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Environmental Implementation Review 2022
Country Report - ROMANIA

Accompanying the document

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

Environmental Implementation Review 2022: *Turning the tide through environmental compliance*

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This report has been written by the staff of the Directorate-General for Environment, European Commission. Any comments are welcome to the following e-mail address: ENV-EIR@ec.europa.eu

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Executive summary

In previous Environmental Implementation Reviews (EIRs), the main challenges identified for Romania for the implementation of EU environmental policy and law were:

- to improve waste management, in particular by reducing landfilling and increasing separate collection of waste in order to increasing recycling;
- to complete the Natura 2000 network by addressing the remaining insufficiencies in its sites of community importance (SCI) component, to ensure the adoption of the management plans that have still not been adopted and the drafting of site-specific conservation objectives, to establish conservation measures for all Natura 2000 sites, and ensure the network is effectively managed;
- to reduce particulate matter and nitrogen dioxide emissions by reducing traffic congestion and taking further action on energy;
- to improve compliance with EU urban waste water legislation in order to reach EU targets;
- to improve urban wastewater treatment through appropriate investment;
- to improve the coordination and to enhance the administrative capacity of the authorities and agencies involved in implementing EU legislation, in particular on water and waste management and the protection and management of Natura 2000 sites.

On **waste management**, there has been limited progress, with no real increase in recycling and composting. Romania needs to step up its efforts to reach EU recycling targets after 2020. In 2021, it adopted 41 county waste management plans and the Bucharest municipality waste management plan. It will soon revise its National Waste Management Plan. All of these are positive developments.. The Romanian recovery and resilience plan (RRP) includes a circular economy national strategy action plan, plus waste investments. However, Romania needs to depart from landfilling and mechanical biological treatments (MBTs) and develop waste infrastructure further upstream in the waste hierarchy. Romania could end up having to pay fines because of its illegal and non-compliant landfills.

On **water management**, Romania has made only limited progress in reducing the number of non-compliant agglomerations under the Urban Waste Water Treatment Directive. Romania is lagging behind in the implementation of the Urban Waste Water Treatment Directive with a large fraction of their waste waters remaining untreated, even though all the deadlines in the Accession Treaty have already expired. To improve water quality and make sanitation more affordable, the waste water system needs further reforming and progress needs to be made on building the necessary and appropriate waste water treatment infrastructure. The RRP contains investments in this area, but the there is a wide implementation gap.

On **air quality**, Romania has made limited progress in reducing overall emissions. For both particulate matter PM_{10} and nitrogen dioxide (NO_2), there were still exceedances reported in 2020, and in several air quality zones, Romania has not reached the target values for ozone concentration. The RRP allocates funds to more sustainable energy and transport and can therefore help improve the situation. However, Romania is the only Member State that has still not adopted its National Air Pollution Control Programme (NAPCP), due in April 2019. This is a major setback.

On the **Natura 2000** network, Romania has made limited progress. It has adopted a number of management plans, but a significant number still need to be adopted. The conservation status of habitats and species of EU interest must also be improved by fully protecting Natura 2000 sites, using EU funds, and planning investments more strategically. For this, the increased administrative and technical capacity of ANANP, the agency in charge of protected areas, will be essential. The RRP does not have sufficient funds for biodiversity to cover these administrative and technical needs; the shortfall therefore needs to be made up using other EU funds and national resources. It is also necessary to reform the forestry system and forestry procedures to effectively conserve the forests that should be protected under the EU Habitats and Birds Directives, and to strictly protect primary and old-growth forests.

EU financing continues to provide substantial support for environmental implementation. Total environmental financing reached 1.11% of GDP in 2014-2020, while environmental investment needs are estimated to be at least 1.6% of GDP in the coming years, signalling a potential financing gap of 0.49% of GDP over baselines. Romania is due to receive over EUR 29 182 billion from its RRP (2021-2026) and EUR 29 219 billion from cohesion policy funding (the European Regional Development Fund (ERDF) and the European Social Fund (ESF)) (2021-2027). Absorption of funds for the environment is still very problematic, with Romania risking having to pay fines very soon in some sectors, if urgent action is not taken.

Part I: Thematic areas

1. Circular economy and waste management

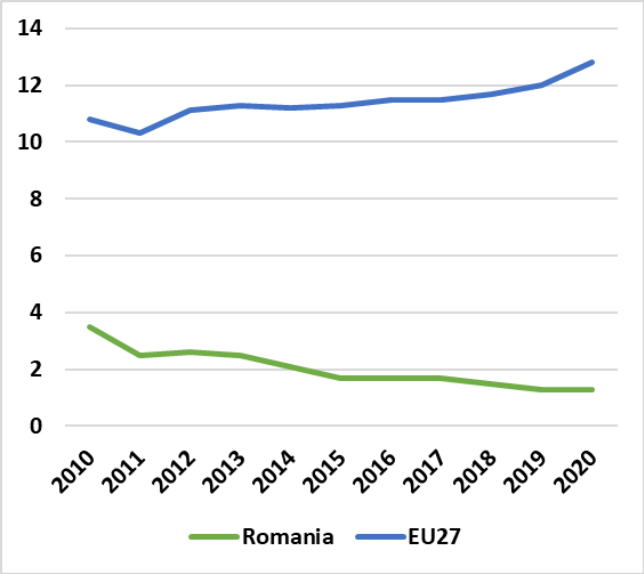
Measures towards a circular economy

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 the materials that are fed back into our economy. Large differences in the circularity rate exist between countries. To help achieve the goal in the EU circular economy action plan of doubling the EU's circular material-use rate by 2030, ambitious measures targeting the whole product life cycle are needed at Member State 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, like: (i) 'remanufacturing'; (ii) increasing circularity in production processes; (iii) recycling; (iv) boosting eco-innovation; and (v) increasing the uptake of green public procurement.

The circular (secondary) use of material in Romania declined from 1.5% in 2015 to 1.3% in 2019. It is very low compared to the EU average of 12.8%. In contrast to most other Member States, Romania's performance as regards the secondary use of material has deteriorated in the last few years.

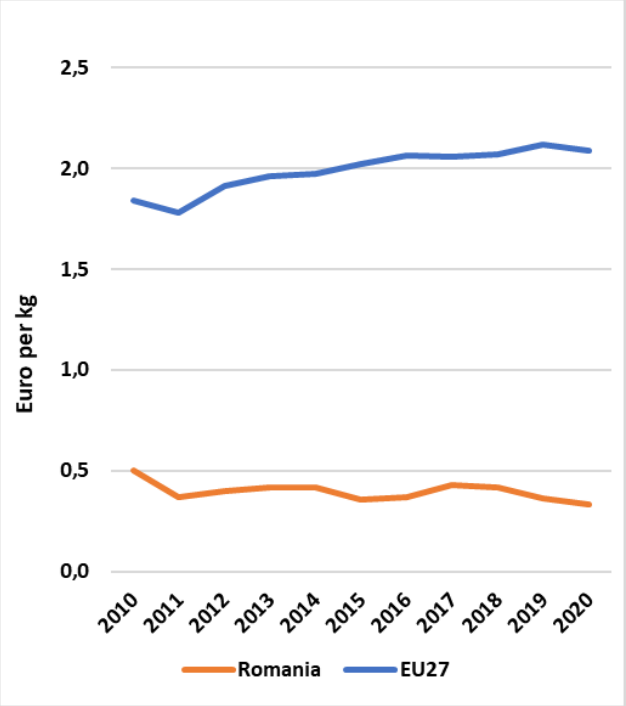
Figure 1: Circular material use rate (%), 2010-2020[1]



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 0.33 generated per kg of material consumed in 2020, resource productivity in Romania remained well below the EU average of EUR 2.09 per kg.

[1] Eurostat, Circular Economy Monitoring Framework.

Figure 2: Resource productivity 2010-2020[2]



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 Member State level. Since the launch of the online European Circular Economy Stakeholder Platform in 2017[3], national, regional or local authorities have used the platform to share their strategies and roadmaps.

Romania does not yet have a comprehensive national circular economy action plan or roadmap. Nor does it have sectorial strategies for plastics, textiles, or construction.

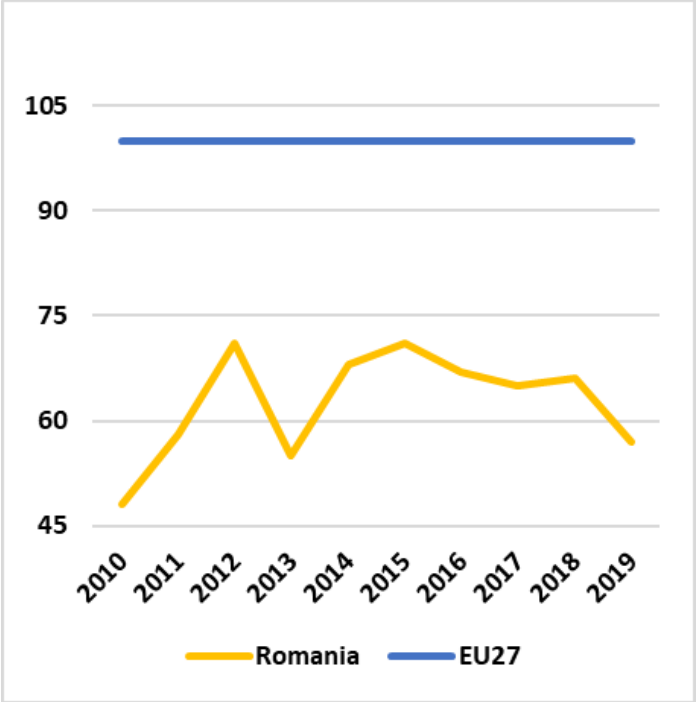
That said, under the Romanian recovery and resilience plan (RRP), it is planned to adopt a national circular economy strategy and an action plan covering the whole life cycle of products, as well as legislative acts to operationalise unitary waste management, waste treatment and municipal sanitation services, and to extend packaging producer responsibility. Romania is using funds from the European Commission's Technical Support Instrument (TSI) to develop the strategy and the action plan.

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 come when it is implemented across all value chains. Therefore, 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 circular innovations, creating new business opportunities.

In 2021, Romania ranked 24th on the 2021 Eco-innovation scoreboard, with a total score of 71, indicating that Romania needs to step up its eco-innovation activities. In all five components (eco-innovation inputs, eco-innovation activities, eco-innovation outputs, resource efficiency outcomes and socio-economic outputs) of the 2021 Index, Romania performs well below the EU average.

Figure 3: Eco-innovation performance 2010-2019[4]



Reasons for this poor performance include low demand, as well as businesses' and the general population's low environmental awareness, in addition to the cumbersome policy framework and the lack of policy vision and genuine incentives in this area.

[2] Eurostat, Resource productivity.
[3] Circular Economy Stakeholder Platform
[4] European Commission - Directorate-General for Environment (DG ENV), Eco-innovation Observatory, Eco-innovation Index.

Green public procurement

Public procurement accounts for a large proportion of European consumption, with public authorities' purchasing power representing around 14% of EU GDP. Public procurement can help drive the demand for sustainable products that meet reparability and recyclability standards.

Romania does not have a national strategy for green procurement. However, environmental criteria have been included in public procurement since the publication of Law 69/2016 on green public procurement. In 2018, in application of the National GPP action Plan, the Ministry of the Environment, Water and Forests and the National Agency for Public Procurement (ANAP) issued a Green Public Procurement Guide that includes minimum requirements for environmental protection for certain groups of products and services.

Through the constant involvement of the ANAP and the Ministry of the Environment, Water and Forests, environmental considerations have been progressively integrated into procurement procedures.

Romania is also in the process of introducing national GPP implementation monitoring systems, by establishing specific procedures to be followed for collecting information. These are planned for after the revision of Law 69/2016 on green public procurement. A national green public procurement plan, setting mandatory multiannual targets for the contracting authorities, is also being drafted.

EU Ecolabel and the eco-management and audit scheme (EMAS)

The number of EU Ecolabel products and EMAS-licensed[5] 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, Romania had 78 products out of 83 590, and 39 licenses out of 2 057, registered in the EU Ecolabel scheme, showing a low take-up of the products and licenses[6]. Moreover, 5 organisations, amounting to 5 sites from Romania are currently registered in EMAS, the European Commission's Eco-Management and Audit Scheme[7]. Since the 2019 EIR, there have been 54 new product registrations and 20 new EU Ecolabel licenses registrations, whereas for EMAS, there are 6 less registrations.

In the 2019 EIR, Romania received priority actions focusing on the need to ensure strategic long-term policy development and an integrated approach to mainstreaming sustainable development, circular economy thinking and eco-innovation across policies, as well as the need to increase support for resource efficiency measures among SMEs, in particular by investing further in education and training. The Commission notes limited progress in this area, meaning that the priority actions remain valid. A priority action on circular material use has been added.

2022 priority actions

- Strengthen the policy framework to speed up the transition towards the circular economy by all economic sectors, in particular by implementing the circular economy strategy and circular economy action plan as soon as they are adopted.
- Continue developing policy along strategic long-term lines, and an integrated approach to mainstreaming sustainable development, circular economy thinking and eco-innovation across policies, as well as not losing sight of the need to increase support resource efficiency measures among SMEs, in particular by investing further in education and training.
- 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 management of municipal waste[8] for which EU law sets mandatory recycling targets.

