 2020, the promotion of GPP and the results of the project "Methodological support for the development of GPP in Bulgaria" under the Bulgarian-Swiss cooperation

⁵ Draft <u>Strategy and action plan for transition to Circular Economy in</u> <u>the Republic of Bulgaria 2021-2027</u>

⁷ National waste management plan 2021-2028

⁸ European Commission - Directorate-General for Environment (DG ENV), Eco-innovation Observatory, <u>Eco-innovation scoreboard and the eco-innovation index.</u>

programme also continued through awareness raising (e.g. distribution of a practical handbook on green public procurement, update of information regarding green criteria at EU level), trainings on green public procurement by the Public Procurement Agency.

Ecolabel and the Eco Management and Audit Scheme (EMAS)

The number of EU Ecolabel products and EMASlicensed⁹ organisations in a given country provides 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. It also shows how committed public authorities are to supporting instruments designed to promote the circular economy.

As of September 2021, Bulgaria had 89 products out of 83 590, and 5 licenues out of 2 057, registered in the EU Ecolabel scheme. This shows a continued very low takeup of both the products and the licences. Moreover, as of October 2021, 17 organisations, amounting to 40 sites in Bulgaria are registered in EMAS. Nevertheless, since 2019, there have been 66 new product registrations of the EU Ecolabel, as well as 8 new organisations registered with EMAS. EU Ecolabel licensers have remained the same.

Bulgaria has made some progress in implementing the 2019 priority action on developing a comprhensive circular economy strategy but has not yet adopted it. Therefore it is maintained. As Bulgaria's circular material use rate is well below the EU average, a priority action on this is proposed.

2022 priority action

- Bulgaria should adopt and start implementing the strategic long-term view and an integrated approach to mainstreaming government's policies to speed up the uptake of the circular economy by all economic sectors.
- Bulgaria should adopt measures to increase the circular material use rate.

Waste management

Turning waste into a resource is supported by: (i) fully implementing EU waste legislation, which includes the waste hierarchy, the need to ensure separate collection of waste, the landfill diversion

targets, etc.;

(ii) reducing waste generation and waste generation per capita in absolute terms;

(iii) limiting energy recovery to non-recyclable materials and phasing out landfilling of recyclable or recoverable waste.

This section focuses on the management of municipal waste 10 for which EU law sets mandatory recycling targets.

Preventing products and materials from becoming waste for as long as possible is the most efficient way to improve resource efficiency and to reduce the environmental impact of waste. Waste prevention and re-use are the most preferred options and are therefore at the top the waste hierarchy. The amount of municipal waste generated is a good indicator of the effectiveness of waste prevention measures.

There is no clear trend in municipal waste generation in Bulgaria. It came to 407 kg/y/inhabitant compared to the EU average of 496 kg/y/inhabitant after a peak in 2017, when it reached 435 kg/y/inhabitant. That was after a slight downward trend since 2014 as Figure 4 shows. In 2018, the municipal waste generation in Bulgaria was the fifth lowest in the EU.

Figure 4: Municipal waste by treatment in Bulgaria, 2010-2018¹¹



¹⁰ Municipal waste consists of (a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture; (b) 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, Art. 3 2b).

⁹ EMAS is the European Commission's eco-management and audit scheme, a programme to encourage organisations to behave in a more environmentally sustainable way.

¹¹ Eurostat, <u>Municipal waste by waste operation</u>, April 2022 (2019 and 2020 data not yet available from Bulgaria).

Figure 4 also shows municipal waste by treatment type and by kg per capita. There is no clear trend in the treatment of municipal waste. In 2018 landfilling stabilised at slightly above 60% of the waste generated, energy recovery doubled compared to 2017, while composting dropped dramatically from nearly 8% in 2017 to less than 2% in 2018. Despite having one of the lowest levels of generation of municipal waste, Bulgaria remains one of the Member States with the highest landfilling rate (61% in 2018 compared to EU average of 24%).

Moreover, based on information available to the Commission, it appears that there are irregular and substandard landfills that operate in Bulgaria and present serious risks for human health and the environment. Studies and investigations launched by the European Commission found that in a number of landfills, waste is not subject to treatment that includes an adequate selection of waste streams and stabilisation of organic waste. Also, the network of installations for treatment of waste before landfilling for mixed municipal waste and biowaste is insufficient. In November 2021 the Commission has initiated an infringement procedure against Bulgaria¹² for failing to comply with the Landfill Directive¹³ and the Waste Framework Directive¹⁴.

Despite having stopped accepting waste in all substandard landfills covered by the Court judgement in case C-145/14 *Commission v Bulgaria*, Bulgaria has not yet completed the works to ensure definite closure and rehabilitation of these landfills. Bulgaria's implementation record thus still needs improvement to ensure, as a matter of priority, definitive closure and rehabilitation as well as elimination of any illegal landfills. Despite significant progress in the closure of non-compliant sites, their rehabilitation still remains a challenge.

As noted in the previous environmental implementation country reports, 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 has been postponed a number of times, the last target date being 1 January 2022. However, in February 2021, an amendment to the Law on Local Taxes and Fees by an amendment to the 2020 'Pandemic Law4¹⁵ 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. at least until 2024.

After a slight increase in the rate of recycling of municipal waste (including composting) in 2017, in 2018 Bulgaria went back to the 2016 level of 32% due to the significant decrease in composting. This rate is well below the EU average of 46 % (EU 2017). Figure 5 shows that Bulgaria needs to step up investment in recycling to meet the EU 2020 and 2025 recycling targets.

Figure 5: Recycling rate of municipal waste, 2010-2018¹⁶



The Commission's Early Warning report¹⁷ listed Bulgaria as one of the countries at risk of missing the EU 2020 target of recycling 50 % of municipal waste. The report listed key priority measures which Bulgaria should take to close the implementation gap. The Commission is currently finalising its analysis of the progress on the recommendations from the 2018 Early Warning Reports and an analysis of progress towards achieving the 2025 waste recyling targets. This report will be presented at the end of 2022 and will assess the progress made to date.

¹² INFR(2021)5342.

¹³ Directive 1999/31/EC.

¹⁴ Directive 2008/98/EC.

 ¹⁵ Act amending and supplementing the 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.
 ¹⁶ Eurostat, <u>Recycling rate of municipal rate</u>, april 2022 (2019 and

²⁰²⁰ data not yet available from Bulgaria). ¹⁷ European Commission, Report on the implementation of waste legislation, including the early warning report for Member States at risk of missing the 2020 preparation for re-use/recycling target on municipal waste, <u>SWD(2018)422</u> accompanying <u>COM(2018)656</u>.

Implementation of the 2018 waste legislative package

Bulgaria has notified to the Commission the national legislation transposing the 2018 waste package.¹⁸ A conformity assessment is ongoing.

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

Bulgaria has amended its National waste management plan. According to the Commission's assessment, it seems that the WMP does not comply with the requirement to include measures to combat litter introduced with the 2018 waste package.

In the 2019 EIR, four priority actions were set for Bulgaria. As there is little to no progress in their implemention and in light of the upcoming Early warning report, they are reiterated, and a priority action for the waste management plan is added. Bulgaria also received a general priority action in 2019 on signing and ratifying outstanding international agreements.

2022 priority actions

- Complete the process of rehabilitation of noncompliant landfills.
- Prevent illegal dumping of waste, including littering.
- Improve and extend separate collection of waste, including for biowaste. Set minimum service standards for separate collection (e.g. frequency of collection, types of containers, etc.) in municipalities to ensure high rates of capture of recyclable waste. Develop and run implementation support programmes for municipalities to help support efforts to organise separate collection and improve recycling performance.
- Enforce and use economic instruments, such as payas-you-throw.
- Ensure a national waste management plan in line with the requirements of the revised Waste Framework Directive is in place.
- Ratify relevant international conventions on ship recycling.

¹⁸ <u>Directive (EU) 2018/851</u>, <u>Directive (EU) 2018/852</u>, <u>Directive (EU) 2018/850</u> and <u>Directive (EU) 2018/849</u> amend the previous waste legislation and set more ambitious recycling targets for the period up to 2035.

2. Biodiversity and natural capital

The 2030 EU biodiversity strategy adopted in May 2020 aims to put the EU's biodiversity on a path to recovery and sets out new targets and governance mechanisms to achieve healthy and resilient ecosystems.

In particular, the strategy sets out ambitious targets to: (i) protect a minimum of 30% of the EU's land area and 30% of its sea area and integrate ecological corridors, as part of a true trans-European nature network;

(ii) strictly protect at least a third of the EU's protected areas, including all remaining EU primary and oldgrowth forests;

(iii) effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately.

The strategy also sets out an EU nature restoration plan – a series of concrete commitments and actions to restore degraded ecosystems across the EU by 2030, and manage them sustainably, addressing the key drivers of biodiversity loss.

The EU's Habitats and Birds Directives are the key legislative tools to deliver on the targets of the EU biodiversity strategy for 2030, and are the cornerstone of EU legislation aimed at conserving the EU's wildlife, natural habitats and ecosystems¹⁹.

A new biodiversity strategy for Bulgaria was prepared; it went through public consultation in 2021. Its adoption is pending. The strategic document sets the main objectives and targets to be met by Bulgaria in the next decade and formulates specific measures and actions. All 12 national objectives set in the document respond to commitments taken at global level or relate to the targets set in the EU 2030 biodiversity strategy.

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

Nature protection and restoration

Natura 2000²⁰, the largest coordinated network of protected areas in the world, is the key instrument to

achieve the objectives in the Birds and Habitats Directives. These objectives are (i) to ensure the long term protection, conservation and survival of Europe's most valuable and threatened species and habitats; and (ii) to maintain or restore the favourable conservation status of these species and habitats. Key milestones towards meeting the objectives of the Birds and Habitats Directives are: (i) the setting up of a coherent Natura 2000 network; (ii) the designation of sites of community importance (SCIs) as SACs²¹; and (iii) the setting of site-specific conservation objectives and measures for all Natura 2000 sites.

Setting up a coherent network of Natura 2000 sites

Bulgaria hosts 92 habitat²² types and 209 species²³ covered by the Habitats Directive. The country also hosts populations of 184 bird species listed in the Birds Directive Annex I^{24} and 126 migratory birds.

At 2021, 34.9% of the territory of Bulgaria was covered by Natura 2000 (EU average 18.5%). Special Protection Areas (SPAs), classified under the Birds directive cover 23.1% (EU average 12.8%) of Bulgaria, while SCIs – under the Habitats Directive cover 30.3% (EU average 14.2%).

On the basis of Natura 2000 and other nationally designated protected areas, Bulgaria legally protects 41% of its terrestrial areas (EU 27 average 26,4%) and 8.1% of marine areas (EU 27 average 10,7%)²⁵. Figure 6 shows the 2021 situation at the EU level for terrestrial and marine protected area coverage in meeting the 2030 biodiversity strategy target.

¹⁹ These should be strengthened by the Nature Restoration Law, according to the new EU biodiversity strategy.

²⁰ 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; figures of coverage do not add up due to the fact that some SCIs and SPAs overlap. Special Areas of Conservation (SACs) means a SCI designated by the Member States.

²¹ Sites of Community Importance (SCIs) are designated pursuant to the Habitats Directive whereas Special Protection Areas (SPAs) are designated pursuant to the Birds Directive; figures of coverage should not be added up because some SCIs and SPAs overlap. Special Areas of Conservation (SACs) are SCIs designated by the Member States.
²² EEA, <u>Article 17 dashboard</u>, Annex I total, 2019.

²³ EEA, <u>Article 17 dashboard</u>, Annex II + Annex IV excluding those in Annex II + Annex V excluding those in Annex II, 2019. This counting only takes into account species and habitats for which assessment of conservation status was requested.

 $^{^{\}rm 24}$ EEA, Article 12 dashboard, Annex I, 2020. This counting only takes into account birds taxa for which information was requested.

²⁵ EEA, <u>Protected Areas</u>, terrestrial protected area percentage (2021) and marine protected area percentage (2019), March 2022.

Figure 6: Marine & terrestrial protected area coverage²⁶



Figure 7: Natura 2000 terrestrial protected area coverage, 2021²⁷



²⁶ EU Biodiversity Strategy Dashboard, indicators A1.1.1 and A1.2.1, February 2022.

Designating SACs and setting conservation objectives and measures

The 6-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.

With 186 designated SACs by February 2022, the country is closer to completing the designation of its SCIs as SACs, albeit significantly behind schedule. However, Bulgaria has not yet established site specific conservation objectives for any of its Natura 2000 sites. Despite providing for some measures dispersed in various documents, Bulgaria has not yet established the necessary conservation measures as required by the Habitats Directive. Work on setting conservation objectives started only at the end of 2021 and work on the conservation measures has yet to begin. The European Commission has therefore referred the case to the Court of Justice of the EU²⁸.

The lack of clear, good quality site specific objectives and conservation measures is a major obstacle to properly assessing the compatibility of development projects that could affect the integrity of the Natura 2000 sites and the species and habitats they have been designated for. Bulgaria's persistent failure to properly assess the impacts of projects and plans on the Natura 2000 sites has also led to infringement action by the Commission²⁹.

Progress in maintaining or restoring favourable conservation status of species and habitats

To measure the performance of Member States, Article 17 of the Habitats Directive and Article 12 of the Birds Directive require reporting on the progress made towards maintaining or restoring the favourable conservation status of species and habitats.

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 for habitats in good conservation status in 2018 is slightly higher than the 10.87% reported under the previous reporting period (2007-2012). As to protected species, the share of assessments of good conservation status in 2018 is 38.06%, a significant decrease compared to the 53.32% reported under the previous reporting period (2007-2012). As far as birds are concerned, 54% of the breeding species showed short-term increasing or

²⁷ European Environment Agency, Natura 2000 Barometer, February 2022.

²⁸ Cae C-85/22 Commision v Bulgaria

²⁹ INFR(2008)4461

stable population trends (for wintering species the figure was nearly 30%).

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

Figure 8: Assessments on conservation status for habitats for 2007-2012 and 2013-2018 reporting periods³⁰



Figure 9: Assessments on conservation status for species for 2007-2012 and 2013-2018 reporting periods³¹



³⁰ European Environment Agency, Conservation status and trends of habitats and species, December 2021. Please note when comparing the figures shown for 2007-2012 and 2013-2018 these may also be affected by changes of methods or due to better data availability. ³¹ Idem. In early 2022 the Commission confirmed that Bulgaria's national prioritised action framework (PAF) for the period 2021-2027, developed pursuant Art. 8 of the Habitats Directive, is a comprehensive and good quality document which provides a full overview of the measures necessary to implement the Natura 2000 network in Bulgaria. Full implementation of these measures will contribute to the achievement of the objectives of the EU Habitats Directive to maintain or restore the natural habitats and species of European importance at a favourable conservation status. An appropriate tool to ensure efficient implementation of PAF is the submission of a LIFE strategic nature project (SNAP). These large and long term projects help with the overall coordination of the PAF implementation and allow for necessary resource mobilisation, stakeholder engagement and removal of administrative or other barriers to successful network management. Bulgaria is still to consider and submit an application for a LIFE SNAP project.

In the 2019 EIR, Bulgaria was set three priority actions in the area of nature protection and restoration but there is little to no progress in their implementation; therefore they are reiterated.

Bringing nature back to agricultural land and restoring soil ecosystems

Agricultural land

The biodiversity strategy works alongside the new farm to fork strategy and the new common agricultural policy (CAP) to support and achieve the transition to fully sustainable agriculture.