[5] EMAS is the European Commission's Eco-Management and Audit Scheme, a programme to encourage organisations to behave in a more environmentally sustainable way.
[6] European Commission, Ecolabel Facts and Figures.
[7] As of May 2018. European Commission, Eco-Management and Audit Scheme.
[8] Municipal waste consists of (a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals,

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 product re-use are the most preferred options under the waste hierarchy. The revised Waste Framework Directive adopted in 2018 sets new obligations on waste prevention and introduces more effective waste prevention programmes.

Municipal waste generation in Romania has started to increase in recent years. However, despite having risen to 287 kg/year/inhabitant in 2020, it is still far below the EU average (505 kg/year/inhabitant), as Figure 4 shows. This indicates that Romania's economic growth is not yet decoupled from its generation of waste.

Figure 4: Municipal waste by treatment in Romania, 2010-2020[9]

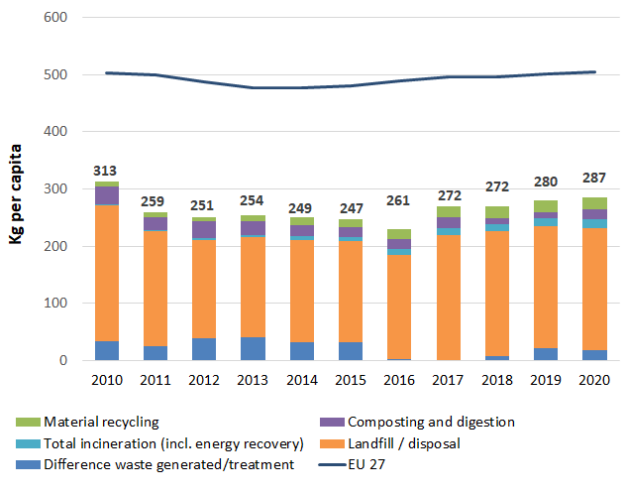


Figure 4 also depicts the municipal waste by treatment in Romania in terms of kg per capita. The situation varies from region to region, but managing waste efficiently remains a major issue for Romania.

The Commission decided to refer Romania back to the Court of Justice of the European Union for failing to fully comply with the Court judgment[10] of 18 October 2018, which found that Romania had failed to meet its obligations under the Landfill Directive (Directive 1999/31/EC) in relation to 68 landfills[11].

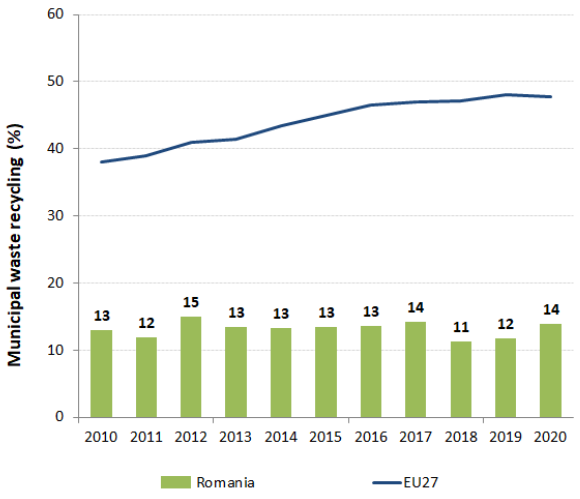
To date, 42 landfills have still not been closed. This second referral to the Court may result in penalties for the time that elapsed after the first judgment until achieving compliance.

From information available to the Commission, a significant number of irregular and substandard landfills operate in Romania, presenting serious risks for human health and the environment. Studies and investigations launched by the European Commission have found that on some sites, most of the waste is landfilled without any treatment. These sites also lack infrastructure, as do the counties where they are located[12]. In November 2021, the Commission has therefore initiated an infringement procedure against Romania for failing to comply with the Landfill Directive[13] and the Waste Framework Directive[14] [15].

Romania had made no real progress over the past decade on stepping up its recycling rate and diverting municipal waste from landfilling. At 144 kg per capita (after a decrease in 2018), the recycling rate for municipal waste was still low in 2020. This is well below the EU 2020 average of 48%, as Figure 5 shows.

Romania is considered at risk of missing the EU 2020 targets for the reuse/recycling of waste and needs to step up investment in recycling to reach the EU 2020 and 2025 recycling targets.

Figure 5: Recycling rate of municipal waste, 2010-2020[16]



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] Eurostat, Municipal waste by waste operation, April 2022.

[10] EUR-Lex - 62017CJ0301 - EN - EUR-Lex (europa.eu)

[11] https://ec.europa.eu/commission/presscorner/detail/en/IP_21_5354.

[12] INF/21/5342.

[13] Directive 1999/31/EC.

[14] Directive 2008/98/EC.

[15] INF/21/5342.

[16] Eurostat, Recycling rate of municipal waste, April 2022.

The Commission's Early Warning Report'[17] listed Romania as one of the countries at risk of missing the EU 2020 target of recycling 50 % of municipal waste. The report listed key priority actions which Romania should take to close this implementation gap. The Commission is currently finalising its analysis of Romania's progress in implementing the 2018 Early Warning Report recommendations, as well as an analysis of the progress it has made towards reaching the 2025 waste recycling targets. It will present its Early Warning Report at the end of 2022 and assess the progress made to date.

Implementation of the 2018 waste legislative package

Romania has notified the transposition of the 2018 waste package[18] to the Commission and a conformity assessment is under way.

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

Following a significant delay, Romania adopted in December 2017 its national WMP and its national WPP, both of which are valid until 2025. In its prevention programme, three strategic objectives have been proposed: (i) to reduce household waste per capita by 10 %, (ii) to decouple the increase in the quantity of packaging waste from economic growth, and (iii) to promote waste prevention in the wood processing, chemical, metallurgical and steel industries. A programme is in place and good initiatives are being developed, but progress is slow. As in previous years, there is a need for more systemic thinking and more emphasis on waste prevention and minimisation. The national WMP tries to anticipate the new targets set in the revised Waste Directive (Directive (EU) 2018/851). But there are gaps that need to be addressed in order to ensure compliance. Besides, since all 41 county WMPs and the Bucharest municipality WMP were adopted in 2021, using the same methodology, it is necessary to ensure consistency with the national WMP and WPP, likely to be revised soon, and ensure compliance with the revised Waste Framework Directive[19]. The Commission is assessing the compliance of the county WMPs with the legal requirements, in particular Article 28 of the Waste Directive. It is understood that, to ensure the consistency and compliance of both county WMPs and the national WMP with the Waste Framework Directive, the national WMP and WPP will be reviewed in the near future.

The Romanian recovery and resilience plan has identified investments for the development, modernisation, and completion of integrated municipal waste management systems at county level or at city/municipality level, which should be in line with the national and county WMPs.

In the 2019 EIR, Romania received priority actions, to ensure the closure and rehabilitation of substandard landfills; improve and extend the separate collection of waste; establish minimum service standards for separate waste collection in municipalities; set mandatory recycling targets for municipalities, with penalties for non-compliance; and to work on developing further economic instruments for waste prevention and management. Romania has made some progress, but it is very slow, and recycling is not taking off. The priority actions identified in 2019 remain valid, especially the need to improve and extend separate waste collection and to have appropriate economic instruments for doing so. Romania has to take radical and immediate measures to put in place comprehensive separate collection systems. By establishing a clear, stable and workable waste management policy framework, public and private actors could develop long-term investment strategies for waste prevention, reuse and recycling, while phasing out the landfilling of waste and avoiding overcapacity in residual waste management (such as mechanical biological treatment plants).

2022 priority actions

- Ensure the closure and rehabilitation of substandard landfills, and take action against illegal landfills and fly tipping.
- Ensure that a national waste management plan and a waste prevention programme in line with the revised Waste Framework Directive are in place and that they are consistent with the 41 county plans and the Bucharest municipality plan.
- Improve and extend the separate collection of waste, including for bio-waste. Establish minimum service standards for separate collection (e.g. frequency of

[17] European Commission, Report on the implementation of EU 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, SWD(2018)422 accompanying COM(2018)656.

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

[19] The different waste management plans are available on the website of the Ministry of the Environment, Water and Forests: http://www.mmediu.ro/categorie/documente-de-planificare-pngd-pjgd/239.

collections, types of containers etc.) in municipalities to ensure high capture rates of recyclable waste. Use the economic instruments, e.g. pay-as-you-throw, and set mandatory recycling targets for municipalities, with penalties for non-compliance (e.g. fines).

- Develop and run implementation programmes for municipalities to give them support in organising separate collection and improving their recycling performance.
- Improve the functioning of extended producer responsibility (EPR) systems, in line with the general minimum EPR requirements.

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 old-growth 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 key legislative tools to deliver on the targets in the EU's biodiversity strategy for 2030 and are the cornerstone of the European legislation aimed at conserving of the EU's wildlife[20].

Romania currently is looking for funding to develop a national biodiversity strategy until 2030. Some of the targets of the EU Biodiversity Strategy have been integrated into the government programme.

Nature protection and restoration

Natura 2000[21], 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 to ensure the long-term protection, conservation and survival of Europe's most valuable and threatened species and habitats and the ecosystems they underpin. Key milestones towards meeting the objectives of the Birds and Habitats Directives are: (i) the setting up of a coherent Natura 2000 network; (ii) the designation of sites of community importance (SCIs) as special areas of conservation (SACs)[22]; and (iii) the setting of conservation objectives and measures for the Natura 2000 sites.

Setting up a coherent network of Natura 2000 sites

Romania hosts 87 habitat types[23] and 245 species[24] covered by the Habitats Directive. The country also hosts populations of 148 bird taxa listed in the Birds Directive Annex I[25].

As indicated in Figure 7 below, by 2021, 22.7% of the Romanian national territory was covered by Natura 2000 (EU average 18.5%). Special protection areas (SPAs) classified under the Birds Directive covered 15.6% (EU average 12.8%) and sites of Community importance (SCIs) designated under the Habitats Directive covered 16.9% (EU coverage 14.2%) of the territory.

There were 606 Natura 2000 sites in Romania, including 9 marine sites. The latest assessment of the SCI part of the Natura 2000 network shows that there are a few insufficiencies, meaning that Romania still has to complete its Natura 2000 network. An infringement procedure has been open since July 2019[26].

Considering both Natura 2000 and other nationally designated protected areas, Romania legally protects 23.50% of its terrestrial areas (EU 27 average 26.4%) and 21.5% of its marine areas (EU 27 average 10.7%)[27].

[20] These should be reinforced by the Nature Restoration Law, according to the new EU Biodiversity Strategy.
[21] 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 because some SCIs and SPAs overlap. 'Special Areas of Conservation (SACs)' means an SCI designated by the Member States.
[22] 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 do not add up because some SCIs and SPAs overlap. Special Areas of Conservation (SACs) are SCIs designated by the Member States.
[23] EEA, Article 17 dashboard, Annex I total, 2019.
[24] EEA, Article 17 dashboard, 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.
[25] EEA, Article 12 dashboard, Annex I, 2020. This counting only takes into account birds taxa for which information was requested.
[26] https://ec.europa.eu/commission/presscorner/detail/en/INF_19_4251
[27] EEA, Protected Areas, terrestrial protected area percentage (2021) and marine protected area percentage (2019), March 2022.

Figure 6: Marine & terrestrial protected area coverage[28]

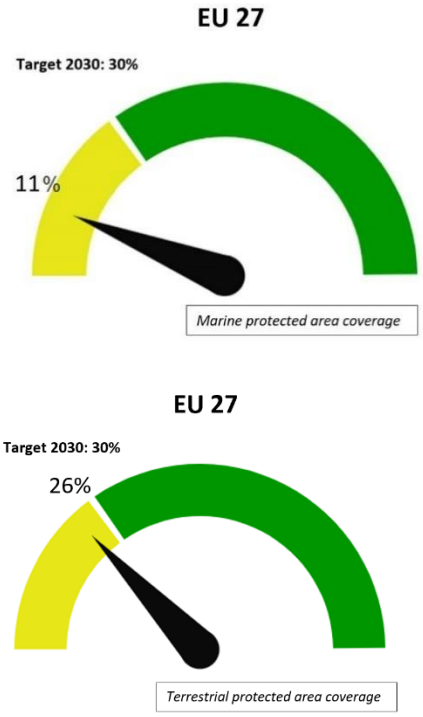
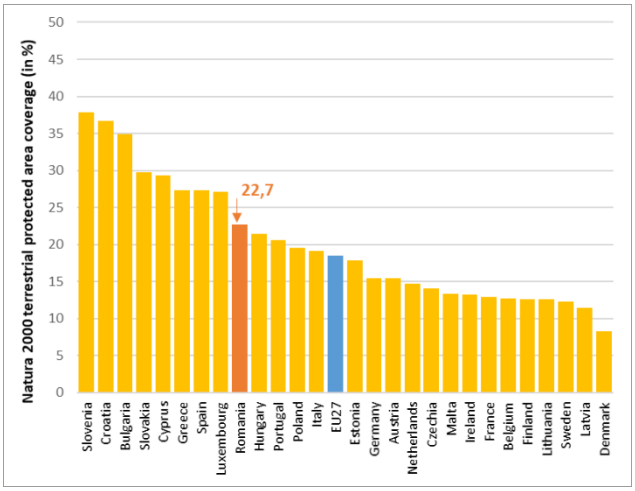


Figure 7: Natura 2000 terrestrial protected area coverage, 2021[29]



Designating Special Areas of Conservation (SACs) and setting conservation objectives and measures

The six-year deadline set by the Habitats Directive to designate SCI as SAC and establish appropriate conservation objectives and measures has expired for 383 sites in Romania.

As Romania had not designated SCIs as SACs and had failed to set site-specific conservation objectives and measures, the Commission opened an infringement procedure in July 2020 in relation to 383 sites[30]. According to the latest information provided within the Nature Dialogue held on 8 December 2021, 221 sites subject to the case have a management plan. The remaining, 161 sites still do not have a management plan. Out of a total of 606 Natura 2000 sites, 132 sites do not have a management plan either.

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 Romania on the conservation status of habitats and species covered by the Article 17 of the Habitats Directive for the period 2013-2018, the conservation status of around 68% of the habitats and 46% of species was good. Regarding birds, about 19% of the breeding species showed short-term increasing or stable population trends while the same figure for the wintering species was 15%.

[28] EU Biodiversity Strategy Dashboard, indicators A1.1.1 and A1.2.1, February 2022.
[29] European Environment Agency, Natura 2000 Barometer, February 2022.

[30] https://ec.europa.eu/commission/presscorner/detail/en/INF_20_1212.

Figure 8: Assessments on conservation status for habitats for 2007-2012 and 2013-2018 reporting periods[31]

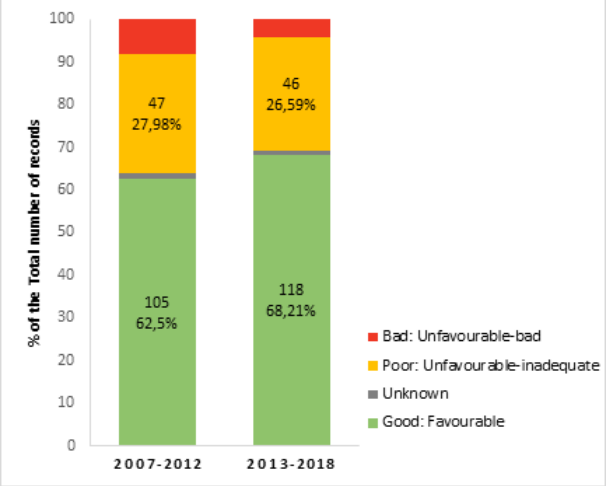
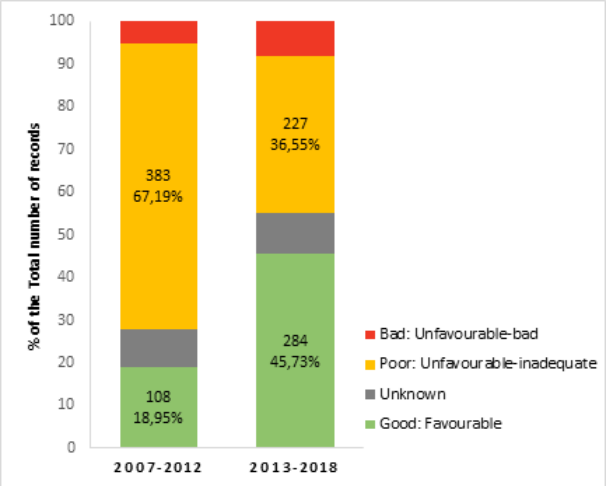


Figure 9: Assessments on conservation status for species for 2007-2012 and 2013-2018 reporting periods[32]



All in all, the proportion of habitats and species with good conservation status seems to have increased between the two reporting periods. Agriculture was by far the greatest pressure on habitats. For species, the development, construction and use of infrastructure and the extraction and cultivation of living resources were the main pressures. Romania has made progress in adopting management plans for Natura 2000 sites but a number are still missing. It also needs to make progress in effectively managing these sites.

The LIFE programme has supported some nature conservation projects for particular (sensitive) species and/or habitats. The following projects all ended some years ago: several projects regarding large carnivores in the Eastern Carpathians, LIFE RE-bison (which is about the reintroduction of bisons in Romania); LIFE for Danube sturgeons; several projects on waste (the Acasa – ELSYS project, elsysproject.ro), VAL-C&DW in Buzau, Ecotic Caravan - ECOTIC); several projects on the protection of bats and their habitats (www.batlife.ro, www.salvatililiecii.ro); specific projects on bird species such as the Dalmatian Pelican or Aquila Pomarina (www.pomarina.ro) ; a project on marshes (Life for Marsh; fundatiacarpati.ro). There are a few ongoing projects with ambitious objectives: ROSALIA[33] (www.liferosalia.ro); CARPATHIA, the second LIFE project on forest protection in the Fagaras Mountains (www.carpathia.org), and the Fish For Life project to restore connectivity on a river.

The Romanian Ministry of the Environment, Water and Forests has put together a database of all the LIFE projects funded so far in Romania, as part of their capacity building project[34].

Under the Romanian RRP, a reform relates to the system of managing protected natural areas for the coherent and effective implementation of the EU Biodiversity Strategy. The reform's objective is to operationalise the current framework for designating nature protected areas, in particular by establishing a mechanism for interlinking legislation specific to the various sectors that have an impact on biodiversity, namely education, agriculture, forestry, hunting, tourism, spatial organisation, transport and energy.

In the 2019 EIR, Romania received seven priority actions, particularly to complete the Natura 2000 designation process and put in place clearly defined conservation objectives and the necessary conservation measures for the sites in question. Romania still needs to respond to the neccesity to complete the Natura 2000 network by addressing the remaining insufficiencies in its SCI. It has made progress on developing and adopting site-specific conservation objectives. The other priority actions relate to the importance of communicating with stakeholders, of

[31] 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.
[32] Idem.

[33] This project addresses threats to five saproxylic beetle species in forest in the Putna Vrancea Natura 2000 site in Romania, particularly the relative lack of favourable habitat due to removal of dead wood and old-growth forest being restricted to small and isolated patches.
[34] The partial list of projects can be downloaded from BAZA DE DATE LIFE | Ministerul Mediului (mmediu.ro) and a more complete list can be found on Proiecte LIFE în România | Life program.

getting authorities to cooperate with each other, and of ensuring data collection and access to forest management plans. Progress has been limited in these areas.

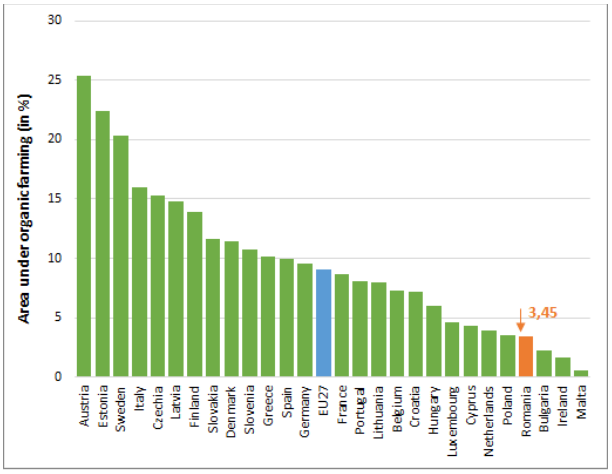
Bringing nature back to agricultural land and restoring soil ecosystems

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 high-diversity landscape features and increase areas under organic farming to at least 25%.

Romania, with an estimated 3,45% of its area under organic farming, is below the EU average of 9,07% (2020 data, Eurostat).

Figure 10: Share of total utilised agricultural area occupied by organic farming per Member State, 2020[35]



[35] https://ec.europa.eu/eurostat/databrowser/view/sdg_02_40/default/table?lang=en (Eurostat, Area under organic farming, February 2022).

Approximately one third of all farms in the EU are found in Romania (some 3.9 million farm holdings). Farming structures are highly polarised - large and medium sized farms, account for around 7% of holdings, but manage some 70% of Romania's agricultural area,while 93% of the holdings are less than 5 hectares. These holdings are typically subsistence and semi-subsistence holdings, managing the other 30% of the country's agricultural area. More than one fifth of farmland is under high nature value systems of farming in Romania. The combination of intensive agriculture by large farms and subsistence agriculture by small farms results in a relatively good overall situation in terms of greenhouse gas (GHG) emissions, nitrate levels in groundwater and the state of biodiversity. Among the key challenges for the environment and land management are the dual pressures of the risk of abandonment of agricultural activities in some areas, and pressures from intensification in others. Large agricultural areas are affected by soil degradation phenomena (erosion, landslides, and desertification), risks that are expected to intensify as the effects of climate change increase. The irrigation systems are mostly degraded and function poorly[36].

Soil ecosystems

Soil is a finite and extremely fragile resource. It is increasingly degrading in the EU.
The new EU soil strategy, adopted on 17 November 2021, stresses the importance of soil protection, of sustainable soil management and of restoring degraded soils to achieve the Green Deal objectives as well as 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 of degradation is the area of soil that is sealed or artificialized.[37] The net land taken per year in the period 2012-2018 can be seen as a measure of one important pressure on nature and biodiversity - land use change - which constitutes at the same time an

[36] Commission Recommendations for Romania's CAP Strategic Plan, 2020, https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cap-strategic-plans_en#documents.

[37] 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).

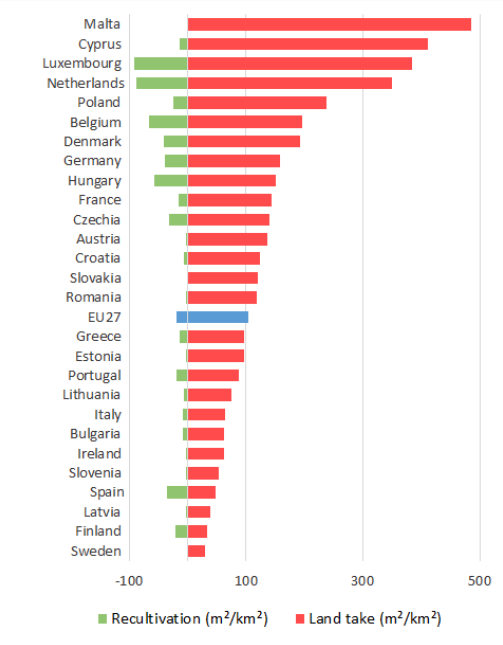
environmental pressure on people living in urbanised areas.

Despite a reduction in the last decade (land take was over 1000 km2/year between 2000 and 2006), land take in EU28 still amounted to 539km2/year between 2012-2018. The net land take concept combines land take with land return to non-artificial land categories (re-cultivation). While some land was re-cultivated in the EU-28 in the period 2000-2018, 11 times more land was taken.

Romania ranks above[38] the EU average with net land take of 114,6 m2/km2 (EU-28 average: 98.3 m2/Km2).

In 2018, Romania updated its reporting on land degradation according to the Performance Review and Implementation System (PRAIS3) reporting platform[39] with actions intended to combat the degradation identified.

Figure 11: Land take and re-cultivation in EU27 (m2/km2), 2012-2018[40]



Romania has not yet committed itself to setting land degradation neutrality targets under the United Nations Convention on Combating Desertification[41].

[38] Land take in Europe — European Environment Agency (europa.eu) Figure 6.
[39] All Reports | Prais3 (unccd.int).
[40] European Environment Agency, Land take in Europe, December 2021.
[41] The LDN Target Setting Programme | UNCCD.

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 ambitions.
Forests are important carbon sinks and conserving them is vital if the EU is to achieve climate neutrality by 2050

Of the 27% of EU forest area protected under the Habitats Directive, less than 15% of assessments show a favourable conservation status[42]. The share of forested areas in the EU with a bad conservation status increased from 27% in 2015 to 31% in 2018[43].

In Romania, forests cover 32,46% of the territory[44] and more than 40% of the assessments reveal a bad to poor status[45]. In Romania, a total of 165 000 hectares are covered by primary forests[46].

According to the Impact Assessment for the Environmental Crime Directive, illegal logging is a frequent offence in Romania[47].