The biodiversity and farm to fork strategies have set four important targets for 2030:

 a 50% reduction in the overall use of – and risk from – chemical pesticides;

- a 50% reduction in the use of more hazardous pesticides;

- a 50% reduction in losses of nutrients from fertilisers while ensuring there is no deterioration of soil fertility (which will result in a 20% reduction in the use of fertilisers);

- bring back at least 10% of agricultural area under highdiversity landscape features and increase areas under organic farming to at least 25%.

Bulgaria's estimated 2.3% of area under organic farming has the third lowest value, and is well below the EU average of 9,07% (2020 data, Eurostat). Thus the opportunities provided by this type of farming have yet to be explored.

Figure 10 shows the 2021 situation and the distance at the EU level from meeting the 2030 biodiversity strategy target for area under organic farming.

Figure 10: Share of total utilised agricultural area occupied by organic farming per Member State, 2020³²



Bulgaria is one of the Member States with the highest loss of land with high nature value (HNV) due to intensification of farming. Addressing these challenges will require the promotion of sustainable agricultural practices to reduce pressures on farmland biodiversity, combined with measures to manage the habitats of wild insect pollinators, farmland birds and turtle doves in line with the PAF³³.

Soil ecosystem

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The new EU soil strategy, adopted on 17/11/2021, puts an emphasis on the importance of soil protection, of sustainable soil management and of restoration of degraded soils for achieving the objectives of the Green Deal and achieve Land Degradation Neutrality by 2030. This entails:

(i) preventing further soil degradation,

(ii) making sustainable soil management the new normal,

(iii) taking action for ecosystem restoration.

One factor in the degradation of soil eco-systems is the area of soil that is sealed or atificialised ('taken')³⁴.

Bulgaria ranks well below the EU average as regards land take with 2.3% of soil sealed or artificialised (EU average: 4.2% - 2018 data, EU-27)³⁵.

The net land taken per year in 2012-2018 can be seen as a measure of one significant pressure on nature and biodiversity - land use change. At the same time, land use change constitutes an environmental pressure on people living in urbanised areas.

Despite a reduction in the last decade (land take was over 1000 km²/year between 2000-2006), land take in EU27 still amounted to 539km²/year between 2012-2018³⁶. The concept of 'net land take' combines land take with the return of land to non-artificial land categories (re-cultivation). While some land was re-cultivated in the EU-28 in 2000-2018, 11 times more land was taken than returned.

Bulgaria ranks below the EU average with net land take of 53,4 m^2/km^2 (EU-27 average: 83,8 m^2/km^2).

On soil quality, Bulgaria is in the category of EU Member States with lower content of organic matter. Its soils are characterised by a lack of phosphorus and would benefit from fertilising practices designed to rebalance soils. Rebalancing would also benefit climate and air quality³⁷.

Bulgaria has not committed to set land degradation neutrality targets under United Nations Convention on Combating Desertification³⁸.

https://ec.europa.eu/eurostat/databrowser/view/sdg 02 40/ default/table?lang=en (Eurostat, Area under organic farming, February 2022).

³³ Commission Staff Working Document <u>SWD2020 (369) – Bulgaria</u>

³⁴ Artificial land cover is defined as the total of roofed built-up areas (including buildings and greenhouses), artificial non built-up areas (including sealed area features, such as yards, farmyards, cemeteries, car parking areas etc. and linear features, such as streets, roads, railways, runways, bridges) and other artificial areas (including bridges and viaducts, mobile homes, solar panels, power plants, electrical substations, pipelines, water sewage plants, and open dump sites).

³⁵ Eurostat, Land covered by artificial surfaces

³⁶ Land take in Europe — EEA (europa.eu) fig 6

³⁷ Commission Staff Working Document SWD2020 (369) – Bulgaria

³⁸ The LDN Target Setting Programme | UNCCD



Figure 11: Land take and re-cultivation in the EU27 (m²/km²), 2012-2018³⁹

Forests and timber

The EU forest strategy for 2030 adopted in July 2021 is part of the 'Fit for 55' Package. The Strategy promotes the many services that forests provide. Its' key objective is to ensure healthy, diverse and resilient EU forests, that contribute significantly to the strengthened biodiversity and climate ambition. Forests are important carbon sinks, conserving them is vital for the EU's vision of achieving climate neutrality by 2050.

Out of the 27% of EU forest area protected under the Habitats Directive, fewer than 15% of assessments show favourable conservation status⁴⁰. Bad conservation status increased from 27% to 31% in the EU compared to 2015.

In Bulgaria, forests cover 36% of territory⁴¹ and more than 75% of the assessments of the conservation status of forest habitats protected under the Birds and Habitats Directives reveal a bad to poor status⁴². 704 000 ha in Bulgaria is covered by primary forests,⁴³ 99% of them in Natura 2000 sites.

Figure 12: Conservation status of forests protected under the Habitats Directive in EU Member States, 2013-2018 (% assessments)⁴⁴



The European Union Timber Regulation (EUTR)⁴⁵ prohibits the placing of illegally harvested timber on the EU market. In accordance with the EUTR, EU Member States competent authorities must conduct regular checks on operators and traders, and apply penalties for non-compliance. With the amendment of Article 20 of the EUTR, reporting every two years has been changed to annual reporting to cover the 2019 calendar year.

From March 2017 to February 2019⁴⁶, Bulgaria carried out 587 checks on domestic timber operators. It also carried out 37 checks on operators importing timber. It is estimated that Bulgaria had 4 000 operators placing domestic timber types onto the internal market over the reporting period.

Following a request from the Council in 2019 to table a legislative proposal on forests and a European Parliament resolution recommending that the Commission create an EU legal framework to halt and reverse EU-driven global deforestation, a proposal for the Regulation on the making available on the EU market and export of products associated with deforestation and forest degradation (Deforestation Regulation) was adopted on 17 November 2021

The new Deforestation Regulation will repeal and replace the EUTR, as it will essentially integrate and improve the existing system to check the legality of timber.

⁴⁶ <u>COM/2020/629 final</u>

³⁹ European Environment Agency, Land take in Europe.

⁴⁰ EEA, State of Nature in the EU

⁴¹ EEA, <u>Forest information system for Europe</u>.

⁴² <u>COM SWD (2021) 652</u>

⁴³ JCR, <u>Mapping and assessment of primary and old-growth forests in</u> <u>Europe</u>, p. 13.

⁴⁴ European Environment Agency, Conservation status and trend in conservation status by habitat group - forests, January 2022.

⁴⁵ <u>Regulation (EU) No 995/2010 of the European Parliament and of the</u> <u>Council of 20 October 2010</u>.

According to the Impact Assessment for the Environmental Crime Directive illegal logging is a frequent offence in Bulgaria⁴⁷.

Invasive alien species (IAS)

IAS are a key cause of biodiversity loss in the EU (alongside changes in land and sea use, overexploitation, climate change and pollution).

Besides inflicting major damage on nature and the economy, many IAS also facilitate the outbreak and spread of infectious diseases, posing a threat to humans and wildlife.

The implementation of the EU Invasive Alien Species Regulation and other relevant legislation must be stepped up.

The biodiversity strategy for 2030 aims to manage recognised IAS and decrease the number of 'red list' species they threaten by 50%.

The core of Regulation (EU) 1143/2014 on invasive alien species (the IAS Regulation) is the list of IAS of Union concern.

The total number of IAS) of Union concern is currently 66, of which: 30 are animal species; 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.

According to a 2021 report⁴⁸ reviewing the application of the IAS Regulation, progress is already being made on the objectives, such as a coherent framework for addressing IAS at EU level and increased awareness of the problem of IAS. At the same time, the report identified some challenges and areas for improvement. Given that the deadlines for implementing the various obligations of the IAS Regulation applied gradually between July 2016 and July 2019, it is premature to draw conclusions on various aspects of implementation of the Regulation.

A 2021 report⁴⁹ on the baseline distribution shows that from the 66 species on the Union list, 15 have been observed in the environment in Bulgaria. The spread of IAS has been shown in Figure 13.

Figure 13: Number of IAS of EU concern, based on available georeferenced information for Bulgaria, 2021



TOTAL IAS OF UNION CONCERN IN THE COUNTRY: 15



https://easin.jrc.ec.europa.eu

Along with other 17 Member States, Bulgaria is subject to ongoing infringement proceedings as it failed to establish and implement one single action plan or a set of action plans fulfilling the requirements specified in Article 13 of 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 it in their 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 Regulation⁵⁰.

2022 priority actions

- Bulgaria should complete the SAC designation process as a matter of priority and put in place clearly defined site-specific conservation objectives and the necessary conservation measures for each habitat and species of community interest in all Natura 2000 sites.
- Bulgaria should establish efficient management structures for the Natura 2000 network, with sufficient administrative and financial capacity.
- Bulgaria should address shortcomings in the implementation of the nature directives (in particular the authorisation of plans and projects) and integration of the policy in the other sectoral policies.
- Bulgaria should take the necessary steps to ensure full compliance with the IAS Regulation.

⁴⁷ SWD(2021) 465 final/2, p.18

⁴⁸ Report from the Commission to the European Parliament and the Council on the review of the application of 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, <u>COM(2021) 628 final</u>, 13.10.2021.

⁴⁹ Cardoso A.C., Tsiamis K., Deriu I., D' Amico F., Gervasini E., EU Regulation 1143/2014: assessment of invasive alien species of Union concern distribution, Member States reports vs JRC baselines, EUR 30689 EN, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-37420-6, doi:10.2760/11150, JRC123170.

⁵⁰ INFR(2021)2007

Marine ecosystems

The EU Biodiversity Strategy 2030 aims to substantially reduce the negative impacts on sensitive species and habitats in marine ecosystems and to achieve good environmental status as well as eliminate or reduce the incidental catches of protected, endangered, threatened and sensitive species to a level that allows species recovery and conservation⁵¹.

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 Member States sharing the same marine region or sub-region. These marine strategies comprise different steps to be developed and implemented over 6-year cycles.

The MSFD describes the GES based on eleven descriptors. The MSFD requires Member States to draw up a set of GES characteristics for each descriptor (Article 9)) by 15 October 2018, and to provide an initial assessment of their marine waters (Article 8). The Commission then assesses whether this constitutes an appropriate framework to meet the requirements of the Directive.

As highlighted in the Commission's report on the implementation of the MSFD⁵², although regional cooperation has improved since the adoption of the MSFD, more cooperation is needed to attain full regional coherence of the marine strategies, as required by the Directive.

Bulgaria received four priority actions in the 2019 report related to defining and achieving GES, ensuring cooperation and reporting under MSFD.

Furthermore, in March 2022, the European Commission published a communication with recommendations for Member States. The Commission assessment stresses that Member States need to step up their efforts to determine good environmental status and the use of the criteria and methodological standards according to the Commission GES Decision. The above considerations form the basis for the 2022 priority actions.

Upgrading and updating data and information on the marine environment, and improving the definitions, targets and indicators for assessment of the definitions of good environmental status were addressed by the project 'Science and information towards regional ENvironmental action for the Black Sea (SCIRENA-Black Sea)', financed under the European Economic Area (EEA) Financial Mechanism 2014-2021. Bulgaria completed its reporting in March 2022.

Ecosystem assessment and accounting

The EU biodiversity strategy for 2030 calls on Member States to better integrate biodiversity considerations into public and business decision making at all levels and to develop natural capital accounting. EU needs a better performing biodiversity observation network and more consistent ecosystem condition reporting.

The EEA Financial Mechanism 2009–2014 through programme BG03 Biodiversity and Ecosystem services funded the national scale mapping and assessment of ecosystems and ecosystem services outside NATURA 2000 at EUNIS 3 level.

The mapping and assessment was performed in parallel for several projects, each of which mapped and assessed one or two of the nine ecosystem types in Bulgaria. The projects were: Freshwater Ecosystem Services mapping and assessment in Bulgaria (FEMA) also assessing marine ecosystems; Wetland Ecosystem Services mapping and assessment in Bulgaria (WEMA); Assessment and mapping of grassland ecosystems condition and their services in Bulgaria (IBER-GRASS); Mapping and assessment of sparsely vegetated land ecosystem services in Bulgaria (SPA-Ecoservices); Toward better understanding the ecosystem services in urban environments through assessment and mapping (TUNESinURB); Ecosystem services mapping and assessment of heathland and shrubs ecosystems in Bulgaria outside NATURA 2000 (SHE-BG), also assessing cropland ecosystems; and Forests and woodlands ecosystem services mapping and assessment in the Bulgarian forest territories outside NATURA 2000 network (FOR OUR FUTURE). The projects further performed additional activities for some ecosystem types, notably an assessment of ecological focused areas (EFAs) in two pilot locations, urban mapping in two pilot cities, and a socio-economic assessment of the heathland and shrubs ecosystem services.

Before, in parallel and after the mapping and assessment, two horizontal projects ensured the coordination of the mapping projects: Project PDP02 - methodological support for ecosystem services mapping and biophysical valuation (MetEcoSMap) and Project improving the Bulgarian biodiversity information system (IBBIS).

⁵¹ The EU Common Fisheries Policy (CFP) aims to contribute to the achievement of the objectives of the environmental legislation for marine ecosystems.

⁵² COM(2020)259

Figure 14: ESMERALDA MAES Barometer (January 2016 - March 2021)⁵³



Key policy priority areas for Bulgaria are: water regulation ecosystems, forest ecosystems (extent, carbon sequestration), biodiversity, urban areas extent and ecosystems, cultural ecosystems (tourism, cultural heritage) and supply and use tables for these ecosystems.

An updated forest extent account is under development, as well as an extent account for all ecosystems for the years 2000 up to 2018. A biophysical ecosystem account is being constructed for cultural ecosystem services and for flood regulation, both on a local scale. Thematic accounts are being set up for carbon in forest ecosystems on a regional scale, urban ecosystems on a local scale and biodiversity on a national scale.

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

2022 priority actions

 Bulgaria should ensure better collaboration among all stakeholders to identify and close the data gaps. Policy support is a necessary condition for further development of the core and thematic accounts. More training and capacity building at the state and research institutions of all scales should enable them to be more effective in showing the business community and society in general, the real value of the natural environment.

- Bulgaria should ensure regional cooperation with Member States sharing the same marine (sub)region to address predominant pressures.
- Bulgaria should implement the Commission's recommendations regarding the preparation of the marine strategies, encompasing: the assessment, the determination of good environmental status and the establishment of environmental targets.

⁵³ European Commission, Joint Research Centre, Publication Office, EU Ecosystem assessment: summary for policymakers, page 80, May 2021.

3. Zero Pollution

Clean air

EU clean-air policies and legislation need to significantly improve air quality in the EU, moving the EU closer to the quality recommended by the WHO and curbing emissions of key air pollutants.

Air pollution and its impacts on ecosystems and biodiversity should be further reduced with the longterm aim of not exceeding critical loads and levels. This requires strengthening efforts to reach full compliance with EU clean-air legislation and defining strategic targets and actions for 2030 and beyond.

The 2030 zero-pollution action-plan targets are to reduce the health impacts of air pollution by 55% and to reduce the EU ecosystems threatened by air pollution by 25%, compared to 2005.

The EU has developed a comprehensive suite of clean air legislation, which sets health-based air quality standards⁵⁴ –and emission reduction commitments⁵⁵ per Member State for a number of air pollutants.

At the same time, air quality in Bulgaria continues to give cause for serious concern. The latest available annual estimates (for 2019) by the European Environment Agency⁵⁶ point to about 10 600 premature deaths (or 112 400 years of life lost (YLL)) attributable to fine particulate matter concentrations⁵⁷, 290 (3 200 YLL) to ozone concentration⁵⁸ and 1 120 (11 900 YLL) to nitrogen dioxide concentration⁵⁹.