The Commission has launched an infringement procedure under Article 258 of the Treaty on the Functioning of the European Union against Romania for systemic breaches of the EU environmental law in relation to forestry activities[48] , and sent a reasoned opinion to Romania in July 2020. The Commission found that Romania had failed to carry out efficient and adequate checks to verify operators' compliance with the obligations imposed by the Timber Regulation and to apply appropriate penalties. Moreover, forest management plans are also adopted and implemented prior to the completion of the assessments required under the Habitats Directive[49] and Strategic Environmental Assessment Directive[50]. Also, by using remote sensing imagery, the Commission has found

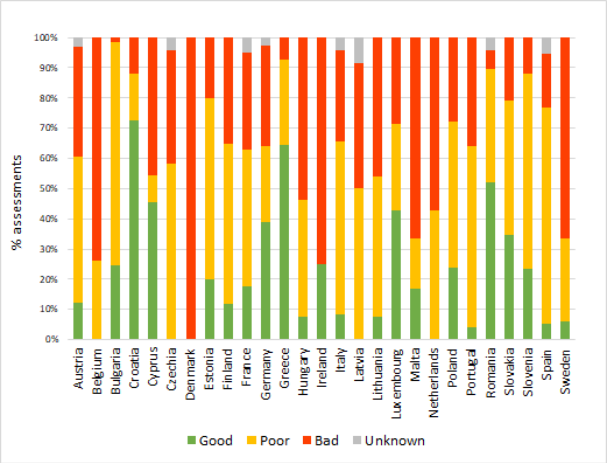
[42] EEA, State of Nature in the EU.
[43] EUR-Lex - 52020DC0635 - EN - EUR-Lex (europa.eu)
[44] EEA, Forest information system for Europe.
[45] COM SWD (2021) 652.
[46] JCR, Mapping and assessment of primary and old-growth forests in Europe, p. 13.
[47] [1] SWD (2021) 465 final/2, p. 18.
[48] https://ec.europa.eu/atwork/applying-eu-law/infringements-proceedings/infringement_decisions/index.cfm?lang_code=EN&typeOfSearch=false&active_only=0&noncom=0&r_dossier=20202033&decision_date_from=&decision_date_to=&title=&submit=Search and https://ec.europa.eu/commission/presscorner/detail/en/INF_20_1212.
[49] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
[50] Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.

evidence that several valuable Natura 2000 sites have deteriorated due to logging activities. Lastly, the Commission found that the Romanian authorities refuse systematically to grant access to forest management plans.

Since the infringement procedure was launched, some progress can be noticed. The new version of the timber tracking system has entered into force, but some key elements are missing (forest management maps, satellite alerts, etc.). Legislation on the assessment of environmental impacts of the forest management plans was adopted, but subsequently suspended by court order. Romania still needs to remedy the damage done to Natura 2000 sites.

The Romanian RRP entails a reform of forest management and governance systems through the development of a new national forest strategy and subsequent legislation. The reform's objective is to ensure a clear and robust strategic and regulatory framework for the implementation of sustainable forest policies to support climate change mitigation and adaptation.

Figure 12: Conservation status of forests protected under the Habitats Directive in EU Member States, 2013-2018 (% assessments)[51]



The European Union Timber Regulation (EUTR)[52] prohibits the placing on the EU market of illegally harvested timber. According to 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 2 years has been changed to become annual reporting and covers the calendar year as of 2019.

Between March 2017 and February 2019[53], Romania carried out 1 986 checks on domestic timber operators. It also carried out 161 checks on operators importing timber. It is estimated that Romania had 3 700 operators placing domestic and 161 operators placing imported timber types onto the internal market over the reporting period.

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, following a request from the Council in 2019 to table a legislative proposal to address the problem, and a European Parliament resolution recommending the Commission to come forward with an EU legal framework to halt and reverse EU-driven global deforestation. This Regulation will repeal and replace the EU Timber Regulation, as the new Deforestation Regulation will essentially integrate and improve the existing system to control timber legality.

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 invasive alien species and decrease the number of 'red list' species they threaten by 50%.

The core of the Regulation (EU) 1143/2014 on IAS[54] ('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.

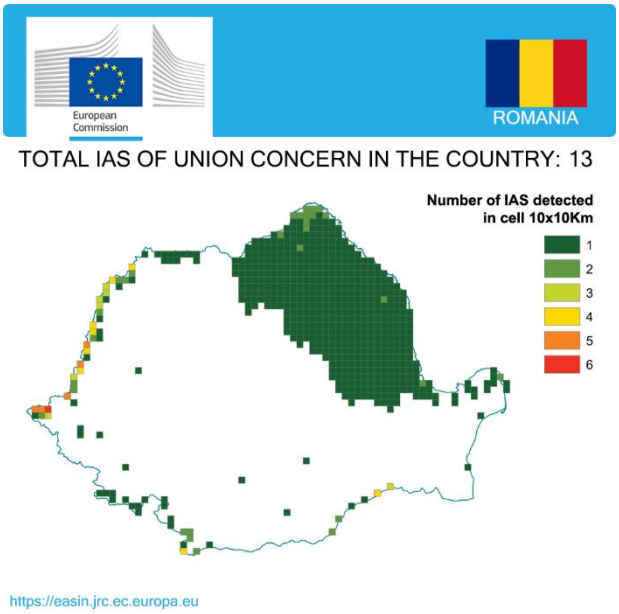
According to a 2021 report[55] on the review of the application of the IAS Regulation, the implementation of

[51] European Environment Agency, Conservation status and trend in conservation status by habitat group - forests, January 2022.
[52] Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010.
[53] COM/2020/629 final.
[54] 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
[55] 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, COM(2021) 628 final, 13.10.2021.

the IAS Regulation is already starting to deliver on its objectives such as a coherent framework for addressing IAS at EU level and increased awareness of the problem of invasive alien species. At the same time, the above 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 several aspects of the implementation of the IAS Regulation.

A 2021 report[56] on the baseline distribution shows that from the 66 species on the Union list, 13 have been observed in the environment in Romania. The spread can be checked in Figure 13.

Figure 13: Number of invasive alien species of EU concern, based on available georeferenced information for Romania, 2021



An infringement procedure is ongoing for Romania on several accounts:

- Romania failed to establish and implement a single action plan or a set of action plans fulfilling the requirements specified in Article 13 of the IAS Regulation by 13 July 2019 and to transmit it/them to the Commission without delay;
- Romania failed to establish a surveillance system of IAS of Union concern, or include it in its existing system, or to establish a system of monitoring or other procedures to prevent the spread of IAS into or within the EU by 13 January 2018 in order to comply with Article 14(1) of the Regulation.

In the 2019 EIR, Romania had received a priority action to increase coordination and consistency between Natura 2000 and forest management plans. Progress in this area is still limited, so the priority action remains valid.

With regard to IAS, Romania received a priority action to investigate the apparent lack of data and seek ways of improving its surveillance systems. Since it has failed to do so, the priority action remains valid.

2022 priority actions

- Consider for implementation the measures that have been included in the priority action framework (PAF).
- Complete the Natura 2000 network by addressing the remaining insufficiencies in its SCI part.

[56] 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.

- Ensure the adoption of the management plans that have still not been adopted and the drafting of site-specific conservation objectives and establish conservation measures for all Natura 2000 sites.
- Provide resources to implement all conservation measures so that species and habitats can be maintained or restored to a favourable conservation status.
- Continue to enhance efforts to collect reliable data on the conservation status of protected habitats and species as well as their occurrence at site level and to improve the quality of the reported data and the permitting procedures.
- Ensure that ANANP (the agency in charge of protected areas) has the sufficient technical and administrative capacity to carry out its tasks. In general, strengthen the administrative capacity to improve the designation and management of protected sites. Strengthen communication with stakeholders.
- Urgently take further adequate action against illegal logging activities, carry out efficient and adequate checks to verify operators' compliance with the obligations imposed by the Timber Regulation and apply appropriate penalties and remedy the damage done to Natura 2000 sites.
- Ensure that the necessary assessments are carried out in accordance with the Habitats and Strategic Environmental Directives prior to adopting forest management plans. Provide access to forest management plans.
- Adopt a national forest strategy and ensure genuine protection for what should be "protected forests" under the EU and national law. Specific national guidelines are needed for managing protected forests and offering guidance to all those involved in forest planning and management. Ensure that afforestation and reforestation projects are subject to the relevant environmental legislation and in line with the requirements of the national forest strategy.
- Draw up and implement an action plan or a set of action plans to fulfill the requirements of the IAS Regulation.
- Investigate the apparent lack of data and seek ways of improving Romania's surveillance system.

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 conservation[57].

The Marine Strategy Framework Directive (MSFD)[58] 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 subregion. These marine strategies comprise different steps to be developed and implemented over six-year cycles.

Among other obligations, the MSFD requires Member States by 15 October 2018 to draw up a set of GES characteristics for each descriptor (Article 9), 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.

The Commission has assessed Romania's 2018 determinations of GES for each of the MSFD's 11 descriptors[59] and determined their level of adequacy in relation to the Commission Decision on criteria and methodological standards on GES of marine waters[60].

A good or very good score indicates that the national determinations of GES are well aligned with the Commission GES Decision requirements, providing qualitative and quantitative national environmental objectives to be achieved for Member States' marine waters.

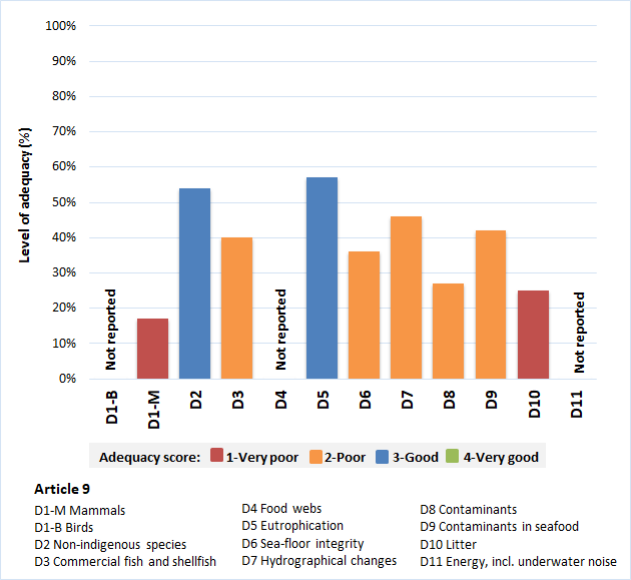
[57] The EU Common Fisheries Policy (CFP) aims to contribute to the achievement of the objectives of the environmental legislation for marine ecosystems.

[58] Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy.

[59] Annex I to Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive), OJ L 164, 25.6.2008, p. 19–40.

[60] This assessment was made in relation to the "Commission GES Decision", Commission Decision No 2017/848, pp. 43-74.

Figure 14: Level of adequacy of GES determination by Romania (BLK region) with criteria set under the Commission GES Decision – article 9 (2018 reporting exercise)[61]



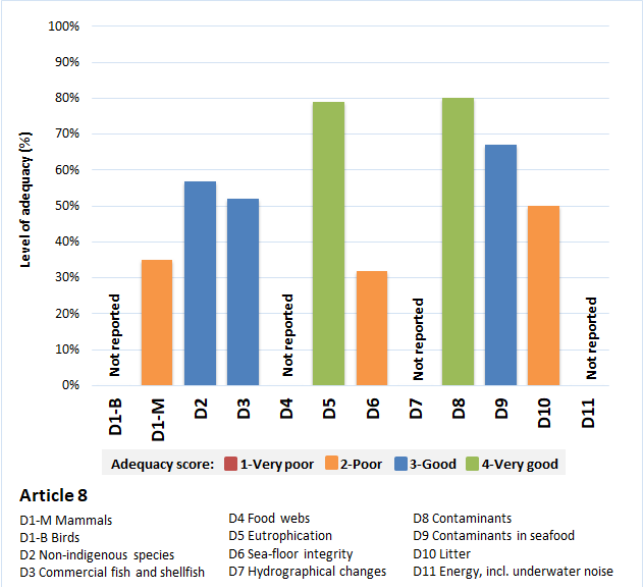
Romania has one marine sub-region which is the Black Sea. In this marine sub-region, 2 out of 11 determinations of GES were assessed as good or very good. The national determination of GES by Romania is coherent for 2 out of the 11 MSFD descriptors.

Romania is missing data for three descriptors: D4 Food web, D7 Hydrographical changes, and D11 Energy, including underwater noise.

The MSFD also requires that Member States make an assessment of the current environmental status of their marine waters in relation to the determination of GES. A good or very good score indicates that Member States have good capabilities for assessing their marine environment in accordance with the requirements set out in the Commission GES Decision.

[61] Assessment carried out by the European Commission of the data reported by the Member States, January 2022. Please note that only two sub-sections of descriptor D1 are displayed (D1-M Mammals and D1-B Birds). For the assessment, these two sub-sections were considered as a whole after averaging them.

Figure 15: Level of adequacy of national assessment of Romania's marine environment (BLK region) with criteria set under the Commission GES Decision – article 8 (2018 reporting exercise)[62]



Out of 11 descriptors, 5 were scored as good or very good. Romania's assessment of its marine environment is consistent with the requirements set in the Commission GES Decision for 5 out of 11 descriptors.

Romania is missing data for four descriptors, D1-B Birds, D4 Food web, D7 Hydrographical changes, and D11 Energy, including underwater noise.

In the 2019 EIR, the Commission suggested Romania to ensure timely reporting on the various elements of the Marine Strategy Framework Directive (MFSD), so that Romania can be part of future Commission's assessments. Since then, Romania has done the reporting and the Commission has carried out its assessment. However, the Commission has identified some deficiencies that Romania should address (see below).

As highlighted in the Commission's report on the implementation of the MSFD[63], while 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.

In March 2022, the European Commission also published a Communication with recommendations for Member States. The Commission assessment highlights that Member States need to step up their efforts to determine the GES and to use of the criteria and

[62] Idem.
[63] COM(2020)259.

methodological standards according to the Commission GES Decision. The considerations set out above form the basis for the 2022 priority actions.

2022 priority actions

- GES assessments to be completed where missing.
- Reach GES for descriptors where this is not yet the case.
- Ensure regional cooperation with Member States sharing the same marine (sub)region to address predominant pressures.
- Implement the Commission's recommendations regarding the preparation of the marine strategies, encompasing: the assessment, the determination of GES and the establishment of environmental targets.

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. The EU needs a better performing biodiversity observation network and more consistent reporting on the condition of ecosystems.

An ecosystem assessment is an analysis of the pressures on – and the condition of – terrestrial, freshwater and marine ecosystems and their services. It uses spatially explicit data and a comparable methodology based on European data about the functions of ecosystem assets and the ecosystem services they produce.

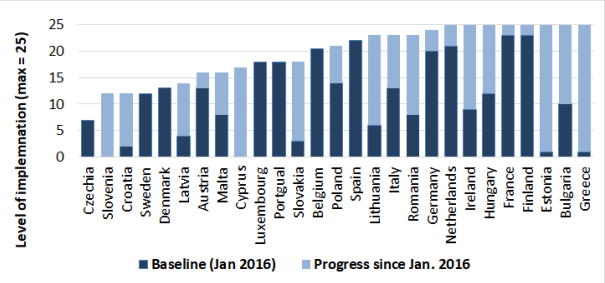
Ecosystem accounting is built on five core accounts (ecosystem extent, ecosystem condition, physical ecosystem services, monetary ecosystem services and monetary ecosystem assets). These accounts are compiled using indicators of ecosystem assets and the ecosystem services they produce.

The project "Demonstrating and promoting natural values to support decision-making in Romania" implements the ecosystem assessment process in Romania. Public policy analysis aims to assess the level of integration of the concept of ecosystems and ecosystem services into public policy for the period 2014-2020 in order to develop recommendations on integrating the results of mapping and biophysical assessments into decision-making processes. An inventory of the responsible institutions, an institutional map, and a questionnaire to identify institutional needs related to the ecosystem assessment process have been created.

Romania's major achievements in this area have been the mapping of ecosystems at the national level, achieving "Ecosystems classification in Romania EUNICE 3" (intermediate version), as well as the development of tools for updating this classification (land field guide to identify the ecosystems, methodological guide for assessing the ecosystem services). The selection of methods for assessing the ecosystem services based on the matrix of indicators and on the comparative analysis of existing methods is also a major achievement.

Romania has provided updated information and made encouraging progress since January 2016 (Figure 16). This assessment is based on 27 implementation questions and updated every 6 months.

Figure 16: ESMERALDA MAES Barometer, January 2016-March 2021 (Mars 2021)[64]



2022 priority action

- Continue supporting the mapping and assessment of ecosystems and their services, and of ecosystem accounting development, using appropriate indicators for integrating ecosystem extent, condition and services (including some monetary values) into national accounts; continue supporting the development of national business and biodiversity platforms, including natural capital accounting systems to monitor and value the impact of business on biodiversity.

[64] 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 long-term 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.

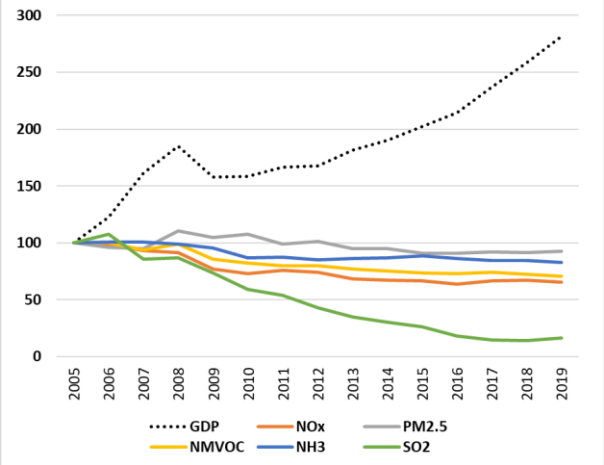
The EU has developed a comprehensive suite of air-quality legislation, which sets health-based air-quality standards[65] and emissions-reduction commitments[66] by Member State for several air pollutants.

In Romania, air quality continues to give cause for grave concern. The latest available annual estimates (for 2019) by the European Environment Agency[67] point to about 21 500 premature deaths (or 244 800 years of life lost (YLL)) attributable to fine particulate matter concentrations[68], 640 (7 600 YLL) to ozone concentrations[69] and 3 660 (41 800 YLL) to nitrogen dioxide concentrations[70] [71].

Emissions of key air pollutants have decreased significantly in Romania over the last few years, while GDP growth continued (see graph). Romania has failed to submit the latest air pollutant emission projections required under Article 10(2) of the National Emission Reduction Commitments Directive (NECD)[72]. The latest inventory data submitted by Romania, prior to review by the Commission, indicate that Romania is in compliance with the emission reduction commitments for non-methane volatile organic compound (NMVOC), sulphur dioxide (SO_2) and ammonia (NH_3), and in non-compliance with the emission reduction commitments for nitrogen dioxide (NO_x) and $PM_{2.5}$ in 2020.

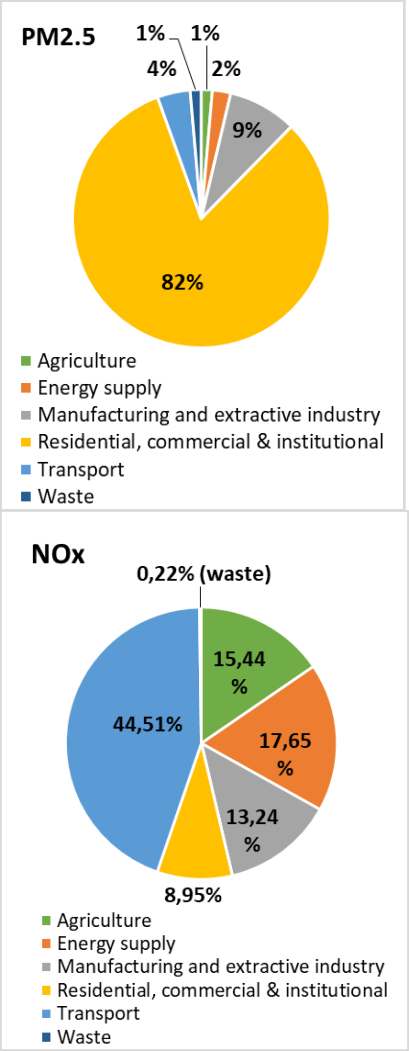
Furthermore, Romania has not submitted its National Air Pollution Control Programme (NAPCP)[73] . The Commission decided to refer Romania to the Court of Justice for failing to adopt its first NAPCP to reduce national emissions of certain atmospheric pollutants under Directive (EU) 2016/2284 on the reduction of national emissions of certain atmospheric pollutants.

Figure 17: Emission trends of main pollutants/ GDP in Romania, 2005-2019[74]



[65] European Commission, 2016. Air Quality Standards
[66] European Commission, Reduction of National Emissions.
[67] European Environment Agency, Air Quality in Europe –2021 Rapport. Please see details in this report as regards the underpinning methodology, p.106.
[68] Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM10 refers to particles with a diameter of 10 micrometers or less. PM2.5 refers to particles with a diameter of 2.5 micrometers or less. PM is emitted from many human sources, including combustion.
[69] Low-level ozone is produced by photochemical action on pollution.
[70] 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).
[71] Please note that these figures refer to the impacts of individual pollutants, and to avoid double-counting cannot be added up to derive a sum.
[72] Directive 2016/2284/EU.
[73] https://ec.europa.eu/commission/presscorner/detail/en/ip_21_6264.
[74] European Environment Agency.

Figure 18: PM2.5 and NOx emissions by sector in Romania, 2019[75]



In 2020, exceedances above the limit values established by the Ambient Air Quality Directive (AAQD) were registered for nitrogen dioxide (NO_2) in three air quality zones and for particulate matter (PM_{10}) in four zones. Furthermore, for several air quality zones the target values for ozone concentration have not been met[76].

Persistent breaches of air quality requirements, which have severe negative effects on health and the environment, are being followed up closely by the European Commission through infringement procedures (mainly over PM_{10} and NO_2 exceedances) covering all Member States concerned, including Romania for exceedances of PM_{10} and NO_2 limit values. The Court of Justice of the European Union has delivered a judgement on exceedances of PM_{10} limit values (C-638/18; COM vs Romania) confirming non-compliance with Directive 2008/50/EC. The aim of these legal actions is to bring about the swift implementation of appropriate measures to bring all air quality zones into compliance with EU air quality standards. An infringement procedure is ongoing for shortcomings in Romania's air quality monitoring system.

The Romanian recovery and resilience plan entails some reforms that may be helpful to address air quality issues, notably in taxation.

In the 2019 EIR, Romania received priority actions to improve on air quality and indicated that action would be needed, e.g. in the context of the forthcoming national air pollution control programme (NAPCP), to reduce emissions from the main sources (by accelerating the reduction of nitrogen oxide (NOx) emissions and nitrogen dioxide (NO2) concentrations, accelerating reductions in particulate matter (PM2.5 and PM10) emissions and concentrations, upgrading and improving the air quality monitoring network, and ensuring timely reporting of air quality data). No real progress has been made, and Romania still does not have the effective tools (NAPCP, appropriate data modelling, forecasting, appropriate data collection, analysis and monitoring, adequate monitoring systems) or policies to address these issues.

2022 priority actions

- Adopt as a matter of urgency the National Air Pollution Control Programme (NAPCP).
- Ensure full compliance with the EU air quality standards and maintain downward emissions trends of air pollutants to reduce adverse air pollution impacts on health and the economy with a view to reaching WHO guideline values in the future.
- Upgrade and improve the air quality monitoring network, and ensure timely reporting of air quality data.

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)[77]. The Commission

[75] European Environment Agency.
[76] European Environment Agency, Eionet Central Data Repository.
[77] 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

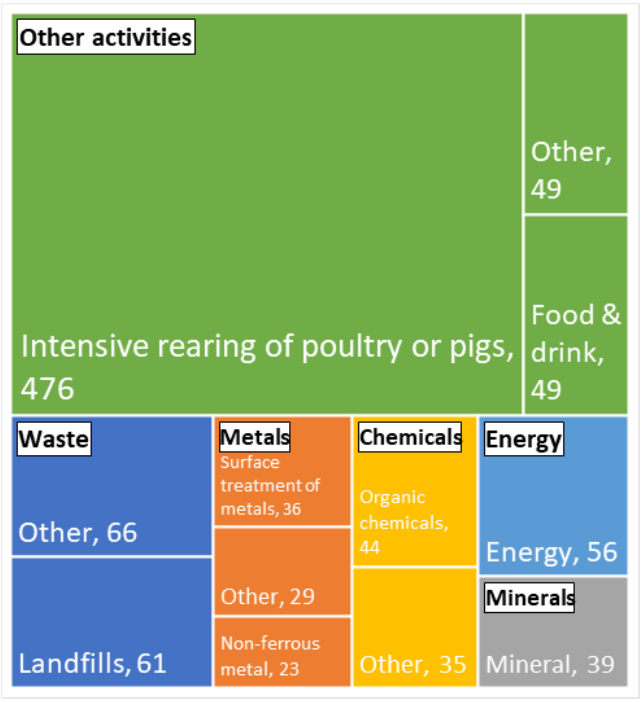
tabled a proposal in April 2022[78]. The revision seeks to improve the Directive's contribution to the zero-pollution objective, as well as its consistency with climate, energy and circular economy policies.

The overview of industrial activities regulated by IED below is based on data reported to the EU Registry (2018)[79].

In Romania, around 960 industrial installations are required to have a permit based on the IED. The distribution of installations is shown in the figure below. On 2 December 2021, the Commission decided to refer Romania to the Court of Justice of the European Union for not ensuring that three industrial plants operate with a valid permit under the IED in order to prevent or reduce pollution.

The industrial sectors in Romania with the most IED installations in 2018 were intensive rearing of poultry or pigs (49%), followed by the waste management sector, including landfills (13%), the metal sector (9%) and the chemical sector (8%).

Figure 19: Number of IED industrial installations per sector in Romania, 2018[80]



The industrial sectors identified as contributing the largest burden to the environment for emissions to air were the energy sector for sulphur oxides (SOx), nitrogen oxides (NOx), arsenic (As), mercury (Hg) and nickel (Ni); the metal production sector for emissions of dioxin and sulphur oxides (SOx) as well as emissions of heavy metals such as zinc (Zn), lead (Pb), nickel (Ni), mercury (Hg), chromium (Cr), cadmium (Cd) and arsenic (As).

The breakdown is shown in the following graph.

industrial and agricultural sectors (e.g. intensive rearing of pigs and poultry, pulp and paper production, painting and cleaning).

[78] European Commission, proposal for a revision of the Industrial Emissions Directive, 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).

[79] https://industry.eea.europa.eu/

[80] European Environment Agency, EU Registry, European Industrial Emissions Portal (data retrieved on 3 November 2021).