The emissions of key air pollutants have decreased significantly in Bulgaria over the last years, while GDP growth continued (see Figure 15). According to the latest projections as submitted under Article 10(2) of the National Emission reduction Commitments Directive (NECD)⁶⁰ Bulgaria plans to reach its emission reduction commitments for all air pollutants covered by the Directive for 2020 to 2029 and for 2030 onwards. Latest inventory data submitted by Bulgaria, prior to the review

⁵⁴ European Commission, 2016. <u>Air Quality Standards.</u>

⁵⁵ European Commission, <u>Reduction of National Emissions</u>.

by the Commission, indicate that Bulgaria is in compliance with the emission reduction commitments for NOx, non-methane volatile organic compounds (NMVOC), SO2 and PM2.5, and in non-compliance with the emission reduction commitment for NH3 in 2020.

Bulgaria submitted its national air pollution control programme on 26 September 2019.

Figure 15: Emission trends of main pollutants/GDP in Bulgaria, 2005-201961



Figure 16: PM2.5 and NOx emissions by sector in Bulgaria (2019)⁶²



⁶¹ European Environment Agency.

⁶² European Environment Agency.

⁵⁶ <u>European Environment Agency. Air Quality in Europe – 2021 Report.</u> Please see details in this report as regards the underpinning methodology, p.106.

⁵⁷ Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM10 (PM2.5) refers to particles with a diameter of 10 (2.5) micrometres or less. PM is emitted from many human sources, including combustion. ⁵⁸ Low-level ozone is produced by photochemical action on pollution.

⁵⁹ NOx is emitted during fuel combustion e.g. from industrial facilities and the road transport sector. NOx is a group of gases comprising nitrogen monoxide (NO) and nitrogen dioxide (NO2).



Bulgaria has not yet ratified the Heavy Metals Protocol and the Persistent Organic Pollutants (POPs) Protocol under the United Nations Economic Commission for Europe (UNECE) Air Convention.

For 2020, rates above the limit values set by the Ambient Air Quality Directive (AAQD) were registered for sulphur dioxide (SO₂) in one air quality zone and for particulate matter (PM_{10}) in five zones. The target values for ozone concentration are not being met in one air quality zone⁶³.

Persistent breaches of air quality requirements, which have severe negative effects on health and environment, are being followed up by the European Commission through infringement procedures (mainly for PM₁₀ and NO₂ exceedances) covering all Member States concerned, including Bulgaria for PM₁₀ and SO₂. For exceedances of PM10 limit values, the Court of Justice of the European Union (CJEU) delivered a judgment (C-488/15; COM vs Bulgaria) confirming non-compliance with Directive 2008/50/EC. Bulgaria did not take the necessary measures to execute the judgment in reasonable time and the Commission referred it to the Court for a second time, proposing penalties (C-174/21). The Commission has also referred Bulgaria to the CJEU (C-730/19) for persisting exceedances of SO2 limit values in the southeast zone, where the four largest thermal power plants in Bulgaria are located. The aim of these legal actions is that appropriate measures are swiftly put in place to bring all air quality zones into compliance with EU air quality standards.

⁶³ European Environment Agency, <u>Eionet Central Data Repository</u>.

Bulgaria is making use of financial resourse by the Cohesion Fund and LIFE programme to address PM_{10} pollution by household heating.⁶⁴

In the 2019 EIR, Bulgaria received five priority actions on air quality. Because of the insufficient progress in their implementation, they are essentially reiterated.

2022 priority actions

- Bulgaria must continue, in the context of the national air pollution control programme (NAPCP), taking actions to reduce emissions from the main sources mentioned above.
- Bulgaria must ensure full compliance with EU air quality standards and maintain downward emissions trends of air pollutants, to reduce adverse air pollution impacts on health and economy with a view to reaching WHO guideline values in the future.
- Bulgaria should accelerate the ratification of the Heavy Metals Protocol and POPs Protocol under the UNECE Air Convention.

Industrial emissions

The main objectives of EU policy on industrial emissions
are to:
(i) protect air, water and soil;
(ii) prevent and manage waste;
(iii) improve energy and resource efficiency;
(iv) clean up contaminated sites.
To achieve this, the EU takes an integrated approach to

the prevention and control of routine and accidental industrial emissions. The cornerstone of the policy is the Industrial Emissions Directive (IED)⁶⁵. The Commission tabled a proposal in April 2022⁶⁶. The revision seeks to improve the Directive's contribution to the zero-pollution objective, as well as its consistency with climate, energy and circular economy policies.

The overview of industrial activities regulated by IED below is based on data reported to the EU Registry (2018)⁶⁷.

⁶⁴ <u>Bulgarian Municipalities Working Together to Improve Air Quality</u> (LIFE-IP Clean Air)

⁶⁵ Directive 2010/75/EU covers industrial activities carried out above certain thresholds. It covers the energy industry, metal production, the mineral and chemical industry, waste management, and a wide range of industrial and agricultural sectors (e.g. intensive rearing of pigs and poultry, pulp and paper production, painting and cleaning).

⁶⁶ European Commission, <u>proposal for a revision of the Industrial</u> <u>Emissions Directive</u>, 4 April 2022. The revision of the IED is performed in parallel to the revision of Regulation (EC) No 166/2006 on the European Pollutant Release and Transfer Register (E-PRTR).

⁶⁷ European Environment Agency, European Industrial Emissions Portal.

In Bulgaria, around 550 industrial installations are required to have a permit based on the IED. This is an increase of about 75 installations since 2015, mainly in the waste management sector and in intensive rearing of poultry or pigs. The distribution of installations is shown in Figure 17.

The industrial sectors in Bulgaria with the most IED installations in 2018 are intensive rearing of poultry or pigs (20%), landfills (18%), production of chemicals (15%), followed by power production (7%) and non-ferrous metal (7%).

Figure 17: Number of IED industrial installations per sector in Bulgaria, 2018⁶⁸



The industrial sectors identified as contributing the largest burden to the environment for **emissions to air** were: (i) the production of non-ferrous metal for zinc (Zn), copper (Cu), lead (Pb), arsenic (As), mercury (Hg), nickel cadmium (Cd), nickel (Ni) and dioxins; (ii) the power sector for sulphur oxides (SOx), nitrogen oxides (NOx), Cu, As, Hg and Ni; (iii) the intensive rearing of poultry or pigs for ammonia (NH₃); (iv) food and drink production and coating applications for NMVOCs; and (v) chemicals production for SOx and NH₃. The breakdown is shown in Figure 18.

Figure 18: Emissions to air from IED sectors and rest of national total air emissions in Bulgaria, 2018⁶⁹



In 2017, one power station in Bulgaria (TPP Maritsa iztok 2 EAD, burning lignite) was amongst the top 30 E-PRTR facilities having the highest absolute damage costs from emissions of the main air pollutants and greenhouse gases. Bulgaria was also the Member State with the second highest damage costs aggregated over all pollutant groups normalised against GDP⁷⁰.

The environmental burdens for industrial emissions to water mainly result from livestock, production of chemicals and the production of pulp and paper for nitrogen, phosphorous and total organic carbon, from the production of non-ferrous metal, electricity and heat production as well as extractive industry for heavy metals. The breakdown, based on E-PRTR data, is presented in the Figure 19.

⁶⁹ European Environment Agency, LRTAP, Air pollutant emissions data viewer (Gothenburg Protocol, LRTAP Convention) 1990-2019 (data retrieved on 3 November 2021).

⁷⁰ EEA (2021). <u>Costs of air pollution from European industrial facilities</u> <u>2008–2017</u>. Eionet Report - ETC/ATNI Report 04/2020, The ranking is based on the approach accounting for the value of a life year (VOLY), table 41, p.125

⁶⁸ European Environment Agency, EU Registry, <u>European Industrial</u> <u>Emissions Portal (data retrieved on 3 November 2021)</u>.



Figure 19: Relative releases to water from industry in Bulgaria⁷¹, 2018⁷²

The EU approach to enforcement under the IED creates strong rights for the public to have access to relevant information and to participate in the permitting process for potentially polluting installations. This empowers the public and NGOs to ensure that permits are appropriately granted and that the conditions of the permits are complied with. As part of environmental inspection, competent authorities undertake site visits to IED installations to take samples and gather necessary information. According to Article 23(4) of the IED, site visits must be carried out between once a year and once every 3 years, depending on the environmental risks posed by the installations. In 2018 Bulgaria made 454 site visits, most of which were to the waste management sector (28%), chemicals production (17%), followed by power production (13%), intensive rearing of poultry or pigs (12%) and the production of non-ferrous metal (6%) - see Figure 20.

Figure 20: Number of inspections in IED installations in Bulgaria in 2018⁷³



The development of best available techniques (BAT) reference documents (BREFs) and BAT Conclusions ensures good collaboration between stakeholders and enables better implementation of the IED⁷⁴. Since the last EIR report, the Commission adopted BAT conclusions for Bulgaria for (i) waste incineration, (ii) for the food, drink and milk industries and (iii) for surface treatment using organic solvents including the preservation of wood and wood products with chemicals.

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

Bulgaria has some issues with transposition of the IED.

In 2019, Bulgaria received priority actions to ensure compliance with BAT conclusions by reviewing permits, strengthening control and enforcement and addressing pressure on the power sector.

2022 priority actions

• Bulgaria should continue to address the emissions to air from the energy sector.

Major industrial accidents prevention – SEVESO

The main objectives of EU policy on the prevention of major industrial accidents are to: (i) control major accident hazards involving dangerous substances, especially chemicals; (ii) limit the consequences of such accidents for human health and the environment;

(iii) continuously improve prevention, preparedness and response to major accidents.

The cornerstone of the policy is Directive 2012/18/EU

⁷³ EU Registry (data retrieved on 3 November 2021)

⁷¹ The heavy metals are presented both as a weighted sum of eco toxicity and human toxicity factors to illustrate both the ecological and human impact (based on USEtox).

⁷² European Commissionpean Environment Agency, E-PRTR, European Industrial Emissions Portal (data retrieved on 3 November 2021).

⁷⁴ BAT reference documents | Eippcb (europa.eu).

(the Seveso III Directive)⁷⁵.

The overview of industrial plants regulated by the Seveso-III Directive ('Seveso establishments)' shown below is based on data reported to the eSPIRS database (2018)⁷⁶ and the Bulgaria report on the implementation of the Seveso-III Directive for 2015-2018⁷⁷.

Of the 202 Seveso establishments in Bulgaria, 121 are categorised as lower-tier establishments (LTE) and 81 as upper-tier establishments (UTE) – based on the quantity of hazardous substances likely to be present in them. The UTE 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, 2011, 2014 and 2018⁷⁸



Many Seveso establishments 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 at a Seveso establishment. According to Bulgaria, an EEP is required for 76 UTE. In 2018, 64 UTE had an EEP and 64 of these EEP had been tested over the previous 3 years. The summary is shown in Figure 22. Figure 22: Situation regarding EEP in Bulgaria, 201879



The following types of information are permanently available for 100% of the Seveso establishments in Bulgaria: (i) information to the public referred to in Annex V to the Seveso III Directive – especially about how the public concerned is warned if there is a major accident; (ii) information on the appropriate behaviour if there is a major accident; and (iii) information specifying the date of the last site visit.

The share of UTEs for which information on safety measures and requisite behaviours were actively made available to the public over the last years is shown in Figure 23.

Figure 23: Share of UTE for which information on safety measures and requisite behaviours were actively made available to the public in Bulgaria, 2011, 2014 and 2018⁸⁰



Bulgaria was urged to bring its national legislation in line with the Seveso III Directive. Bulgaria has not yet properly defined the scope of application of the Directive by introducing the notion of 'other establishment' into national legislation, which has cascaded into a number of non-compliant provisions. Some technical provisions

 $^{^{75}}$ Directive 2012/18/EU on the control of major accident hazards involving dangerous substances.

⁷⁶ European Commission, Seveso Plants Information Retrieval System

⁷⁷ As provided for by Article 21(2) of the Seveso-III Directive

⁷⁸ European Commission, 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), 2022.

⁷⁹ Idem.

⁸⁰ Idem.

have also been incorrectly enacted into national law including the definition of 'inspection', as well as information that should be made available to the public, and giving the public an early opportunity to give its opinion.

2022 priority action

• Bulgaria should strengthen control and enforcement to ensure compliance with Seveso-III Directive provisions, especially on EEP.

Noise

The Environmental Noise Directive⁸¹ provides for a common approach to avoid, prevent and reduce the harmful effects of exposure to environmental noise, although it does not set noise limits as such. The main instruments it uses in this respect are strategic noise mapping and planning. A relevant 2030 zero pollution action plan target is a reduction by 30% of the share of people chronically disturbed by transport noise compared to 2017.

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 stress⁸².

In Bulgaria, based on a limited set of data⁸³, environmental noise is estimated to cause at least around 500 premature deaths and 1150 cases of ischaemic heart diseases annually⁸⁴. Moreover, some 80 000 people suffer from disturbed sleep owing to environmental noise. According to reported data, in Bulgaria the overall noise exposure increased by 1% between 2012 and 2017; however, the dataset is not complete and therefore the statistic is not certain. On the basis of the latest full set of information that has been analysed, noise mapping of agglomerations, roads and railways is complete.

Water quality and management

EU legislation and policy requires that the impact of pressures on transitional, coastal and fresh waters (including surface and ground waters) be significantly reduced. Achieving, maintaining or enhancing a good status of water bodies as defined by the Water Framework Directive will ensure that people in the EU benefit from high standards for 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 (WFD)⁸⁵ is the cornerstone of the EU water policy in the 21st century⁸⁶. The WFD and other water-related directives⁸⁷ set the framework for sustainable and integrated water management, which aims at a high level of protection of water resources, prevention of further deterioration and restoration to good status.

By March 2022, Member States have to submit to the Commission the third generation of river basin management plans (RBMPs) required under the WFD. Bulgaria has not submitted it on time. The Commission will assess the reported status and progress in the RBMPs, checking how the findings identified in the assessment of the second RBMPs⁸⁸ have been addressed. Bulgaria has not yet reported the third RBMPs.

In December 2021, the Commission published the 6th Implementation Report⁸⁹, which assesses implementation of the WFD and the Floods Directive⁹⁰. The report includes an assessment of: (i) the implementation of the programmes of measures; and (ii) the new priority substances. The assessment report for Bulgaria⁹¹ showed that Bulgaria has not provided

⁸¹ Directive <u>2002/49/EC</u>

 ⁸² WHO 2018, environmental noise guidelines for the European Region
 ⁸³ For further information: European Environment Agency, Noise Fact

Sheets 2021. ⁸⁴ These figures are an estimation by the European Environmental Agency based on : (i) the data reported by Member States on noise exposure covered by Directive 2002/49/EC; (ii) ETC/ATNI, 2021, Noise indicators under the Environmental Noise Directive 2021: Methodology for estimating missing data, ETC/ATNI Report No 2021/06, European Topic Centre on Air Pollution, Transport, Noise and Industrial Pollution; (iii) the methodology for health impact calculations, ETC/ACM, 2018, Implications of environmental noise on health and wellbeing in Europe, Eionet Report ETC/ACM No 2018/10, European Topic Centre on Air Pollution and Climate Change Mitigation.

⁸⁵ The <u>Water Framework Directive (2000/60/EC)</u>

⁸⁶ The <u>EU Water Policy</u>.

⁸⁷ This includes the <u>Groundwater Directive (2006/118/EC)</u>, the Environmental Quality Standards Directive (2008/105/EC), the <u>Floods</u> Directive (2007/60/EC), the <u>Bathing Water Directive (2006/7/EC)</u>, the <u>Urban Waste Water Treatment Directive (91/271/EEC)</u>, the new Drinking Water Directive (2020/2184/EC), the <u>Nitrates Directive</u> (91/676/EEC), the <u>Marine Strategy Framework Directive (2008/56/EC)</u>, the <u>Industrial Emissions Directive (2010/75/EU)</u> and the new <u>Regulation</u> on minimum requirements for water reuse (2020/741).

⁸⁸ Detailed information can be found in the <u>5th Report from the</u> <u>Commission on the implementation of the Water Framework Directive</u> <u>and the Floods Directive</u>, as well as in the 2019 EIR.

⁸⁹ Please see the <u>6th Implementation Report of the WFD and FD</u>.

⁹⁰ See the <u>6th Implementation Report of the WFD and FD</u>.

⁹¹ European Commission, Directorate-General for Environment, Assessment of Member States' progress in Programmes of Measures during the second planning cycle of the Water Framework Directive. Member State: <u>Bulgaria</u>, 2022.

sufficient information on the values and trends of quantitative indicators to enable thorough analysis of progress on achieving the WFD objectives. Further, delays of measures were reported for the Black Sea River Basin Districts (RBD) and for the Danube RBD, but not clearly explained for the other RBDs.

Based on the reporting of the second round of RBMPs published in 2020⁹², in Bulgaria 46.1% of all surface water bodies⁹³ have good ecological status (with 8.8% having unknown status) and only 33.7% have good chemical status (with 63.7% having unknownstatus). For groundwaters, 34.3% failed to achieve good chemical status; only 4.7% are in poor quantitative status.

Figure 24 illustrates the proportion of surface water bodies in Bulgaria and other European countries that failed to achieve good ecological status.

Figure 24: Proportion of surface water bodies (rivers, lakes, transitional and coastal waters) in less than good ecological status per River Basin District⁹⁴



Reference data: ©ESRI | ©EuroGeographics

Figure 25 presents the percentage of surface water bodies in Bulgaria and other European countries failing to achieve good chemical status. For Bulgaria, the percentage is 2.6 %, including water bodies failing due to substances behaving as ubiquitous PBTs (persistent, bioaccumulative, toxic). Without uPBTs, 2% of surface water bodies are failing good chemical status.

Figure 25: Percentage of surface water bodies not achieving good chemical status⁹⁵



Under the IED framework, it should be stressed that over the last decade Bulgaria showed a significant decline (63.1%) in industrial releases of heavy metals like Cd, Hg, Ni, Pb as well as in the total organic carbon-TOC to water percentage $(52.2\%)^{96}$.

The total water abstracted annually from surface and groundwater bodies in Bulgaria is 5,458.60 hm³ (EEA, 2022). The percentage for water abstraction per sector is 11.48% for agriculture, 16.56% for public water supply, 64.98% for electricity cooling, 4.39% for manufacturing 2.08% for manufacturing cooling and 0.51% for mining and quarrying. The breakdown is illustrated by Figure 26. Bulgaria uses a register to monitor water abstractions. The water permit registers are updated regularly and are publicly available. There is a clear link between the permits registered and the quantities allowed. Small abstractions do not require permits in Bulgaria, but are all registered.

⁹²See <u>WISE - Freshwater.</u>

⁹³ Rivers, lakes, transitional, coastal, territorial.

⁹⁴ European Environment Agency, 2O21.

⁹⁵ European Environment Agency, December 2019.

⁹⁶ European Environment Agency, June <u>2021</u>.

Figure 26: Water abstraction per sector in Bulgaria⁹⁷



The increasing demand for water for multiple purposes and the intensification of severe weather conditions due to climate change have put strain on freshwater supplies in Bulgaria. A practice of issuing permits for abstracted water for a period up 6 years has been imposed by competent authorities, allowing their revision and alignment with the RBMP within the next planning cycle, which is an instance of good practice.

In Bulgaria, the water exploitation index plus $(WEI+)^{98}$ is 1.78% (2017), which is less than the 20% generally considered an indication of water scarcity.

The bar in Figure 27 presents the WEI+ index in Bulgaria and other European countries. Bulgaria is ranked 16^{th} (with first ranking indicating extreme water scarcity) in the EU in the WEI+.

Figure 27 : Water exploitation index plus (WEI+) inside EU, 2017⁹⁹



⁹⁷ European Environment Agency, <u>Water abstraction by source and economic sector in Europe</u>, 2022.

Floods Directive

As previously mentioned, in December 2021 the Commission published the 6th Implementation Report. The report includes a review and an update of the preliminary flood risk assessments (PFRAs) drawn up by all Member States during the second cycle (2016-2021).

Bulgaria did not report in time to be included in the Commission's assessment of second-cycle PFRAs.

Bulgaria has not adopted or reported the second generation of flood risk management plans (FRMPs) under the Floods Directive. The European Commission will assess progress since the adoption of the first FRMPs and publish a new report, as in 2019.

Drinking Water Directive

On the Drinking Water Directive¹⁰⁰, no new assessment of the quality of drinking water is available since the 2019 EIR. The quality of drinking water in Bulgaria has not been indicated as an area of concern.

The recast Directive¹⁰¹ entered into force on 12 January 2021, and Member States have until 12 January 2023 to transpose it into their national legal system. Bulgaria will have to comply with these reviewed quality standards.

Bathing Water Directive

On the Bathing Water Directive, Figure 28 shows that in 2020, out of the 96 Bulgarian bathing waters, 58 (60.4%) were of excellent quality.¹⁰² Detailed information on Bulgarian bathing waters is available from a national portal¹⁰³ and via an interactive map viewer of the European Environment Agency.

⁹⁸ The water exploitation index plus (WEI+) is a measure of total fresh water used as a percentage of the renewable fresh water resources (groundwater and surface water) at a given time and place. It quantifies how much water is abstracted and how much water is returned after use to the environment.

⁹⁹ EEA, Water exploitation Index Plus, 2022.

¹⁰⁰ OJ L 330, 5.12.1998, pp. 32-54.

¹⁰¹ OJ L 435, 23.12.2020, pp. 1-62.

¹⁰² European Environment Agency, 2021. <u>State of Bathing Waters –</u> <u>Bulgarian country report</u>.

¹⁰³ Ministry of Health, <u>Registries, Bathing Waters</u>



Figure 28: Bathing water quality in Europe in the 2020 season¹⁰⁴





^{*}For 2017, 2018 and 2019, data about the UK bathing waters are included under the EU average.

Nitrates Directive

The latest Commission Report on the implementation of the Nitrates Directive¹⁰⁶, refers to 2016-2019¹⁰⁷. The report warns that nitrates are still causing harmful pollution to water in the EU. Excessive nitrates in water are harmful to both human health and ecosystems, causing oxygen depletion and eutrophication. Where

national authorities and farmers have cleaned up waters, it has had a positive impact on drinking water supply and biodiversity, and on sectors such as fisheries and tourism that depend on them. Nevertheless, excessive fertilisation remains a problem in many parts of the EU.

Regrettably, Bulgaria has not provided information to the Commission about the contribution of agriculture to nitrogen discharges in the aquatic environment for the 2016-2019 reporting period.

Bulgaria has low livestock density, the surplus of nitrogen is average for the EU and there is a low surplus for phosphorus. There is a well-developed network of monitoring stations. The groundwater quality is generally good. However, there are hotspots, with a nitrate concentration > 50 mg/l and many monitoring points have a strong increasing trend. A very high number polluted groundwater and of surface waters found to be eutrophic are located outside the Nitrate Vulnerable Zones (NVZ). A revised action programme was published in 2020.

Bulgaria needs to focus on the hotspots where nitrates pollution should be urgently diminished and review the designation of NTZ to include areas that drain into eutrophic waters where agricultural pressure is significant.

Urban Waste Water Treatment Directive

Bulgaria has, over the years, encountered difficulties in meeting its obligations under the Urban Waste Water Treatment Directive (UWWTD). According to the last available data¹⁰⁸, the overall compliance rate in Bulgaria is 30%, which is the fourth lowest and well below the EU average of 76% in 2018.

 $^{^{104}}$ European Environment Agency, Bathing Water Quality in 2020, 2022. 105

European Environment Agency, European Bathing Water Quality in 2017, 2018, 2019, 2020.

 $^{^{\}rm 106}$ Implementation of the $\underline{\rm Nitrates\ Directive}$ in the EU.

¹⁰⁷ Last implementation report 2016-2019.

¹⁰⁸ WISE – – <u>Country profiles on urban waste water treatment -</u> <u>Bulgaria</u>.

Figure 30: Proportion of urban waste water that meets all requirements of the UWWTD (collection, biological treatment, biological treatment with nitrogen and/or phosphorus removal) in compliant urban areas of the UWWTD ('compliance rate'), 2018¹⁰⁹



Despite the improvement in compliance throughout the years, for which the use of EU funding has been fundamental, the incomplete implementation of the UWWTD has led to an infringement procedure which is in the final stage of the pre-litigation phase of the infringement proceedings.

In the 2019 EIR, Bulgaria received four priority actions in the area of water quality and management. Some progress has been made in their implementation but the efforts should continue. Therefore the priority actions are generally maintained.

2022 priority actions

- Bulgaria should assess any new physical changes to water bodies in line with Article 4(7) of the WFD. In the assessments, alternative options and appropriate mitigation measures must be considered.
- Bulgaria should make efforts to improve coordinated implementation between water, marine and nature policies.
- Bulgaria should complete its implementation of the Urban Waste Water Treatment Directive for all agglomerations by building up the necessary infrastructure.

Chemicals

The EU seeks to ensure that chemicals are produced and used in a way that minimises any significant adverse effects on human health and the environment. In October 2020, the Commission published its chemicals strategy for sustainability - 'Towards a Toxic-Free Environment'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 legislation¹¹¹ provides baseline protection for human health and the environment. It also ensures stability and predictability for businesses operating within the internal market.

Since 2007, the Commission has gathered information on the enforcement of the Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals '(the REACH Regulation') and the Regulation on Classification, Labelling and Packaging ('the CLP Regulation'). In December 2020, the Commission assessed the Member States' reports on the implementation and enforcement of these Regulations¹¹², in line with Article 117(1) of the REACH Regulation and Article 46(2) of the CLP Regulation. According to the latest available data, national enforcement structures have not changed much in recent years. However, it is apparent from this report that there are still many disparities in the implementation of the REACH and CLP Regulations, notably in the area of the law enforcement. Recorded compliance levels in Member States seem to show a worsening trend, which is likely due to: (i) enforcement authorities being more effective in detecting non-compliant products/companies, and (ii) more non-compliant products being put on the EU market.

In August 2021, the Commission published a measurable assessment of the enforcement¹¹³ of the two main EU Regulations on chemicals (the REACH Regulation and the CLP Regulation) using a set of indicators on different aspects of enforcement.

Responsibility for checking compliance with REACH in Bulgaria¹¹⁴ lies with:

- 15 regional inspectorates of environment and water
- 28 regional health inspectorates
- Executive agency 'General Labour Inspectorate'.

Bulgaria has fully implemented both REACH and CLP enforcement strategies¹¹⁵. Their priorities for enforcement are based on:

- Requirements set in REACH and CLP, and deadlines for their implementation
- Risks and consequences in cases of breaches

¹⁰⁹ European Commission, WISE Freshwater, 2021.

¹¹⁰ COM(2020) 667 final.

¹¹¹ REACH: OJ L 396, 30.12.2006, p.1. - CLP: OJ L 252, 31.12.2006, p.1 ¹¹² European Commission, Final Report, on the operation of REACH and CLP, Fi<u>nal report_REACH-CLP MS reporting_2020.pdf (europa.eu).</u>

¹¹³ European Commission, <u>REACH and CLP enforcement: EU level</u> <u>enforcement indicators</u>

¹¹⁴ Final report REACH-CLP MS reporting 2020.pdf (europa.eu), p. 68

¹¹⁵ Final report REACH-CLP MS reporting 2020.pdf (europa.eu), p. 76

• Available resources

As a rule, all infringements of REACH are classed as serious or very serious environmental administrative offences. If the infringement is sufficiently serious, the competent authority may decide to impose further penalties in addition to a fine. That authority may also, where necessary, order the provisional seizure of assets and documents.

In Bulgaria human and financial resources allocated to REACH and CLP enforcement are limited¹¹⁶. There were 2 577 REACH controls in 2019 and 266 CLP controls. Almost all controls carried out were proactive (inspections), compared with reactive/non-routine controls (i.e. investigations in response to complaints, accidents and referrals)¹¹⁷.

Figure 31: Percentage of non-compliance cases out of the total number of REACH and CLP controls during 2019 per Member State and compared to the EU average¹¹⁸



2022 priority actions

• Bulgaria should upgrade its implementation and enforcement administrative capacities towards a zero tolerance to non-compliances.

¹¹⁶ European Commission, Final Report, on the operationof REACH and CLP, <u>Final report_REACH-CLP_MS reporting_2020.pdf (europa.eu)</u>, p. 74. ¹¹⁷<u>Final report_REACH-CLP_MS reporting_2020.pdf (europa.eu)</u>, p. 87-88.

 $^{^{118}}$ European Commission, Final Report, on the operation of REACH and CLP, pp.87-88, 2022.

4. Climate Action

In line with the Paris Agreement and as part of the European Green Deal, the European Climate Law sets the EU target of reaching climate neutrality by 2050 and reducing greenhouse gas (GHG) emissions by 55% by 2030 compared to 1990. The law also limits the contribution that carbon removals can make towards emission reductions in 2030, to ensure a sufficient mitigation effort.

The EU and its Member States submitted updated Nationally Determined Contribution (NDC) to the UNFCCC in December 2020.

The EU is working across all sectors and policies to cut GHG emissions and make the transition to a climateneutral and sustainable economy, as well as addressing the unavoidable consequences of climate change.

EU climate legislation incentivises emissions reductions from power generation, industry, transport, the maritime sector and fluorinated gases (F-gases) used in products. For road transport, EU legislation requires the GHG intensity of vehicle fuels to be cut by 6% by 2020 compared to 2010¹¹⁹ and sets binding GHG emission standards for different vehicle categories¹²⁰.

Under the F-gas Regulation, the EU's F-gas emissions will be cut by two thirds by 2030 compared with 2014 levels. From 2021, emissions and removals of GHGs from landuse, land-use-change and forestry (LULUCF) have been included in the EU emission-reduction efforts.

The EU adaptation policy is an integral part of the European Green Deal. From 2021, Member States are required to report on their national adaptation policies¹²¹, as the EU Climate Law recognises adaptation as a key component of the long-term global response to climate change. Member States will be required to adopt national strategies, and the EU will regularly assess progress as part of its overall governance on climate action. The updated EU adaptation strategy, published in February 2021, sets out how the EU can adapt to the unavoidable impacts of climate change and become climate resilient by 2050.

Key national climate policies and strategies

Bulgaria adopted its integrated national energy and climate plan (NECP) for 2021-2030. Bulgaria's decarbonisation path to long-term climate neutrality is

still unclear. Bulgaria has not yet submmited its national long-term strategy under the Governance Regulation.

Bulgaria allocates 58.9% of its RRP's spending to climate objectives and outlines crucial reforms and investments to further the green transition (for more details see Chapter 5).

At the end of 2019, Bulgaria adopted its first climate change adaptation strategy and action plan until 2030. Bulgaria does not yet have a review and update of the measures taken under the strategy for vulnerability and risk assessments.