Figure 20: Emissions to air from IED sectors and rest of national total air emissions in Romania, 2018[81]

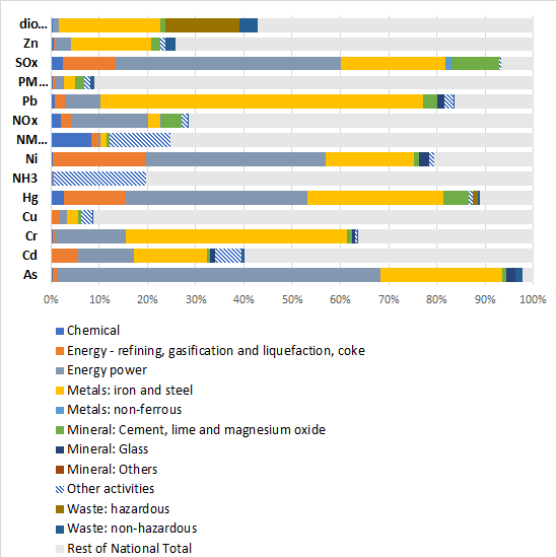
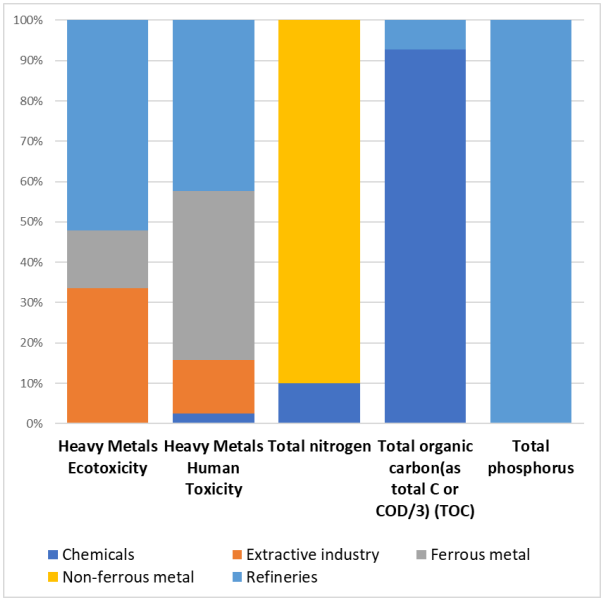


Figure 21: Relative releases to water from industry in Romania, 2018[82]



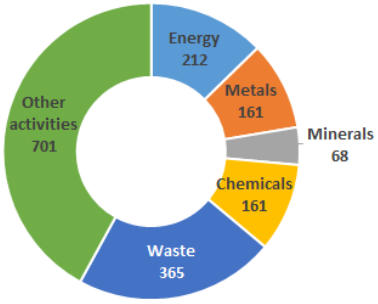
The environmental burdens for industrial emissions to water come mainly from the treatment of waste water for nitrogen, phosphorous, total organic carbon and heavy metals but no information is available as to the origin of this waste water. Refineries contribute also for total organic carbon and the chemical sector for heavy metals. The breakdown, based on E-PRTR data, is presented in the Figure below.

The EU approach taken to enforcement under the IED creates strong rights for citizens to have access to relevant information and to participate in the permitting process. This empowers citizens, and NGOs, to ensure that permits are appropriately granted and their conditions respected. As part of environmental inspection, competent authorities are afford to undertake site visits to IED installations to take samples and to gather necessary information. According to Article 23(4) of the IED, site visits are carried out between once every year and once every 3 years, depending on the environmental risks posed by the installations. In 2018, Romania carried out 1 668 site visits, the majority of which were to installations for the intensive rearing of poultry or pigs (33%), followed by the waste management sector (22%) and the energy sector (13%).

[81] European Environment Agency, Long-Range Transboundary Air Pollution (LRTAP), Air pollutant emissions data viewer (Gothenburg Protocol, LRTAP Convention) 1990-2019 (data retrieved on 3 November 2021).

[82] European Environment Agency, E-PRTR, European Industrial Emissions Portal. 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) (data retrieved on 3 November 2021).

Figure 22: Number of inspections in IED installations in Romania in 2018 [83]



The development of Best Available Techniques (BAT) Reference Documents (BREFs) and BAT Conclusions ensures a good collaboration with stakeholders and enables a better implementation of IED[84]. Since the last EIR report, BAT Conclusions were adopted for Waste Incineration, for the Food, Drink and Milk Industries and for Surface Treatment Using Organic Solvents including Wood and Wood Products Preservation 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, resulting in considerable and continuous reduction of pollution.

In 2019, Romania received priority actions to review permits to comply with new adopted BAT conclusions and to strengthen control and enforcement to ensure compliance with BAT conclusions, as well as to address pollution from the energy sector.

These actions remain valid as the Commission launched an infringement procedure against Romania for 3 installations in the energy sector being operated without a permit. There is also an infringement procedure pending related to penalties applicable to infringements of the national provisions adopted pursuant to this Directive and their implementation.

2022 priority actions

- Review permits to ensure that they comply with the new adopted BAT conclusions.
- Continue tackling pollution from the energy sector.

[83] European Environment Agency, EU Registry, European Industrial Emissions Portal (data retrieved on 3 November 2021).
[84] European Commission BAT reference documents

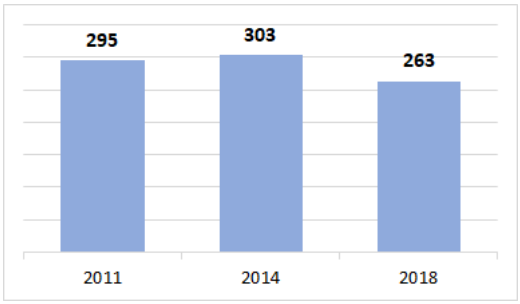
Major industrial accidents prevention - SEVESO

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 (the Seveso-III Directive[85]).

The below overview of industrial plants regulated by the Seveso-III Directive, hereafter 'Seveso establishments', is based on data reported to the eSPIRS database (2018)[86] and the Romania report on the implementation of the Seveso-III Directive for the period 2015-2018[87].

In Romania, out of the 263 Seveso establishments, 151 are categorised as lower-tier establishments (LTE) and 112 as upper-tier establishments (UTE) – based on the quantity of hazardous substances likely to be present. The UTE are subject to more stringent requirements. The evolution of the number of Seveso establishments is presented in Figure 23.

Figure 23: Number of Seveso establishments in Romania, 2011, 2014 and 2018[88]

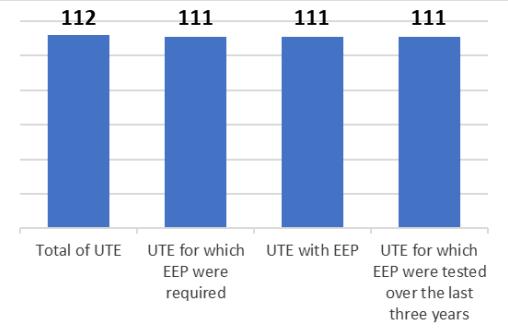


According to Romania, the External Emergency Plan (EEP) is required for 111 UTE. In 2018, 111 UTE had an EEP and 111 of these EEP had been tested over the last 3 years. The summary is shown in Figure 24. The establishment of EEPs is essential to allow proper preparation and effective implementation of the necessary actions to

[85] Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances
[86] European Commission, Seveso Plants Information Retrieval System.
[87] As provided for by Article 21(2) of the Seveso-III Directive
[88] 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.

protect the environment and the population should a major industrial accident nevertheless happen.

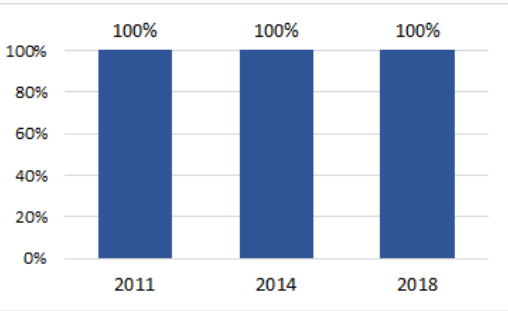
Figure 24: Situation regarding EEP in Romania, 2018[89]



The information to the public referred to in Annex V of the Seveso-III Directive – especially about how the public concerned will be warned in case of a major accident, the appropriate behaviour in the event of a major accident, and the date of the last site visit – are permanently available for 94% of the Seveso establishments in Romania.

The share of UTE for which information on safety measures and requisite behaviours were actively made available to the public over the last few years are presented in Figure 25.

Figure 25: Share of UTE for which information on safety measures and requisite behaviours were actively made available to the public in Romania, 2011, 2014 and 2018[90]



2022 priority action

- Strengthen control and enforcement to ensure compliance with the Seveso-III Directive provisions, especially on information to the public.

[89] Idem.
[90] Idem.

Noise

The Environmental Noise Directive[91] 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 produces ischemic heart disease, stroke, interrupted sleep, cognitive impairment, and stress[92].

In Romania, based on a limited set of data[93], environmental noise is estimated to cause at least around 800 premature deaths and 2000 cases of ischaemic heart disease annually[94]. It also causes some 200 000 people to suffer from disturbed sleep. The proportion of Ipeople exposed to noise fell by 5% between 2012 and 2017. On the basis of the latest full set of information that has been analysed, noise mapping of agglomerations, roads and railways is complete.

In the 2019 EIR, Romania received two priority actions to complete noise maps and action plans. As outlined above, wit has made considerable progress.

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 EU citizens benefit from good quality and safe drinking and bathing water. It will further ensure that the nutrient cycle (nitrogen and phosphorus) is managed in a more sustainable and resource-efficient way .

[91] Directive 2002/49/EC
[92] WHO 2018, Environmental Noise Guidelines for the European Region
93 For further information: European Environment Agency, Noise Fact Sheets 2021.
[94] 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.

Water Framework Directive

The Water Framework Directive (WFD)[95] is the cornerstone of EU water policy in the 21st century[96]. The WFD and other water-related directives[97] 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, all Member States are asked to submit to the Commission the third generation of river-basin management plans (RBMPs) required under the WFD. Malta has not yet reported it. These RBMPs will be subject to a Commission assessment.

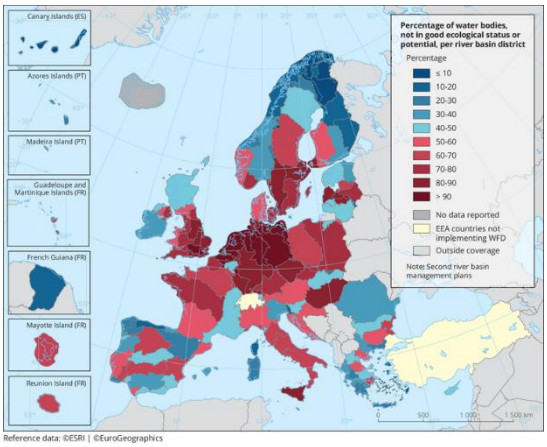
The Commission also published in December 2021 the 6th Implementation Report[98], which assesses implementation of the WFD and the Floods Directive. This report includes an assessment of the implementation of the programmes of measures and of the new priority substances.

The assessment report for Romania[99] shows that the Programme of Measures included 13,343 planned measures for the period 2016 to 2021, and 4,822 measures (which corresponds to 36% of total measures) were planned to be implemented up to 2018. However, only 59, 7 % out of the latter planned measures had been implemented by 2018. The highest percentage of measures implemented has been reached for measures tackling pressures from agricultural activities. Measures implemented in the first half of the second planning cycle contribute to some degree, to reaching the objectives of the WFD. The comparison between measures implemented in 2016 to 2018 and measures planned for implementation in 2019 to 2021 reveals the obvious disproportion between the two halves of the 2016 to 2021 planning cycle.

Based on the 2nd RBMPs reporting and data published 2020[100], in Romania 66.1% of all surface water bodies[101] reach good ecological status (with unknown status 0.2%) and 97.7% have good chemical status. For groundwaters, 10.5% failed to achieve good chemical status but 100% are in good quantitative status.

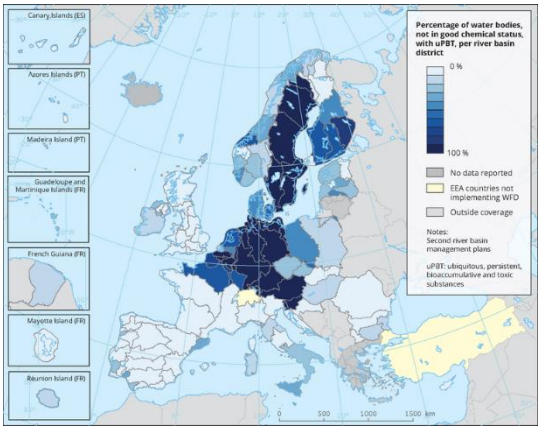
The figure below illustrates the proportion of surface water bodies in Romania and other European countries that failed to achieve good ecological status.

Figure 26: Proportion of surface water bodies (rivers, lakes, transitional and coastal waters) in less than good ecological status per River Basin District[102].



The following figure presents the percentage of surface water bodies in Romania and other European countries failing to achieve good chemical status. For Romania, the percentage is 2.3%, if one includes water bodies failing due to substances behaving as ubiquitous PBTs (Persistent, Bio-accumulative, and Toxic). Without uPBTs, the percentage of surface water bodies that fail to achieve good chemical status remains the same.