Between 1990 and 2020, total greenhouse gas emissions decreased by 50%. Bulgaria's greenhouse gas (GHG) emissions intensity (in terms of gross value added) decreased by over one fifth between 2015 and 2020, but is still around four times the EU average. Bulgaria remains the most energy- and greenhouse gas-intensive economy in the European Union and coal is still the main source of energy.

Figure 32: Total greenhouse gas emissions (incl. international aviation) in Bulgaria, 1990-2020



Effort sharing target

For emissions not covered by the EU's emissions trading scheme (ETS), Member States have binding national targets under the Effort Sharing legislation¹²². Bulgaria's target under the EU legislation is to not increase its emissions in non-ETS sectors (buildings, road and domestic maritime transport, agriculture, waste and small industries) by more than 20% by 2020 and by 0% by 2030 compared to 2005. The country's Effort Sharing emissions in 2019 were slightly above its 2020 target. The Bulgarian national energy and climate plan concludes on

¹¹⁹ The Fuel Quality Directive (Directive 98/70/EC) sets strict quality requirements for fuels used in road transport in the EU to protect human health and the environment, and to make road travel across the EU safer.

¹²⁰ Regulation (EU) 2019/631.

¹²¹ Article 29 of Regulation (EU) 2018/1999.

¹²² Regulation (EU) 2018/842

the basis of its projections that it will meet its 2030 non-ETS target with additional measures.

Figure 33: Emissions and targets under the Effort Sharing Decision/ Effort Sharing Regulation in Bulgaria, 2020 and 2030 as percentage change from 2005



Figure 34: Emissions, annual emission allocations (AEAs) and accumulated surplus/ deficit of AEAs under the Effort Sharing Decision in Bulgaria, 2013-2020



Key sectoral developments

In road transport, the GHG intensity of vehicle fuels in Bulgaria reduced by 3.3% from 2010 to 2019. Bulgaria needs to act swiftly to meet the reduction target of 6% by 2020. There are several types of action that Member States can take in this regard, for example: (i) further expanding the use of electricity in road transport (including deployment through of charging infrastructure); (ii) supporting the use of biofuels and advanced biofuels in particular; (iii) incentivising the development and deployment of renewable fuels of nonbiological origin; and (iv) reducing upstream emissions before refining processes.

Road transport in 2019 in Bulgaria represented 17% of the country's total greenhouse gas emissions. Road transport emissions increased by 35% between 2005 and 20019. The average age of Bulgaria's vehicle fleet is significantly higher than the EU average. The uptake of zero-emissions passenger cars in Bulgaria is low, as is the density of public charging points. Bulgaria has around 500 recharging points by 2021 (according to the European Alternative Fuels Observatory – EAFO). In the coming years, however, an increase in electric vehicles is expected in Bulgaria. In its recovery and resilience plan Bulgaria committed to installing 10 000 recharging points by 2026 to provide, among other things, for the necessary energy for travel. This would also contribute to significant progress towards achieving the necessary amount of infrastructure for electromobility. Bulgaria will encourage the use of electric and hybrid vehicles (currently incentivised by the application of a tax reduction, free parking or subsidies only for municipalities) in public and private transport. According to the NECP, every new building should be equipped with at least one charging station. Bulgaria also plans to diversify the use of renewable energy sources in the transport sector by introducing biofuels and hydrogen. GHG emissions in the sector can also be reduced by accelerating the introduction of modern technologies in railway transport (ERTMS) as well as in other modes of transport. The upgrade of current intelligent transport systems will continue in road transport. Regarding waterborne transport, the implementation of traffic management systems - river information system (RIS) and vessel traffic management information system (VTMIS) - will continue to be upgraded. The deployment of the single European sky air traffic management research (SESAR) programme is ongoing in air transport.

Figure 35: Greenhouse gas emissions by sector in Bulgaria¹²³ – historical emissions 1990-2020, projections 2021-2030¹²⁴

¹²³ The sectors in the figure correspond to the following IPCC sectors: Energy supply: 1A1, 1B and 1C. Energy use in manufacturing industries: 1A2. Industrial processes and product use: 2. Transport: 1A3. Other energy use: 1A4, 1A5 and 6. Agriculture: 3. Waste: 5. International aviation: 1.D.1.a.

¹²⁴ European Environmental Agency, <u>Total GHG trends and projections</u>.



On buildings, Bulgaria plans to take measures to improve the energy performance of at least 5% of the total gross floor area of all heated and cooled state-owned buildings used by the public administration. According to the 2020-2050 long-term strategy for renovation of the national building stock of residential and non-residential buildings, Bulgaria plans to renovate 60% of the building stock and approximately 17% of non-residential buildings by 2050. The expected energy saving is 7329 GWh per year.

On agriculture, emissions have increased significantly since 2005.

On land use LULUCF sector, Bulgaria's projection in the NECP indicates a stable level of net removals by 2030. Reported quantities under the Kyoto Protocol for the LULUCF sector in Bulgaria show net removals of, on average, -10.2 Mt CO2-eq for 2013 to 2019. In this regard, Bulgaria contributes with 2.9% to the annual average sink of -344.9 Mt CO2-eq of the EU-27. Accounting for the same period shows net credits of, on average, -2.2 Mt CO2-eq, which makes up 1.9% of the EU-27 accounted sink of -115.0 Mt CO2-eq. Reported net removals show minor variations with a slightly increasing trend overall; the same pattern is more accentuated for accounted net credits.

Figure 36: Reported and accounted emissions and removals from LULUCF in Bulgaria¹²⁵



Use of revenues from the auctioning of EU ETS allowances

The total revenues from the auctioning of emission allowances under the EU ETS over the years 2012-2021 were EUR 2.5 billion. In Bulgaria, nearly 98 % has been spent to climate and energy purposes. Unspent revenues are carried over to later years, therefore in some years spending is higher than the revenues (as it is the case in 2016 and 2017).

2022 priority actions

- Bulgaria should increase uptake of renewables, both in electricity production and in the heating and cooling sector.
- Bulgaria should enhance renovation of building stock.
- Bulgaria should implement additional measures and changes in land management practices.
- Bulgaria should implement reforms in regions with a carbon-intensive energy sector (coal regions).

¹²⁵ The differences between reported and accounted emissions from LULUCF under the Kyoto Protocol are described in the '*explanatory note* on LULUCF – accounted and reported quantities under the Kyoto Protocol'.

Part II: Enabling framework: Implementation tools

5. Financing

Environmental investment needs in the European Union

Financing environmental measures is essential for their success. Although most financing comes from national sources, various EU funds contribute significantly, helping to close the financing gap between countries. Post-2020, environmental measures will also be supported by the EU's COVID-19 Recovery Fund (via the Recovery and Resilience Facility) and the 'do no significant harm' principle, which runs across the EU budget. The renewed commitments made at COP26 (Glasgow, October-November 2021) and the Biodiversity Convention (April-May 2022)124 will also be reflected in the EU budget.¹²⁶

Overall environmental investment gaps (EU-27)

The EU's investment needs for the green transition cover a range of interlinked areas. The additional investment needs over the baselines (i.e. the gap between what is needed and what is forecast to be invested if no additional action is taken) for climate, energy and transport were estimated in 2021 at EUR 390 billion per year (EU-27)¹²⁷, with a further EUR 130 billion a year to deliver the EU's core environmental objectives¹²⁸. The costs of climate adaptation can also be significant, and are estimated to reach a total of EUR 35-62 billion (narrower scope) or EUR 158-EUR 518 billion (wider scope) per year¹²⁹. Those investment needs reflect the implementation objectives to 2020 and to 2030 (except for climate change adaptation, the costs of which are expected to last over a longer time horizon).

A preliminary update of the EU's core environmental investment gap is provided in Table 1^{130} . Almost 40% of

the environmental investment gap relate to dealing with pollution, which accounts for nearly two thirds of the total gap if combined with water management. The investment gap in circular economy and waste amounts to EUR 13-28 billion a year, depending on levels of circularity implemented. The annual biodiversity financing gap is estimated at around EUR 20 billion.

Table 1: Estimated breakdown of the EU'senvironmental investment gaps, by environmentalobjective, 2021-2030 per year¹³¹

Environmental	Estimated investment gap (EU-27, p.a.)		
objective	EUR billion	%	
Pollution prevention & control	42.8	39%	
Water management & industries	26.6	24%	
Circular economy & waste	13.0	12%	
Biodiversity & ecosystems ¹³²	21.5	20%	
R & D & I and other	6.2	6%	
Total	110.1	100%	

Environmental investment needs in Bulgaria

Air quality, water, urban wastewater, waste management and circular economy stand-out as major environmental investment needs in Bulgaria. Significant investment efforts are still needed in the following fields to support the implementation of EU environmental legislation.

¹²⁶ The Convention on Biological Diversity (cbd.int); Post-2020 Global Biodiversity Framework | IUCN.

 $^{^{\}rm 127}$ SWD (2021) 621, accompanying proposal COM(2021) 557 to amend the REDII Directive (EU) 2018/2001.

¹²⁸ SWD(2020) 98 final/2.

¹²⁹ SWD(2018)292, Impact assessment accompanying the LIFE Regulation.

¹³⁰ With decreases due to Brexit and some reconciliation among the objectives. DG ENV 'Study supporting EU green investment needs analysis' (ongoing, 2021-2023) and DG ENV internal analysis 'Environmental Investment needs and financing in the EU's green transition', July 2020.

¹³¹ European Commission, DG Environment, "Study supporting EU green investment needs analysis" (ongoing, 2021-2023) and DG Environment internal analysis "Environmental Investment needs and financing in the EU's green transition", July 2020.

¹³² To meet the needs of the 2030 Biodiversity Strategy (Natura 2000, green infrastructure), at least EUR 20 billion a year should be unlocked for nature (COM/2020/380 final) while to fully cover the strategy (including restoration) EUR 30-35 billion may be needed, indicating a gap of EUR 10-20 billion a year compared to current baseline expenditure.

Pollution prevention & control

The EU's first Clean Air Outlook¹³³ under the clean air programme estimated that to reach the emission reduction requirements¹³⁴ in the NECD by 2030EUR 908 million a year would be required, including EUR 682 million a year for capital investment (assuming the achievement of the 2030 climate and energy targets).

The second Clean Air Outlook¹³⁵ suggests that the EU would largely achieve the reductions of air pollutant emissions that correspond to the obligations under the NEC Directive for 2030 if: (i) all relevant legislation adopted up to 2018 is implemented (including all air pollution legislation and the 2030 climate and energy targets set in 2018); and (ii) Member States also implemented the measures announced in their national air-pollution control programmes¹³⁶. The only exception is for ammonia (NH₃) for 15 Member States, including Bulgaria¹³⁷.

Water management

According to an OECD study on financing a water secure future (2022)¹³⁸, access to sanitation services remains low, with only 66% of the population connected to a wastewater collection system and only 50% to a wastewater treatment plant. Investment is needed in water and sanitation infrastructure, as most of it was built in the 1960s and 1970s and needs to be rehabilitated, extended and repaired. EU funding has provided a significant share of past public funding over the past decade. It is estimated that Bulgaria will need to invest an additional cumulative EUR 2.3 billion by 2030 for drinking water and sanitation (beyond the baseline investments) - corresponding to around 230 million additional investment need (capital expenditure) per annum, with around 93% of that relating to wastewater ¹³⁹. Moreover, the recent 6th Water Framework Directive and Floods Directive Implementation Report¹⁴⁰ and the financial - economic study¹⁴¹ accompanying it, are also a relevant source of information in this domain.

Waste & circular economy

According to a Commission study¹⁴² to meet the recycling targets for municipal waste and packaging waste, Bulgaria still needs to invest an additional EUR 113 million (around 16 million per year) between 2020-2027 (beyond the baseline investments).

These investments will need to cover: waste collection; recycling reprocessors; biowaste treatment; waste sorting facilities; and digitalisation of the waste registry. This does not include investment necessary in other key waste streams (plastics, textiles, furniture) or the inevestment needed to increase circularity and waste prevention across the economy.

Biodiversity & ecosystems

The recently submitted priority action framework (PAF) for Bulgaria shows that existing nature protection costs (including Natura 2000) in 2021-2027 are estimated at EUR 716.1 million. This represents an annual cost of about EUR 102.3 million, of which EUR 24.5 million are on- off costs¹⁴³.

This excludes additional costs to implement the biodiversity strategy up to 2030, including on increased protection and restoration.

EU environmental funding 2014-2020

The MFF for 2014-2020 allocated almost EUR 960 billion (in commitments, 2011 prices)¹⁴⁴ for the EU to spend over this period. The commitment in this 2014-2020 MMF to the green transition included a 20% climate spending target. It also included funding opportunities for the environment, in particular under the European Structural and Investment (ESI) Funds¹⁴⁵. The 2014-2020

¹³³ International Institute for Applied Systems Analysis (IIASA), <u>Progress</u> towards the achievement of the EU's air quality and emissions objectives, 2018.

¹³⁴ Covering the reductions of and the emission ceilings for 5 atmospheric pollutants, SOx, NOx, PM2.5, NH3 and VOC by 2030, compared to 2005. Requirements are based on <u>Directive (EU)</u> 2016/2284.

¹³⁵ COM(2021) 3 Final and Report Annex.

 $^{^{\}rm 136}$ COM(2021) 3 final. International Institute for Applied Systems Analysis (IIASA), Support to the development of the Second Clean Air Outlook, 2020 and Annex.

 ¹³⁷ Nevertheless, the NECD also foresees deliveries by 2020 and 2025.
 Communication <u>Second Clean Air Outlook</u>; <u>Annex.</u>

¹³⁸ OECD, <u>Financing a Water Secure Future</u>, 2022.

¹³⁹ OECD, <u>Bulgaria - Country fact sheet- Financing Water Supply,</u> <u>Sanitation and Flood Protection</u>.

¹⁴⁰ WFD and FD Implementation Reports – DG Environment – European Commission.

¹⁴¹ European Commission, Directorate-General for Environment, <u>Economic data related to the implementation of the WFD</u> and the FD and the financing of measures, Final report. Publications Office. 2021.

¹⁴² European Commision, <u>Study on investment needs in the waste</u> <u>sector and on the financing of municipal waste management in Member</u> States, 2019.

¹⁴³ The N2K Group, Strengthening investments in Natura 2000 and improving synergies with EU funding instruments report to the European Commission, 2021.

¹⁴⁴ Council Regulation (EU, Euratom) No 1311/2013.

¹⁴⁵ The European Structural and Investment (ESI) Funds include the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF) with the Youth Employment Initiative

MFF budget was subsequently topped up with over EUR 50 billion (in current prices) from the REACT-EU programme for cohesion-policy action against COVID-19¹⁴⁶.

Bulgaria received EUR 11 047.7 million from the ESI Funds in 2014-2020 to invest in job creation and a sustainable and healthy European economy and environment. Of this EUR 11 047.7 million, the planned direct environmental investment amounted to EUR 1 667.5 million with a further EUR 697.4 million identified as indirect environmental investment value, totalling EUR 2 635 million. Figure 38 gives an overview of (planned) individual ESI Funds earmarked for Bulgaria (EU amounts, without national amounts) for 2014-2020 and the environmental investments included.

Figure 37: ESI Funds allocated to Bulgaria, including environmental investments, 2014-2020¹⁴⁷



Bulgaria has spent less than one third (EUR 505 million) of the allocated EUR 1 667.5 million. Most of the funds were spent on water management – EUR 285.7 million. Bulgaria spent EUR 49 million on waste management;

(YEI), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF).

¹⁴⁷ European Commission, DG Environment - Data analysis based on ESI Funds Open Data Portal (cohesiondata.ec.europa.eu), Integration of environmental concerns in Cohesion Policy Funds (COWI, 2017), Regulation (EU) No 1303/2013,Regulation (EU) 2021/1060 and Implementing Regulation (EU) No 215/2014. Environmental investments here are captured via the combined use of intervention fields and coefficients under the Regulation (EU) No 1303/2013 and Regulation (EU) 2021/1060 allowing for a more precise identification and valuation of relevant environmental investments. N.B. Indirect environmental investments are valued using the Annex I environmental coefficients of the Regulation (EU) 2021/1060 (as opposed to full value). EUR 16.2 million on air quality, EUR 55 million on biodiversity and nature, and EUR 60.9 million on climate mitigation and adaptation and risk management. All were far below the planned allocations. On land rehabilitation Bulgaria spent EUR 38.1 million, which was slightly above the originally allocated sum.

Instrument	Allocations for the environment (EUR million)
Under cohesion policy (ERDF + CF)	2 158.4
Direct environmental investments	<u>1 538</u>
water	801.0
waste	197.2
air quality	250.8
biodiversity and nature	125.0
land rehabilitation	37.8
climate and risk management	126.2
Indirect environmental investments	<u>620.4</u>
energy efficiency	136.1
sustainable transport	461.0
business development, R&I	23.3
Under EAFRD/rural development	184.9
Direct environmental investments	<u>108.3</u>
water	45.6
climate and risk management	62.7
Indirect environmental investments	<u>76.6</u>
renewable energy	31.9
energy efficiency	44.7
Under EMFF	21.6
Direct environmental investments	<u>21.2</u>
environment protection & resource efficiency	21.2
Indirect environmental investments	0.4
business development, R&I	0.4
Under ESI Funds total	2 365.0
Direct environmental investments	1 667.5
Indirect environmental investments	697.4

Table 2: Direct and indirect environmental investmentsunder the ESI Funds in Bulgaria, 2014-2020148

Funding for the environment from the ESI Funds has been supplemented by other EU funding programmes available to all Member States, such as the LIFE

¹⁴⁶ Regulation (EU) 2020/2221.

¹⁴⁸ European Commission, DG Environment - Data analysis. The values of environmental investments identified here in the specific environmental areas may differ from the tracking values at cohesiondata.ec.europa.eu, e.g. for clean air or biodiversity due to two factors: the set of environmental coefficients used and the range of funds assessed. DG Environment's analysis here covered the full range of ESI Funds. See also previous footnote.

programme, Horizon 2020 or loans from the European Investment Bank (EIB), that add up to an estimated total of EUR 2.7 billion for Bulgaria in 2014-2020.

The LIFE programme¹⁴⁹ is entirely dedicated to environmental and climate objectives. It finances demonstration and best practice actions for green solutions to be deployed. In 2014-2020, Bulgaria received EU support for 20 LIFE projects with EUR 44.0 million from the LIFE programme for nature and environment (out of 1 028 LIFE projects across the EU27 with a total EU contribution of EUR 1.74 billion)¹⁵⁰.

In 2014-2020, Horizon 2020 allocated about EUR 5.8 million to Bulgaria for the environment, in particular for natural resources and ecosystems and raw materials; the sum represented 3.6% of Bulgaria's total allocation¹⁵¹. From the European Fund for Strategic Investments (EFSI), Bulgaria received a total of EUR 358 million financing. Of this, EUR 65 million was for environmental projects¹⁵². Environment-related EIB loans to Bulgaria amounted to EUR 237 million (supporting both water and waste), out of overall EIB lending to Bulgaria of EUR 1 820 million in the period^{153, 154}. The country ranks 21st for size of total EIB lending in 2014-2020.

In 2020, the EIB provided EUR 24.2 billion in funding across Europe to fight climate change, 37% of its total financing. It also provided EUR 1.8 billion (3% of its financing) for broader environmental lending^{155,}

EU environmental funding 2021-2027

The 2020 European Green Deal investment plan calls for EUR 1 trillion in green investments (public and private) to be made across the EU by 2030. The 2021-2027 MFF and the NextGenerationEU spending programme will mobilise EUR 2.018 trillion (in current prices) to support the recovery from COVID-19 and the EU's long-term

priorities, including environmental protection¹⁵⁶. Following the EU Green Deal's¹⁵⁷ pledge to 'do no harm' and the Interinstitutional Agreement on the 2021-2027 MFF¹⁵⁸, 30% of the EU budget in 2021-2027 will support climate efforts, while biodiversity will receive 7.5% of the EU budget as of 2024 and 10% as of 2026 that requires increased programming of financial resources for biodiversity, specifically under the 2021-2027 Cohesion policy and the 2023-2027 CAP to reach those targets.

Sustainable finance significantly increases transparency on environmental sustainability (a goal promoted by the EU Taxonomy)¹⁵⁹. It also strengthens non-financial reporting requirements and facilitates the issuance of green bonds (by developing the EU Green Bond Standard)¹⁶⁰. Reinforced by the renewed sustainablefinance strategy (2020)¹⁶¹, sustainable finance will increase investment flows to climate and the environment. The new strategy on adaptation to climate change¹⁶² can help to close the insurance-protection gap, which currently leaves many risks from climate-related events uninsured¹⁶³. The EIB will align 50% of its lending for climate and environment projects by 2025¹⁶⁴, with a EUR 250 billion contribution to the Green Deal investment plan by 2027.

Table 3: Key EU funds allocated to Bulgaria (current prices), 2021-2027

Instrument	Allocations (million EUR)
Cohesion policy	9 768.4 ¹⁶⁵
ERDF	5 741.5
CF	1 266.2 ¹⁶⁶
ESF+	2 625.2
ETC (ERDF)	135.5 ¹⁶⁷

¹⁵⁶ European Commission, <u>2021-2027 long-term EU budget &</u> <u>NextGenerationEU</u>.

¹⁵⁹ https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en.

¹⁴⁹ European Commission, LIFE Programme.

¹⁵⁰ LIFE Country overview Bulgaria 2020 (europa.eu).

¹⁵¹ Source: <u>https://sc5.easme-web.eu/</u>, accessed: 15-12-2021.

¹⁵² Approved and signed EFSI financing - EIB, 2015-2020: Source: https://www.eib.org/en/products/mandates-

partnerships/efsi/index.htm.

¹⁵³ EIB loans in EU countries in 2014-2020. Source: EIB Open Data Portal: https://www.eib.org/en/infocentre/eib-open-data.htm.

¹⁵⁴ EIB Activity Report 2021.

¹⁵⁵ The EIB Group jointly works with the European Commission in implementing several programs that finance environmental implementation: InvestEU, the successor of EFSI, Pillar II and III of the Just Transition Mechanism. The EIB Group stands as a key implementing partner for InvestEU with responsibility for managing 75% of the overall budgetary capacity of the mandate.

¹⁵⁷ COM/2019/640 final.

¹⁵⁸ Interinstitutional Agreement, OJ L 433I.

¹⁶⁰ <u>EU Green Bond Standard</u> - 2021/0191 (COD).

¹⁶¹ COM (2021) 390 Final - European Commission, Strategy for Financing the Transition to a Sustainable Economy.

¹⁶² COM(2021) 82 final.

¹⁶³ The strategy would support improved insurance gap coverage including through the natural catastrophe markets as reflected with the EIOPA (the Association for European Insurance and Occupational Pension Authorities) dashboard on insurance protection gap for natural catastrophes. See: <u>The pilot dashboard on insurance protection gap for</u> natural catastrophes | Eiopa (europa.eu).

¹⁶⁴ EIB Climate Bank Roadmap 2021-2025, November 2020.

¹⁶⁵ European Commission, <u>2021-2027 Cohesion policy EU budget</u> <u>allocations</u>.

¹⁶⁶ The transfer to the Connecting Europe Facility (Transport) is not included.

¹⁶⁷ Interreg initial allocations per MS including ETC transnational and ETC cross-border cooperation.

Just Transition Fund	1 295.1 ¹⁶⁸
EAFRD/rural development under CAP strategic plans 2023- 2027 ¹⁶⁹	1 410.8 ¹⁷⁰
European Maritime, Fisheries and Aquaculture Fund (EMFAF)	EUR 84.9 ¹⁷¹
RRF 2021 – 2026 ¹⁷²	Total: EUR 6 267 ¹⁷³ (grants)

In Bulgaria, the programming for most EU funds (cohesion policy funds, EAFRD and the European Maritime, Fisheries and Aquaculture Fund) is ongoing.

In the course of the programming exercise for 2021-2027 in Bulgaria, estimations based on draft programmes show that the European Regional Development Fund's contribution to the EU climate target should reach 30.2% or EUR 1 733 million. The contribution of the Cohesion Fund should reach EUR 616 million or 51.5% of the total allocation from this Fund for the Member State.

However, the negotiations have been concluded under the RRF. Its main outcomes, especially as regards its environmental dimension, are summarised below.

The plan will support the green transition, in particular the climate change dimension but also dedicated environmental measures addressing biodiversity, water supply and sewerage, sustainable agriculture as well as circular economy (at company level) and air quality (through clean transport measures and energy efficiency of buildings), totalling to far above the minimum of 37% of a climate target to reach 58.9% (approximately EUR 3.7 billion).

The RRP is structured around twelve components grouped in four policy pillars: 'Innovative Bulgaria'; 'Green Bulgaria'; 'Connected Bulgaria'; and 'Fair Bulgaria'. Eight out of the twelve components include expenditure that contributes to climate objectives, most notably the low-carbon economy, sustainable transport and smart industry. Most of the components contribute to climate objectives, including environmental ones.

The plan includes a set of interrelated and reinforcing investments enhanced by a water sector reform, all of which are aimed at modernising water resource management and making it more sustainable. The water sector reform is expected to optimise the regulatory framework for water supply and sewerage services. It consists of the adoption of a new law, the Water Supply and Sewerage Act, which aims to provide the conditions for consolidation in the provision of water supply and sewerage services and introducing uniform conditions for service quality and efficiency criteria to be met by the water supply and sewerage operators. The new legislation is expected to refine the tariff setting mechanisms, ensuring cost-based pricing for the use of the systems and the consumed services while also ensuring financial sustainability of the operators. The water management investments included in the plan consist of the construction, reconstruction and modernisation of water supply and sewerage systems, and drinking and wastewater treatment plants, as well as the digitalisation of water management and improving the control of water use.

The main risks to biodiversity in Bulgaria are the loss of habitats and the degradation of ecosystems as a result of urban and infrastructure development, unsustainable agriculture and the exploitation of species of economic importance. The RRP includes a dedicated component aiming at protecting and restoring ecosystems and natural habitats and species of European and national importance. The reforms and investments in this component are expected to contribute to building effective Natura 2000 management structures in Bulgaria, and to restoring climate-related ecosystems and protecting biodiversity.

The plan also includes measures to enhance the sustainable management and competitiveness of the Bulgarian agricultural sector as part of the green transition. The plan includes a national action programme, which is expected to set out a framework for the management and protection of the environment and natural resources in the field of agriculture. The plan also includes dedicated investments that consist of setting up a Fund for promoting the technological and ecological transition of the Bulgarian agricultural sector.

The plan includes reforms and investments to support deployment of renewable electricity generation (by 2026, 3.5 GW of wind or solar collocated with (30%) storage; 10 MW of geothermal electricity generation capacity and 500 MW large-scale electricity storage with 6,000 MWh discharge over 12h should be commissioned and connected to the grid) and a dedicated measure to support the development of pilot projects enabling the introduction of green hydrogen and biogas for industrial applications, as well as for their future use in transport and for the production of electricity and heat.

It includes significant investment in energy renovation of buildings. The investments will finance energy renovations of residential and public/private buildings, street lightning and renewables for households not

¹⁶⁸ European Commission, <u>2021-2027 Cohesion policy EU budget</u> <u>allocations</u>.

¹⁶⁹ European Commission, <u>CAP strategic plans</u>.

¹⁷⁰ Regulation (EU) 2021/2115, Annex XI.

¹⁷¹ <u>Regulation (EU) 2021/1139</u>, Annex V.

¹⁷² The actual reforms and investments under the RRF have to be implemented until 31 December 2026.

¹⁷³ Council Implementing Decision

connected to natural gas and/or heat transmission networks. The measures are expected to deliver at least 30% reduction of energy needs and lead primary energy savings of 1.1 TWh/year.

The RRP addresses road decarbonisation through measures such as the promotion of electric car mobility, with 10 000 charging stations – including fast-charging stations – to be built across Bulgaria. Its aims include new zero-emission and low-emission vehicles to reach a total of 30 000 by mid-2026; new electric rolling stock for suburban and interregional rail transport; the construction of a 3km new section of Sofia metro; and a sustainable urban mobility pilot scheme with purchase of zero-emission public transport vehicles and charging station infrastructure.



Figure 38: Climate expenditure in RRP, 2021-2026¹⁷⁴

Under NextGenerationEU, the Commission will issue up to EUR 250 billion of EU green bonds (one third of all bonds issued under NextGenerationEU) until 2026 that will comply with the general spirit of the 'do no significant harm' principle. However, this EUR 250 billion in green bonds will not be subject to the currently developed delegated acts related to the EU Taxonomy and will not fully align with the proposed EU standards for green bonds.

In addition to EU funds earmarked specifically for Bulgaria in the 2021-2027 period, there are also funding programmes that can be accessed at EU level and which are open to all member states on competitive basis. These include, among others, the LIFE programme (EUR 5.4 billion), Horizon Europe (EUR 95.5 billion)¹⁷⁵, the

Connecting Europe Facility (EUR 33.7 billion)¹⁷⁶ or the funds to be mobilised via the InvestEU¹⁷⁷. They will also support the green transition, including research and innovation activities for environmental protection (Horizon Europe)¹⁷⁸, clean transport and energy (the Connecting Europe Facility)¹⁷⁹ or sustainable infrastructure (InvestEU)¹⁸⁰.

National environmental financing

Total national environmental protection expenditure (including all relevant current and capital expenditure)¹⁸¹ in the EU-27 was EUR 272.6 billion in 2020, representing 2% of the common GDP being quite stable over time. While absolute expenditure is concentrated in a few countries, as a share of GDP, most countries spend between 1-2%, with Bulgaria spending 1.3%.

Of the above total, the EU-27's capital expenditure (Capex) on environmental protection (i.e. investment) amounted to EUR 56.3 billion in 2018, lowering to EUR 54.5 billion in 2020, representing around 0.4% of GDP. Most Member States invested 0.2-0.5% of their GDP in environmental protection, with Bulgaria belonging to the higher end (0.5%). During 2014-2020, this totalled to around EUR 376 billion of environmental investment in the EU-27, and to a little under EUR 3.6 billion for Bulgaria.

¹⁷⁴ European Commission. <u>The contributions to climate objectives have</u> been calculated using Annex VI of the RRF Regulation (EU) 2021/241.

¹⁷⁵ European Commission, <u>Multiannual Financial Framework 2021-2027</u> (in commitments) - Current prices.

¹⁷⁶ Regulation (EU) 2021/1153.

¹⁷⁷ The InvestEU Fund is foreseen 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 European Investment Bank (EIB) Group and others.

¹⁷⁸ European Commission, <u>Horizon Europe</u>.

¹⁷⁹ European Commission, Connecting Europe Facility.

¹⁸⁰ European Union, InvestEU.

¹⁸¹ At economy level, including final consumption, intermediate consumption and capital expenditure of households, corporations and governments related to environmental protection goods and services. It excludes EU funds, while may include some international expenditure beyond domestic. Data source: Environmental Protection Expenditure Accounts (EPEA), Eurostat. EPEA accounts are based on the <u>CEPA 2000</u> classification, excluding climate, energy and circular economy.