Figure 27: Percentage of surface water bodies not achieving good chemical status[103]

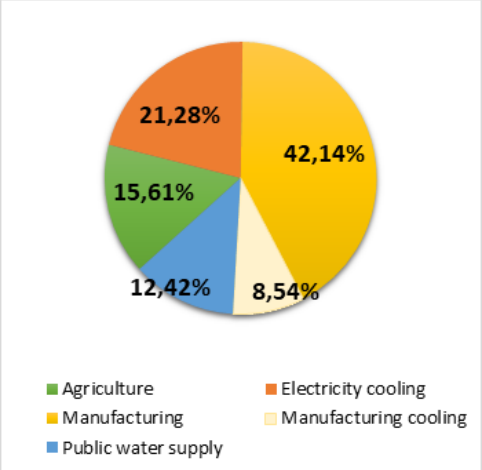


[95] The Water Framework Directive (2000/60/EC).
[96] The EU Water Policy.
[97] This includes the Groundwater Directive (2006/118/EC), the Environmental Quality Standards Directive (2008/105/EC), the Floods Directive (2007/60/EC), the Bathing Water Directive (2006/7/EC), the Urban Waste Water Treatment Directive (91/271/EEC), the new Drinking Water Directive (2020/2184/EC), the Nitrates Directive (91/676/EEC), the Marine Strategy Framework Directive (2008/56/EC) and the Industrial Emissions Directive (2010/75/EU).
[98] See the 6th Implementation Report of the WFD and the Floods Directive.
[99] 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: Romania, 2022.
[100] WISE Freshwater (europa.eu).
[101] River, lake, transitional, coastal, territorial.
[102] European Environment Agency, 2021.
[103] European Environment Agency, December 2019.

Under the IED framework, it should be stressed that Romania showed a significant decrease (72.5%) in the last decade in releases of heavy metals like Cd, Hg, Ni, Pb and 15.1% in Total Organic Carbon (TOC) to water[104].

In Romania, the total water abstracted annually (corresponding to 2019 baseline) from surface and groundwater sources is 8.658.08 hm^3 (EEA, 2022). The percentage of water abstraction per sector is 15.61% for agriculture, 12.42% for public water supply, 21.28% for electricity cooling, 42.14% for manufacturing and 8.54% for manufacturing cooling, as illustrated in the figure below. Romania uses a register to control water abstractions. Small abstractions do not require permits in Romania and not all are registered.

Figure 28: Water abstraction per sector in Romania[105]

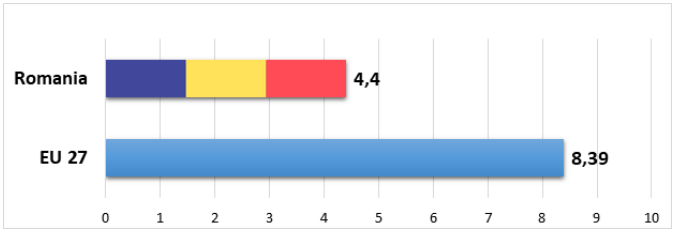


In Romania, the water exploitation index plus (WEI+)[106] is 4.40% (corresponding to year 2017), which is less than 20% that is generally considered as an indication of water scarcity[107].

The bar below presents the WEI+ index in Romania and in the EU-27. Romania is ranked 12th in the EU level in terms of WEI+.

[104] European Environment Agency, June 2021.
[105] European Environment Agency, Water abstraction by source and economic sector in Europe, 2022.
[106] The Water Exploitation Index plus (WEI+) is a measure of total fresh water use as a percentage of the renewable freshwater 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.
[107] By May 2022, EEA will develop seasonal WEI+ at river basin and NUTS2 level, which provide a more complete picture of water stress and water scarcity for each Member State

Figure 29. Water exploitation index plus (WEI+) inside EU, 2017[108]



It is worth mentioning, as a positive step, that Romania has implemented the Blueing the Black Sea Program[109] with World Bank support. The project provides farmers with small-scale infrastructure to reduce the discharge of nutrients such as nitrogen and phosphorous into bodies of water ; promotes behavioural change at the community level; and strengthens the institutional and regulatory capacities of beneficiaries.

Floods Directive

As mentioned, the Commission published in December 2021 the 6th Implementation Report. It includes, amongst others, the review and update of the Preliminary Flood Risk Assessments during the second cycle (2016-2021).

The assessment report[110] showed that Romania's Preliminary Flood Risk Assessment (PFRA) was clear and contained the relevant information. A clear methodology for taking climate change into consideration has been developed, including the incorporation of the results of climate change scenarios into the hydraulic modelling of future flood risk. It can be highlighted as a good practice that Romania has included the risk of flooding from sewerage systems in the assessment of past floods. However, the assessment identified that the impact of urban development and other land-use changes on the risk of flooding has not been considered.

Romania has not yet reported the second generation of Flood Risk Management Plans (FRMPs) under the Floods Directive. When done, the European Commission will assess progress since the adoption of the first FRMPs and publish a new report, as done in 2019.

[108] EEA, Water exploitation Index Plus, 2022.
[109] Romania - Blueing the Black Sea Consultations (worldbank.org)
[110] European Commission, Directorate-General for Environment, Assessment of Second Cycle Preliminary Flood Risk Assessments and Identification of Areas of Potential Significant Flood Risk under the Floods Directive : Member State : Romania, 2022

Drinking Water Directive

On the Drinking Water Directive[111], no new assessment of the quality of drinking water is available since the 2019 EIR. The quality of drinking water in Romania has not been indicated as an area of concern. The recast Directive [112]entered into force on 12 January 2021, Member States have until 12 January 2023 to transpose it into national law. Romania will have to comply with these updated quality standards.

Connection to the public water supply is incomplete with only approximately 57% of the population being connected, the lowest rate in the EU. Romania has also demonstrated a high leakage rate of its water supply systems (23% leakage). Investment in the water supply network is therefore needed.

Bathing Water Directive

Regarding the Bathing Water Directive, Figure 30 shows that in 2020, of Romania's 50 bathing waters, 70% were of excellent quality[113]. Detailed information on the Romania's bathing waters is available via an interactive map viewer of the European Environment Agency.

Figure 30: Bathing water quality in Europe in the 2020 season[114]

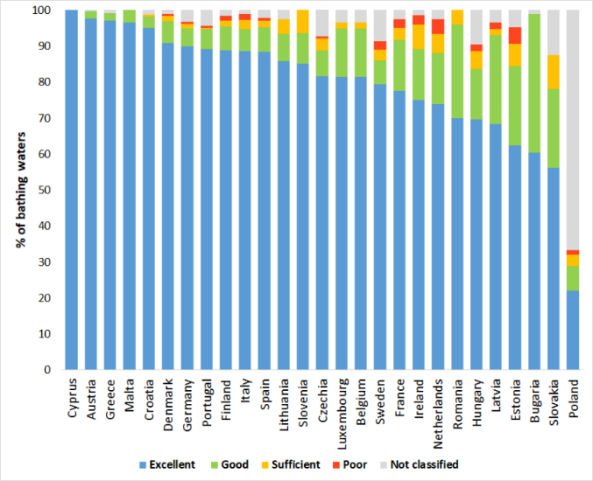
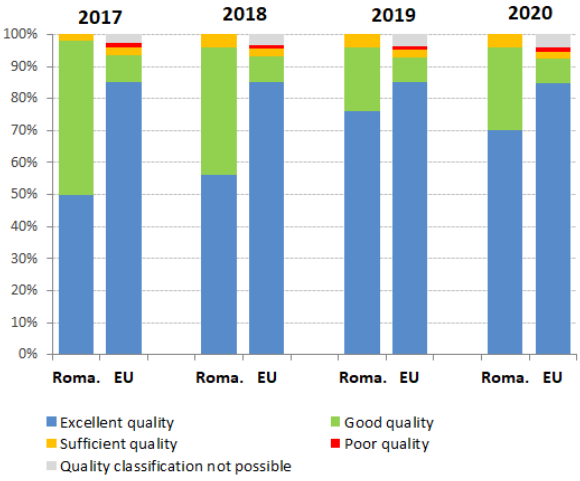


Figure 31: Romania, bathing water quality 2017-2020[115]



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

Nitrates Directive

The 2019 EIRmentions that Romania has a revised action programme in place implementing the Nitrates Directive and applying to the whole national territory and that legislative modifications had brought improvements. The Romanian authorities have decided to apply the whole territory approach instead of identifying nitrate vulnerable zones and changed some measures of the Action Programme, with significant improvements. However, in Romania, in 2016–2019, groundwater quality slightly improved compared to the previous reporting period, with around 15% of stations exceeding the annual average of 50 mg nitrate per l. Romania also needs to tackle eutrophication and would need to take remediation actions. There are also hotspots where pollution should be urgently diminished[116]. Too much nitrogen or phosphorus in water can cause algal blooms. This may adversely affect fish, bathers, and the wider environment negatively. Romania has designated all of its territory as sensitive areas and decided that agglomerations over 10 000 p.e. discharging into sensitive areas must apply biological treatment with nitrogen and phosphorus removal[117].

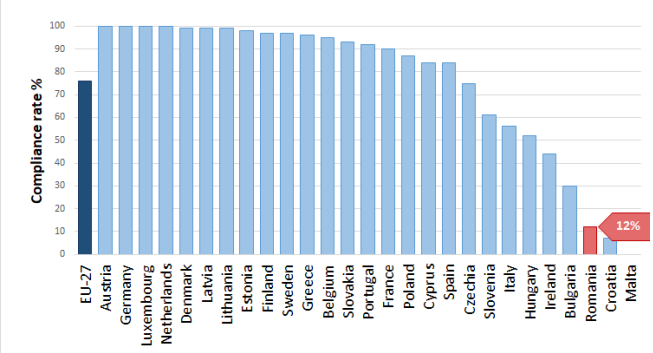
Urban Waste Water Treatment Directive

Urban wastewater needs to be treated before discharge so it does not pollute the environment. In Romania,

[111] OJ L 330, 5.12.1998, p. 32–54.
[112] OJ L 435, 23.12.2020, p. 1–62.
[113] European Environment Agency, 2021. State of bathing water — European Environment Agency (europa.eu) , p. 17.
[114] European Environment Agency, Bathing Water Quality in 2020, 2022.
[115] European Environment Agency, European Bathing Water Quality in 2017, 2018, 2019, 2020.
[116] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021DC1000&from=EN.
[117] Wise, https://water.europa.eu/countries/uwwt/romania.

urban wastewater is treated in 642 plants across the country before it is discharged. Romania has, over the years, encountered difficulties in meeting its obligations under the Urban Wastewater Treatment Directive[118]. Based on the last reporting, it appears that further efforts need to be stepped up to provide for the collection of additional 7.16 million p.e of urban wastewater (35.9%), biological treatment to additional 12.87 million p.e of urban wastewater (65.7%), and biological treatment with nitrogen and phosphorus removal to additional 7.72 million p.e. of urban wastewater (58.8%).[119] Overall, only 12% of the urban wastewater in Romania is treated according to the requirements of the UWWTD. This is below the EU average of 76%.

Figure 32: The 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')[120]



Despite improvements in compliance over the years, for which the use of EU funding has been fundamental, the Commission sent a reasoned opinion to Romanian for failure to comply with the Urban Wastewater Treatment Directive in relation to the agglomerations above 10 000 population equivalent (p.e.), which benefitted from a transitional period in accordance with Romania's Accession Treaty. In fact, 185 large agglomerations are still not in conformity with the urban wastewater collection obligations, while 188 large agglomerations do not comply with secondary treatment obligations, and 189 large agglomerations with the tertiary treatment obligations[121].

Romania has one of the lowest compliance rates with EU water legislation (6%) and faces the highest investment needs to reach and maintain compliance. Efforts need to be stepped up to extend and modernise drinking water and wastewater infrastructure, and to ensure a sustainable service at a reasonable price. Although there has been some progress in recent years, water leakages in the public network and the lack of urban wastewater treatment are ongoing problems.

The Romanian RRP has identified some key reforms to support the water sector, particularly to strengthen the regulatory framework for the sustainable management of the water and wastewater sectors and accelerate public access to quality services. The objective of this reform is to improve the capacity of regional water infrastructure operators and to improve the quality and efficiency of cooperation between them and local authorities/inter-community development associations (IDAs), and water and channel infrastructure owners. In view of this, a number of legislative and regulatory changes have been identified. The reconfiguration of the current economic mechanism of the National Water Administration (ANAR) is another important reform to ensure the modernisation and maintenance of the national water management system and proper implementation of the Water Framework Directive and Floods Directive.

In the 2019 EIR, Romania has received several priority actions in the water sector aimed in particular at strengthening the monitoring of surface water by covering all relevant quality elements in all water categories, and better implementing the UWWTD requirements, in particular by establishing a realistic and efficient implementation plan spanning the coming years, including forecasted financing sources. Very limited progress has been made. A realistic and efficient implementation plan covering the coming years and including forecasted financing sources has not yet materialised.

2022 priority actions

- Strengthen the monitoring of surface water by covering all relevant quality elements in all water categories, including hydromorphological quality elements and improve quantitative and chemical groundwater monitoring.
- Ensure that projects with the potential to affect the status of water bodies are thoroughly assessed and justified in line with the requirements in the Water Framework Directive (Article 4(7)).
- Improve the implementation of the Urban Waste Water Treatment Directive requirement i of more stringent treatment of wastewater for discharge into sensitive areas, and ensure investments to enable the appropriate treatment of wastewater from big cities.
- Complete the implementation of the Urban Waste Water Treatment Directive for all agglomerations, by building up the necessary infrastructure:. Step up efforts to ensure implementation of the Urban Waste Water Treatment Directive, in particular by having a realistic and efficient implementation plan covering

[118] https://water.europa.eu/countries/uwwt/romania.
[119] Wise, https://water.europa.eu/countries/uwwt/romania.
[120] European Commission, WISE Freshwater, 2021.
[121] https://ec.europa.eu/commission/presscorner/detail/en/inf_22_601.

the coming years, including forecasted financing sources.