Figure 39: Environmental protection investments in the EU-27 (EUR million and % of GDP), 2018¹⁸²

By institutional sector, over 60% of Bulgaria's environmental protection investments (capital expenditure) came from the general government, a third from the business sector and almost 6% from specialist producers (of environmental protection services, e.g. waste and water companies). At EU level, 37% comes from governments, 33% from specialist producers and 30% from industry (business).

Figure 40: EU-27 Member States' environmental protection investments (Capex) by institutional sectors (Total economy = 100%), 2018¹⁸³



General government

Breakdown of investment by environmental topic is partially available, but only at the level of institutional sectors (rather than at economy level), due to different reporting patterns across the sectors.¹⁸⁴ At Bulgaria's general government level, 70% of environmental protection investments went to wastewater and a quarter to waste management. For Bulgaria's specialist producers of environmental protection services, an overwhelming share (over 90%) of relevant investments were received by waste management. As regards the business sector, 55% of environmental protection investments went on protection of air, 19% on wastewater and 10% on waste management.

In 2020, the total issuance of green bond¹⁸⁵ by European countries (including some non-EU countries) was USD 156 billion (EUR 137 billion), up from USD 117 billion (EUR 105 billion) in 2019¹⁸⁶. For EU-27 Member States,

https://www.climatebonds.net/standard/taxonomy. USD value is converted via Eurostat's annual average EUR/USD exchange rates.

¹⁸² Eurostat, Environmental Protection Expenditure Account, 2021.

¹⁸³ Eurostat, Environmental Protection Expenditure Accounts (env_epe).
¹⁸⁴ Data reporting differs for the three institutional sectors, leading to aggregation difficulties. Specialist companies provide comprehensive data across all environmental areas (CEPA 1-9), although this is less the case for general government and industry, which often report (the non-obligatory) data in merged categories only (because it is difficult to disaggregate these data) or not at all.

¹⁸⁵ Green bonds were created to fund projects that have positive environmental and/or climate benefits. Most green bonds issued are green 'use of proceeds' or asset-linked bonds. The very first green bond was issued in 2007 with an AAA-rated issuance from multilateral institutions, the European Investment Bank (EIB) and the World Bank. ¹⁸⁶Climate Bonds Taxonomy:

green bond issuance in 2020 was EUR 124 billion. Bulgaria did not issue green bonds in 2020. In 2014-2020, 83% of the green bonds issued by European countries served objectives in energy, buildings or transport, while 8% supported objectives in water and waste, with a further 6% supporting sustainable land use – with links to ecosystem conservation and restoration¹⁸⁷.

Figure 41: Annual EU green bond issuance in 2020 (EUR billion)¹⁸⁸



Green budget tools

Green taxation and environmental tax reform

Representing 3.03% of its GDP, Bulgaria's revenue from environmentally relevant taxes in 2020 is well above the EU average of 2.24% although in absolute figures it remains among the lowest (with EUR 1859.1 million), as shown in the Figure 43. The largest portion of the environmental taxes were the energy taxes with a share of 88.3% in 2020 (2.68% of the GDP, well above the EU average of 1.74%), while transport tax represents 10.2% (0.31% of the GDP, EU average 0.42%) and pollution/resources tax accounts for 1.4% (0.04% of the GDP, EU average 0.08%)¹⁸⁹.

Bulgaria allocates more than the EU average on fossil-fuel subsidies — and higher than renewable-energy subsidies¹⁹⁰.





The 2019 European Green Deal underlines that welldesigned tax reforms can boost economic growth and resilience, foster a fairer society and promote a just transition. Tax reforms can contribute to sending the right price signals and incentives to economic players. The Green Deal creates the context for broad-based tax reforms, the removal of fossil fuel subsidies, and a shift in the tax burden from labour to pollution. It achieves this while simultaneously taking into account social considerations¹⁹². The Green Deal promotes the 'polluter pays principle' (PPP)¹⁹³, which stipulates that polluters should bear the cost of measures to prevent, control and remedy pollution; it is not fully ensured in Bulgaria. The polluter-pays principle is facilitated by the European Commission's Technical Support Instrument (TSI) project on greening taxes¹⁹⁴. Bulgaria applies economic instruments such as water consumption charges, but does not make use of pay-as-you-throw schemes¹⁹⁵.

Environmentally-harmful subsidies

Addressing and removing environmentally-harmful subsidies (EHS) is a further step towards wider fiscal

¹⁸⁷ Interactive Data Platform at <u>www.climatebonds.net</u>. Climate Bonds Taxonomy is similar to the EU Taxonomy.

¹⁸⁸ <u>Climate Bonds Initiative</u>, 2022.

¹⁸⁹ Eurostat, Environmental Taxes.

¹⁹⁰ European Court of Auditors, <u>Energy taxation, carbon pricing and</u> <u>energy subsidies</u>, 2022.

¹⁹¹ Eurostat, Environmental taxes accounts (env_eta).

¹⁹² COM (2019/640 final), p. 17.

¹⁹³ Enshrined in Article 191(2) of the Treaty on the Functioning of the European Union: 'Union policy on the environment (...) shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay'.

¹⁹⁴ European Commission, <u>Greening taxes- applying polluter pays</u> principle in practice, green budgeting TSI participation.

¹⁹⁵ European Commission, <u>Green taxation and other economic</u> <u>instruments</u>, 2021.

reforms¹⁹⁶. Fossil fuel subsidies are costly for public budgets and make it difficult to achieve the Green Deal objectives. In many cases the subsidies also counteract incentives for green investments, not contributing to levelling the playing field. Annual fossil fuel subsidies have been around EUR 55 billion in the EU since 2015. They rose by 4% between 2015 and 2019, although some countries (such as Latvia, Lithuania Sweden, Greece or Ireland) managed to decrease them in this period. In the EU, subsidies for petroleum products in sectors such as transport and agriculture continued to increase in 2015-2019. However, subsidies for coal and lignite decreased, largely due to the diminishing role of solid fuels in electricity generation. As a share of GDP, fossil fuel subsidies ranged from 1.2% in Hungary to less than 0.1% in Malta in 2019 (with an EU average of 0.4%). Fossil fuel subsidies amounted to EUR 0.6 billion in Bulgaria in 2019, reaching almost 1% of GDP – more than double the EU average.

In 2020, the EU-27's total fossil fuel subsidies decreased to EUR 52 billion (due to falling consumption trends amid the COVID-19-related restrictions). Without Member State actions, these subsidies are likely to rebound as economic activity picks up from 2020¹⁹⁷.

Figure 43: Trends in natural gas and electricity subsidies in Bulgaria¹⁹⁸



¹⁹⁶ European Commission, <u>Study on assessing the environmental fiscal</u> reform potential for the EU 28, 2016.

al gas

Current green budgeting practices

Green budgeting encompasses various climate and environmental tagging and tracking practices in budgets and some EU Member states already use green budgeting elements.¹⁹⁹ Green budgeting helps identify and track green expenditure and green revenues to increase transparency on the environmental impliacatitons of budgetary policies, improving policy coherence and supporting green policies (including climate end environmental objectives)²⁰⁰.

EU climate proofing and sustainability proofing guidance have also been developed, as tools to assess project eligibility and compliance with environmental legislation and criteria.²⁰¹ The EU Commission established a green budgeting reference framework²⁰² and launched a technical support project (TSI) on green budgeting in 2021 to assist Member States in developing or further developing national green budgeting frameworks to improve policy coherence and support the green transition. Bulgaria's participation in the EU Commission's green budgeting project started in 2021.

Overall financing compared to the needs

The EU's overall environmental financing for investments is estimated to have been 0.6-0.7% of GDP in the 2014-2020 period, taking into account major EU funds and national financing. This ranged from 0.3% (Ireland) to 1.91% (Bulgaria), linked to the level of individual environmental challenges in Member States. In the 2021-2027 period, the EU's environmental investment needs are estimated to range between 0.9-1.5% of the projected GDP (2021-2027), suggesting a potential environmental financing gap of 0.6-0.8% of the EU GDP, compared to previous financing levels.²⁰³

¹⁹⁷ See <u>table on EU FFS data in 2019</u> which is based on (for info) <u>COM(2021) 950</u> and <u>Annex.</u>

¹⁹⁸ OECD, <u>Fossil fuel subsidy tracker</u>.

¹⁹⁹ European Commission, <u>Green budgeting practices in the EU: A First</u> <u>Review</u>, 2021.

²⁰⁰ European Commission, <u>European Commission green budgeting</u> reference framework. European Commission, <u>Green budgeting in the</u> EU Key insights from the 2021 Commission survey.

²⁰¹ European Commission, <u>Technical guidance on sustainability proofing</u> for the InvestEU Fund.

²⁰² European Commission, Green budgeting reference framework, based on the review of the OECD Paris Collaborative on Green Budgeting initiative, 2017.

²⁰³ Source: DG Environment data analysis. EU financing sources covered: ESI Funds (ERDF, CF, ESF, YEI, EAFRD, EMFF), Horizon 2020, LIFE, EFSI (EU amount), EIB loans. National financing: total national environmental protection capital expenditure (investments) - source: Eurostat EPEA dataset. Cut-off date for data: end 2021. N.B. The total financing may

2.5% 2.0% 1.5% 1.0% 0.5% 0.0% lands Franc bou. Latvi Malt Croat olar ithuar Bu Ē Vari National environmental financing 127 2 EU environmental financing Ы - Environmental investment needs (available at Member State level)

Figure 44: Total environmental financing baseline (2014-2020) and estimated needs (2020-2030) in the EU27 (% of GDP)²⁰⁴

needs across the environmental objectives by closing the investment gaps.

environmental Bulgaria's overall financing for investments came to an estimated 1.91% of GDP in 2014-2020, with a dominance of national financing (62%) over EU funds. In 2021-2027, the country's environmental investment needs are also high, estimated to reach 2.98% of Bulgaria's GDP (with partial data, available at country level), suggesting an environmental financing gap of at least 1.07% of GDP, likely to be higher when also accounting for needs estimated at EU level (e.g. water protection, circularity, biodiversity etc.) -to be addressed through mobilising further financing sources to back environmental implementation priorities.

In the 2019 EIR, Bulgaria had no priority actions for environmental financing. However, there is room for improvement in the next years.

2022 priority actions

- Bulgaria should devise an environmental financing strategy to maximise opportunities for closing environmental implementation gaps, bringing together all relevant administrative levels, potentially increasing the share of EU funds as well as of private financing sources (that are currently around 30%).
- Bulgaria should ensure an increased level of financing for the environment to cover the high investment

be higher, in particular through further indirect investments, requiring further analysis in the future.

²⁰⁴ Eurostat, ESI Funds Open Data, 2021.

6. Environmental governance

Information, public participation and access to justice

Citizens can more effectively protect the environment if they can rely on the three 'pillars' of the Aarhus Convention:

(i) access to information;

(ii) public participation in decision making;

(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 effectively²⁰⁵. 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 environment²⁰⁶. It includes the right to bring legal challenges ('legal standing')²⁰⁷.

Environmental information

This section focuses on Bulgaria's implementation of the INSPIRE Directive. The INSPIRE Directive aims at establishing a European spatial data infrastructure for sharing environmental spatial information between public authorities across Europe, assisting in policymaking across boundaries and facilitating public access to this information. Geographic information is needed for good governance at all levels and should be readily and transparently available.

As part of a general compliance promotion exercise on the accessibility of priority data sets for reporting, a letter of formal notice was send to Bulgaria. Bulgaria has responded to the formal notice with a steadily improving implementation. Nevertheless, Bulgaria's implementation of the INSPIRE Directive could be better. Its performance has been reviewed based on the country's 2021 country fiche²⁰⁸. Data identification and documentation have made good progress, and implementation levels have improved. However, more efforts are needed²⁰⁹.

Table 4: Country dashboard on the implementation of the INSPIRE Directive, 2016-2020²¹⁰

	201 6	2020	Legend	
Effective coordinationsharing	on and	and data	Implementation of this provision is well	
Ensure effective coordination	•		advanced or (nearly) completed. Outstanding issues are minor and can	
Data sharing without obstacle	•	•	be addressed easily. Percentage: >89%	
INSPIRE performance	indicat	tors	Implementation of this provision has started	
i. Conformity of metadata	•	•	and made some o substantial progress bu is still not close to be complete. Percentage 31–89%	
ii. Conformity of spatial data sets ²¹¹	•	•		
iii. Accessibility of spatial data sets through view and download services		•	Implementation of this provision is fallin significantly behind Serious efforts ar necessary to clos implementation gap Percentage: <31%	
iv. Conformity of network services				

Public Participation

Publication of the initiation of Environmental Impact Assessment (EIA) and Strategic Environmental

²⁰⁵ The Aarhus Convention, the Access to Environmental Information Directive (Directive 2003/4/EC) and the INSPIRE Directive (Directive 2007/2/EC) together create a legal foundation for the sharing of environmental information between public authorities and with the public. This EIR focuses on the INSPIRE Directive's implementation.

²⁰⁶ These guarantees are explained in the Commission Notice on access to justice in environmental matters, OJL 275, 18.8.2017 and a related Citizen's Guide.

²⁰⁷ This EIR focuses on the means implemented by Member States to guarantee rights of access to justice, legal standing and to overcome other major barriers to bringing cases on nature and air pollution.

 ²⁰⁸ <u>https://inspire.ec.europa.eu/INSPIRE-in-your-Country/BG.</u>
 ²⁰⁹European Commission, <u>List of high value spatial data sets.</u>
 ²¹⁰ INSPIRE <u>knowledge base</u>, 2021.

²¹¹ 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.

Assessment (SEA)²¹² procedures and the possibility for the public to submit views regarding plans or projects which require an EIA or SEA 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) have well-developed and updated information on SEA/EIA procedures on their websites. The information published covers notifications for investment proposals (planned projects), information to assess the need of an EIA or SEA, information for forthcoming public consultations on EIA reports (and the EIA report itself) or EA consultations, EIA decisions (or refusals), SEA opinions (or refusals), transboundary EIA/EA procedures and public registers on EIA/SEA. However, the national law does not require the public to be informed about the nature of possible decisions or, where there is one, the draft decision.

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

Statistics on the level of public participation in decision making processes including authorisations is available in the national reports on the state and protection of the environment in the Republic of Bulgaria (available at the web-page of the Executive Environmental Agency)²¹³ and the MoEW reports²¹⁴.

Access to justice

Bulgarian legislation grants standing to interested persons (environmental NGOs – ENGOs – and physical persons) to bring to court both measures of general nature, such as protected areas management plans, and certain regulatory acts issued by the executive authorities.

The normative acts (by-laws) issued by the executive authorities can be challenged (Article 185-196 of the APC). They may be challenged in full or in relation to individual provisions. Citizens, organisations and bodies whose rights, freedoms or legal interests are affected, or

²¹³ http://eea.government.bg/bg/dokladi

may be affected, by a by-law normative act, or for whom such act gives rise to obligations, have the right to challenge the act.

After the provision of the Spatial Development Act (SDA), which fully banned challenging general spatial plans as being unconstitutional (Article 215 (6) SDA), a limited possibility for legal review was introduced (Article 127 (12) and (13) SDA). General spatial plans can now be challenged by the owners of estates directly affected by the plan. Plots that can be considered directly affected are further limited to plots where the plan envisages either the construction of public infrastructure or the restriction of owner's rights for public interests related to protection of the environment and of human health, protection of agricultural areas, forest areas, protected areas and special areas of conservation. 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 ENGOs, but only by owners, holders of limited property rights and concessionaires of the plot or of the neighbouring real estates regulated or directly affected by the detailed spatial plan (Article 131 SDA). At the moment, the prevailing case-law on the matter is that only ENGOs registered with public interest have a right of appeal in environmental cases. To grant standing to the interested public within the scope of environmental impact assessments, 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 was not 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 Act²¹⁵. This practice goes against the settled case-law of the Court of Justice of the EU and is subject to infringement proceedings by the Commission.

If an act is adopted in the form of a law (normative instrument), the only possibility for direct judicial review of the act is before the Constitutional Court, and only specific subjects (one fifth of the Members of the 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).

There is a link to the website of the MoEW with general information about the Aarhus Convention and some

²¹² Bulgarian law uses notion 'environmental assessment' as equivalent to 'strategic environmental assessment'.

²¹⁴ <u>https://www.moew.government.bg/bg/otchet-za-izpulnenieto-na-byudjeta-po-politiki-i-programi-za-2020-g-na-mosv</u>

²¹⁵ Confirmed by <u>a Court Order of the Supreme Administrative Court No</u> <u>552 of 24 January 2022</u>.

guidance related to its provisions²¹⁶. Other forms of dissemination are provided mostly by NGOs on their websites²¹⁷ or on the special project websites.

In the 2019 EIR, Bulgaria received two priority actions in this area. Despite some progress in the implementation of the INSPIRE Directive, more efforts are needed. Little progress has been made in access to justice as regards general spatial plans. No progress has been made in the area of access to justice on air pollution. Although amendments to the Air Quality Act have been drafted in this sense, they have not yet been adopted.

2022 priority actions

- Bulgaria should make spatial data more widely accessible and prioritise environmental datasets in implementation of the INSPIRE Directive, especially those identified as high-value spatial datasets for implementing environmental legislation
- Bulgaria should improve access to courts by the public concerned when it comes to challenging administrative or regulatory decisions and omissions also in the planning context, in particular under water, nature and air quality.
- Bulgaria should better inform the public about their access to justice rights, notably in relation to air pollution and nature in particular by referring to on judicial and administrative portals to the Commission eJustice fact sheets on access to justice in environmental matters²¹⁸.

Compliance assurance

Environmental compliance assurance covers all the work undertaken by public authorities to ensure that industries, farmers and others fulfil their obligations to protect water, air and nature, and manage waste²¹⁹. It includes support measures provided by the authorities such as:

(i) compliance promotion²²⁰;

(ii) inspections and other checks that they carry out, i.e. compliance monitoring²²¹;

²¹⁶https://www.moew.government.bg/bg/dostup-do-

informaciya/orhuska-konvenciya/.

²¹⁷ <u>https://www.zazemiata.org/за-земята-достъп-до-правосъдие</u> ²¹⁸ <u>https://e-</u> (iii) the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement²²².

Compliance promotion and monitoring

The main measures addressed to duty holders (incl farmers) to support implementation of the Nature Directives and Nitrates Directive are provision of information on the web-sites of the relevant authorities, information campaign and advices provided by the 27 regional offices of the National Agricultural Advisory Service at the Ministry of Agriculture, Food and Forestry which works as farmer helpdesk by providing advisory services, current information and technical assistance to farmers for the implementation of efficient and competitive agriculture in the Republic of Bulgaria, including provision of consultations and trainings.

The information on the Nature Directive and its implementation is detailed and well elaborated²²³, as well as the information on good agricultural and environmental conditions, related national standards, CAP, Rural Development Programmes and its specific measures.

As regards the Nitrates Directive the national authorities have a number of measures, programmes and consultations for farmers (carried out by the Ministry of Agriculture, Food and Forestry and its bodies - National Agricultural Advisory Service and State Fund Agriculture).

Still it can be noted that the information on the obligations of the duty holders under the Nature and Nitrates Directives is spread across different websites and Bulgaria lacks one centralised point of information, which would facilitate access to this information for farmers and duty holders.

The information on inspections (plans and reports) or on follow-up cases of non-compliance based on information from the public/citizens is publicly available on the websites of the national competent authorities and regularly updated. The territorial structures of the Ministry of Environment and Water (Regional Inspectorates for Environment and Waters, National Parks and River Basin Directorates) publish their plans for monitoring and control activities online, together with the lists of entities subject to monitoring under various

²²³ https://www.moew.government.bg/bg/priroda/natura-2000/natura-2000-v-bulgariya/naj-chesto-zadavani-vuprosi/ https://natura2000.bg/ http://natura2000.moew.government.bg/Home/Documents https://www.naas.government.bg/data/Natura%202000.pdf https://www.mab.government.bg/data/Natura%202000.pdf

https://www.mzh.government.bg/bg/sektori/rastenievadstvo/dobrizemedelski-i-ekologichni-usloviya/

https://www.dfz.bg/en/

justice.europa.eu/content_access_to_justice_in_environmental_matter s-300-en.do

²¹⁹ The concept is explained in detail in the Communication on 'EU actions to improve environmental compliance and governance' COM (2018) 10 and the related Commission Staff Working Document, SWD (2018)10.

²²⁰ This EIR focuses on the help given to farmers to comply with nature legislation and nitrates legislation.

²²¹ This EIR focuses on inspections of major industrial installations.

²²² This EIR focuses on the availability of enforcement data and coordination between authorities to tackle environmental crime.

relevant laws, including industrial emissions legislation. The Regional Inspectorates for Environment and Water (RIEW) publish monthly activity reports covering the number of inspections carried out, the number of recommendations provided, and the number of penalties imposed, including fines. The inspection reports are also made publicly available on their web-sites. Public access to environmental information is provided through regional reports on the state of the environment, which are prepared by each RIEW annually and contains detailed information incl. analysis on environmental media and the control activities carried out within the current year.

Complaint handling and citizen science

Bulgaria has a functioning environmental complaint system in place. Members of the public can report on environmental issues via telephone (the 'Green hotline') or by e-mail to the Ministry of Environment and Water, RIEW, Basin Directorates or National Park Directorates. The telephone numbers are published on the Ministry's website²²⁴ and on the websites of its regional bodies. Complaints can also be submitted in paper. After verification of the complaint, the competent authorities send information about the follow-up of the complain to the complainant.

The regional inspectorates of environment and water keep anonymous monthly public records on submissions of complaints and the measures taken to address them by the competent authorities. Information on the action taken is published on the websites of the MoEW²²⁵ and its territorial offices.

Online information is available on the national competent authorities' websites about complaints on the management by the administration on environmental cases, including public authority's handling of the complaints, response time, follow-up steps, actions preserving anonymity, and statistics on the outcomes²²⁶.

No evidence was found for public-awareness raising initiatives to make citizens aware of the possibility to alert or inform the authorities about facts likely to cause environmental damage, or breaches of environmental law. Although the legislation on biodiversity and on environmental damage provides opportunity for NGOs and other organizations to be involved in activities related to nature protection and identification of environmental damage, no specific national policy on encouraging the use of citizens' science in respect of enforcement or promotion of compliance with environmental law was identified.

Enforcement

There is no centralised database or statistics on environmental crimes and their outcomes. No information is available on the prosecution of environmental crimes.

The cooperation between the different competent authorities for the protection of the environment and investigation of environmental crimes is required by several national laws. Still, limited information is available on how professionals dealing with environmental damages or crimes work together in practice.

In 2020, a special coordination center was created at the MoEW which has as one of its tasks to coordinate exchanges of information between environmental enforcement authorities. However, besides a written instruction for administrative cooperation in cases of transboundary shipments of waste, no other written, standardized procedures or internal rules, circulars or memoranda of understanding have been identified on cooperation between the different competent authorities, dealing with environmental crimes or damages²²⁷.

Environmental Liability Directive (ELD)

In Bulgaria, the Law on liability for preventing and remedying ecological damage requires the Minister of Environment and Water to set up and maintain an information system for cases of imminent threats of environmental damage or cases of environmental damage caused. The information must include the type of (imminent) ecological damage, initiated pre-trial proceedings or court cases in connection with such (imminent) ecological damage and results thereof, and the application of financial insurance. However, this information system is not yet available. Currently, information on environmental damage is made public through national reports on the state and protection of the environment in the Republic of Bulgaria (available at

^{224 &}lt;u>https://www.moew.government.bg/bg/zelen-telefon-za-podavane-na-signali/</u>

²²⁵ <u>https://www.moew.government.bg/bg/zelen-telefon-za-podavane-na-signali/predprieti-dejstviya-po-postupili-signali-v-mosv/</u>

²²⁶https://portal.moew.government.bg/bg/Home/Service?admUnitServi celd=3;

https://www.mzh.government.bg/media/filer_public/2019/04/12/rd09 -373-vp.pdf ;

https://www.mh.government.bg/bg/politiki/antikoruptsiya/podavanena-signal/

²²⁷ The national authorities states that there is no need for written strategy as far as exchange of information and coordination among authorities and administrations is concerned. This is done at operational level on the basis of the functions and responsibilities of the unit set out in the Rules of the structure and the activity of MoEW.

the web page of the Executive Environmental Agency) and the MoEW reports.

Little progress has been achieved as regards the four priority actions received in 2019. Therefore they are essentially reiterated.

2022 priority actions

- Bulgaria should make available a structured and centralized online information point for farmers and other duty-holders on how to comply with their obligations on Nitrates and Nature Directives.
- Bulgaria should encourage public participation in enforcement, by awareness-raising activities on the options for reporting environmental problems; more generally, establish active plans for making use of citizen science.
- Bulgaria should make information and statistics available on the prosecution of environmental crimes, and through information on formal arrangements for cooperation among responsible public bodies.

Effectiveness of environmental administrations

Those involved in implementing environment legislation at EU, national, regional and local levels need to have the knowledge, tools and capacity to ensure that the legislation and the governance of the enforcement process bring about the intended benefits.

Administrative capacity and quality

The structure of the public administration in Bulgaria reflects its three administrative tiers (central, regional and local).

The Ministry of Environment and Water remains the central and main authority in the environmental sector in Bulgaria. It is responsible for drafting and implementing national environmental policy; for devising the environmental regulation system; and for coordinating and supervising the protection, conservation and rational utilisation of natural resources, waste management policy and water management policy. It is also responsible for coordination and management of financial resources on environmental matters, including the operational programme for the environment. The Executive Environment Agency is an administration linked to the Environment Minister managing the national environment monitoring system.

The 15 Regional Inspectorates of Environment and Water (RIEWs) are territorial units of the Ministry. They have regulatory, information and inspection tasks; their main activity is to enforce environment law. They have the power to impose sanctions and issue prescriptions,

orders on application of coercive administrative measures and penalty decrees. They also provide the 'green hotline' for environmental information and alerts. The four basin directorates are regional authorities of the Ministry with responsibility for water basin management. They cover the four RBDs in Bulgaria: the Danube River, the Black Sea, the East Aegean and the West Aegean. The three national park directorates (NPD) — Rila, Pirin and Central Balkan — are administrative structures under the Minister of environment and water, ensuring the implementation of the state policy for management and protection of the national parks. Their tasks include assignment of the development of the updated management plans and their implementation.

Municipalities are the basic administrative-territorial units of self-governance. The powers of municipalities vary from full-scale legal powers regarding waste management, to drafting policies and providing information on and support for administrative procedures such as SEA and EIA, for which the RIEWs are responsible. They may also participate in procedures for designating protected areas and drafting management plans for protected areas²²⁸.

Bulgaria is characterised by a high turnover rate of civil servants for unclear reasons, indicating some underlying deficits²²⁹. This is a striking exception compared to the low to medium turnover in the civil service of most Member States leading to weakening of the administration.

Bulgaria's governance effectiveness indicator has significantly dropped from 0.26 in 2019 to -0.07 in 2020^{230} .

Improving the quality of services and introducing egovernment has been a key priority in public administration reform for many years without visible results.

As noted in the 2019 EIR, unstable policies and lack of trust in key public institutions such as the judiciary continue to be significant deterrents to investment in the Bulgarian economy and lead citizens and environmental NGOs to opt to address their concerns about possible breaches of environmental legislation to the European Commission, even in areas not covered by EU law.

The strategic importance of an efficient public administration and of a well-functioning digital government, including e-health and e-procurement was emphasised by the COVID-19 crisis. Although having been

²²⁸ UNECE, <u>Environmental performance review (EPR) Bulgaria,2017</u>, p. 28.

²²⁹ A Comparative Overview of Public Administration Characteristics and Performance in EU28

²³⁰ World Bank, <u>2020 Worldwide Governance Indicators.</u>

supported by the EU, their implementation is progressing too slowly. This negatively impacted the effectiveness of the public sector during the lockdown period. Bulgaria is lagging behind in the provision of e-services. Looking forward, an effective public administration will be key for ensuring the timely and effective implementation of the recovery measures. Cooperation and coordination at all levels of government remain particularly important. A stronger regulatory predictability and stability, effective control over policy implementation, and a reduction of the administrative burden, would improve the business environment and promote investment, positively affecting the speed of the recovery²³¹.

Non-conformity is not a significant factor in infringement proceedings against Bulgaria, as Bulgaria generally transposes environmental directives on time and correctly. Poor application and enforcement of environmental legislation, however, continue to be major cause of infringement proceedings.

Structural issues in areas such as air quality, appropriate assessment under the Habitats Directive, waste management and urban waste water treatment, while having been partially addressed, remain unresolved. The application of the Directives on environmental impact assessment (EIA) and strategic environmental assessment (SEA) are also, to some extent, raised as complaints mainly in relation to Nature protection.

Coordination and integration

Structural problems in areas such as air quality, appropriate assessment under the Habitats Directive, waste management and urban waste water treatment, while having been partially addressed, remain unsolved. The application of the Directives on environmental impact assessment (EIA) and strategic environmental assessment (SEA) are also, to some extent, raised as part of complaints mainly in relation to Nature protection.

As mentioned in the 2019 EIR Report, Bulgaria has introduced the streamlining of environmental assessments under EIA and Habitats Directives already prior the revision of the EIA Directive. Coordinated procedures have been established for EIA, Water Framework Directive and Industrial Emission Directive. It was highlighted as a good practice.

The Commission encourages the streamlining of the environmental assessments in order to reduce duplication and avoid overlaps in environmental assessments applicable to projects. Although helping to reduce unnecessary administrative burden and accelerating decision-making, provided it ios done without coimpromising the quality of the environmental assessment procedure²³².

Reforms through the Commission's Technical Support Instrument (TSI)

The Commission supports environmental implementation and the green transition through the EU financing programmes. It also gives support by granting technical assistance through the TSI.

In 2021, Bulgaria participated in a green budgeting TSI training in 2021 and made a request for a TSI project for the establishment of a national decarbonisation fund. The Commission encourages Bulgaria to continue applying in the coming years.

TAIEX EIR Peer to Peer Projects

The TAIEX-EIR peer-to-peer tool²³³ was launched by the Commission to facilitate peer-to-peer learning between environmental authorities. Bulgaria is not very active in using the TAIEX-EIR peer-to-peer tool. During the reporting period, it participated in only two multicountry events related to air quality, involving all or most Member States.

²³¹ Recommendation for a <u>Council Recommendation, Bulgaria 2020</u> (para 24).

²³² The Commission issued a guidance document in 2016 regarding the setting up of coordinated and/or joint procedures that are simultaneously subject to assessments under the EIA Directive, Habitats Directive, Water Framework Directive, and the Industrial Emissions Directive, OJ C 273, 27.7.2016, p. 1.

²³³ TAIEX - Environmental Implementation Review - PEER 2 PEER -Environment - European Commission (europa.eu).