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'[122] which led to some systemic changes in EU chemicals legislation. The strategy is part of the EU's zero-pollution ambition – a key commitment of the European Green Deal

The EU's chemicals legislation[123] provides a 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 Regulations[124], 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. 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 law enforcement. Recorded compliance levels in Member States seem to be quite stable over time, but with a slight 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 enforcement[125] 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 Romania lies with the following authorities[126]:

- National Environmental Guard,
- Labour Inspection and
- National Consumer Protection Authority (for the CLP Regulation).

Romania has drawn up but partially implemented both REACH and CLP enforcement strategies[127]. They consist of:

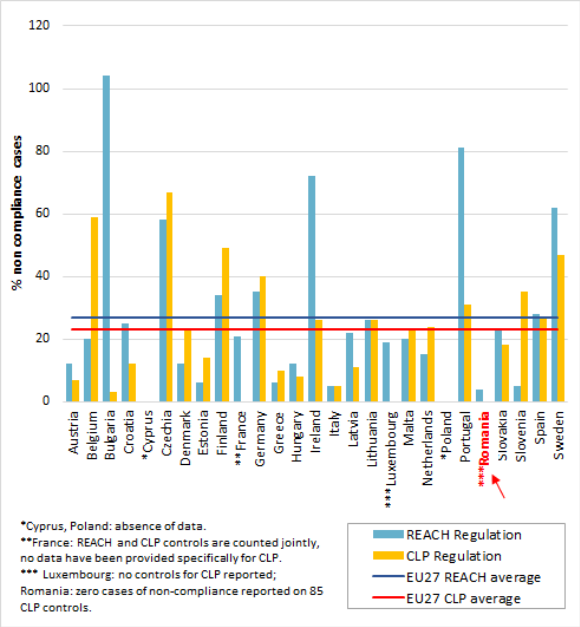
- annual enforcement planning,
- priorities for enforcement, monitoring actions, enforcement activities, enforcement reports, performance indicators and external reporting.

As a rule, all infringements of REACH are considered 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.

Romania allocates 90 staff members to REACH and CLP enforcement, with 384 man-hours/year, plus 43 labour inspectors[128]. At 476 in 2019, the number of REACH and CLP controls remains well below the EU average Most of the REACH controls done are proactive (inspections), compared with reactive/non-routine controls (i.e. investigations in response to complaints, accidents, and referrals). The actual level of expertise has increased since the last reporting, but it is still not sufficient for some REACH-related tasks, namely for risk management and some specific areas of concern such as nanomaterials and endocrine disruptors. The low percentage of non-compliance cases out of the total number of controls should be underlined[129].

[122] COM(2020) 667 final.
[123] REACH: OJ L 396, 30.12.2006, p.1. - CLP: OJ L 252, 31.12.2006, p.1
[124] European Commission, Final Report, on the operation of REACH and CLP, Final report REACH-CLP MS reporting 2020.pdf (europa.eu).
[125] European Commission, REACH and CLP enforcement: EU level enforcement indicators.
[126] Final report REACH-CLP MS reporting 2020.pdf (europa.eu), p. 71.
[127] Final report REACH-CLP MS reporting 2020.pdf (europa.eu), p. 76.
[128] European Commission, Final Report, on the operation of REACH and CLP, Final report REACH-CLP MS reporting 2020.pdf (europa.eu), p. 75.
[129] Final report REACH-CLP MS reporting 2020.pdf (europa.eu), p. 87-88.

Figure 33: 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 average[130]



2022 priority action

- Upgrade administrative capacities to implement and enforce a zero tolerance to non-compliance.

[130] 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 climate-neutral 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 2010[131] and sets binding GHG emission standards for different vehicle categories[132]. 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 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 policies[133], 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

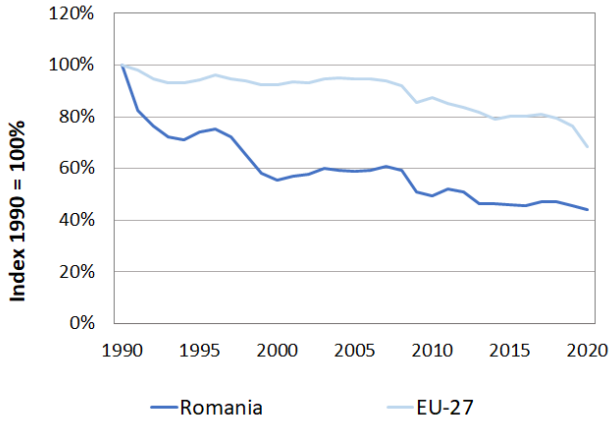
Romania has an integrated National Energy and Climate Plan (NECP) for 2021-2030. The work builds on long-term energy and climate plans.

Romania's RRP allocates 41.03% of the plan to climate objectives and outlines crucial reforms and investments to speed up the green transition, including investments for renewable energy and the renovation of public and private buildings.

In terms of adaptation priorities, the National Climate Change and Low Carbon Green Growth Strategy focuses on measures and actions for 12 priority sectors and identifies different types of risks and climate related events such as landslides, soil erosion, storm damage, drought, floods, disease outbreaks, or the lack of access to water resources.

Romania's total greenhouse gas emissions have considerably decreased compared to 1990. Economy-wide greenhouse gas emissions decreased by 59% between 1990 and 2020. Emissions per capita are lower than the EU average. However, the emission intensity of its economy is still twice as high as the EU average. The production of goods and services in Romania remains very carbon and energy intensive.

Figure 34: Total greenhouse gas emissions (incl. international aviation) in Romania, 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 Legislation[134]. Under EU legislation, Romania has a target of limiting the increase of GHG emissions in the non-ETS sectors (buildings, road and domestic maritime transport, agriculture, waste, and small industries) to +19% by 2020 and reducing emissions by 2% by 2030 compared to 2005 levels.

The country's non-ETS emissions in 2019 were lower than its 2020. In its National Energy and Climate Plan, Romania intends to achieve the same reductions as its current Effort Sharing target for 2030 of -2%.

[131] 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.

[132] Directive 98/70/EC.

[133] Article 29 of Regulation (EU) 2018/1999.

[134] Regulation (EU) 2018/842

Figure 35: Emissions and targets under the Effort Sharing Decision/ Effort Sharing Regulation in Romania, 2020 and 2030 as percentage change from 2005

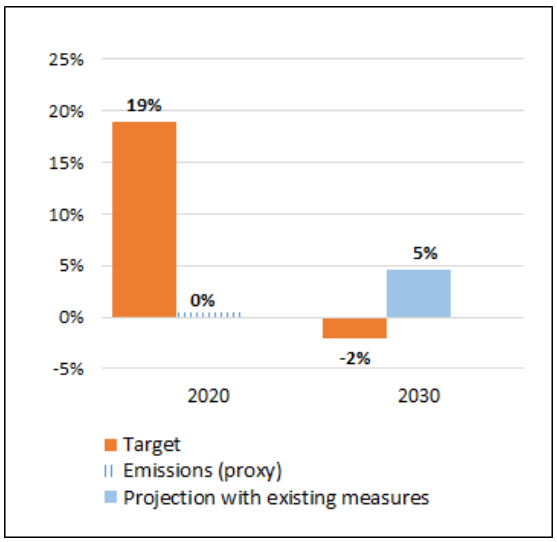
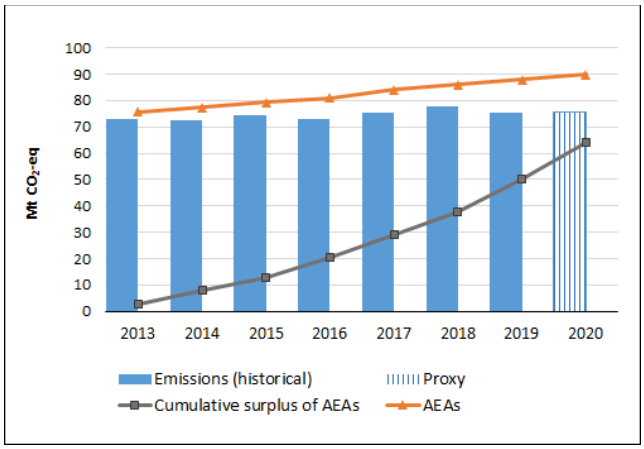


Figure 36: Emissions, annual emission allocations (AEAs) and accumulated surplus/ deficit of AEAs under the Effort Sharing Decision in Romania, 2013-2020

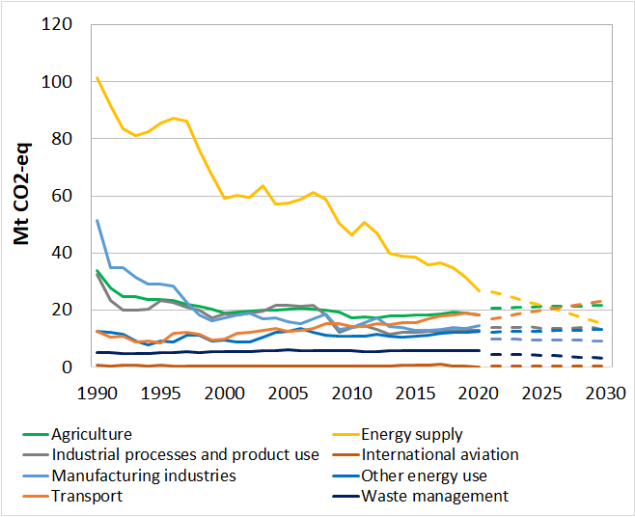


Key sectoral developments

In road transport, the GHG intensity of vehicle fuels in Romania fell by 2,8%. The country needs to act swiftly to meet the current reduction target by 6%. There are several types of action that Member States can take in this regard, for example, further expanding the use of electricity in road transport, supporting the use of biofuels, in particular advanced biofuels, incentivizing the development and deployment of renewable fuels of non-biological origin and reducing upstream emissions before refining processes.

Transport in 2019 in Romania represented 16% of the total greenhouse gas emissions. Emissions have increased by 40% compared to 2005.

Figure 37: Greenhouse gas emissions by sector in Romania[135] – historical emissions 1990-2019, projections 2021-2030[136]



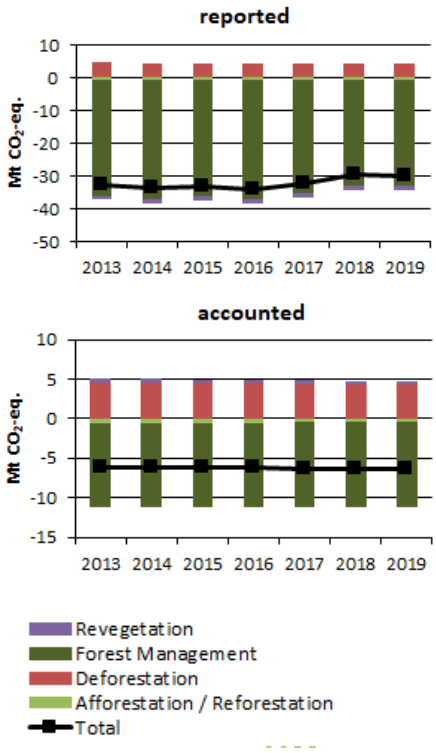
To reduce emissions in buildings, improving energy efficiency of the building stock is needed. It also creates increased energy savings. This is even more relevant considering that energy consumption in buildings in Romania is at 45% of the total energy consumption in the country (compared to the 40% EU average. The focus in the RRP on the energy efficiency of private and public buildings, with about EUR 1.72 billion, is expected to contribute to facilitating the green transition.

In the Land Use, Land Use Change and Forestry (LULUCF) sector, Romania is projected to see decreasing net removals by 2030. Reported quantities under the Kyoto Protocol for LULUCF sector in Romania show net removals of -32.2 Mt CO_2-eq on average for the period 2013 to 2019. With this, Romania accounts for 9.3% of the annual average sink of -344.9 Mt CO_2-eq of the EU-27. Accounting for the same period depicts net credits off -6.3 Mt CO_2-eq on average, which corresponds to 5.4% of the EU-27 accounted sink of -115.0 Mt CO_2-eq.

[135] 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.

[136] European Environmental Agency, Total GHG trends and projections.

Figure 38: Reported and accounted emissions and removals from LULUCF in Romania [137]



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 amounted to over EUR 3, 6 billion. In Romania, 50% of revenues is earmarked for climate change and energy purposes and an additional 6% is earmarked for GHG reduction projects, with 15% going to indirect carbon compensation and 29% to the general budget.

2022 priority actions

- Accelerate the decarbonisation of the transport sector.
- Improve energy efficiency in primary energy consumption and final energy consumption.
- Ensure the sustainability of bioenergy use.
- Increase the uptake of renewable energy. Despite a high share of renewable energy, Romania's energy supply remains the most significant source of greenhouse gas emissions.
- Promote the electrification of the car fleet as it poses an opportunity for Romania's economy and jobs since automotive manufacturing is a significant employer.
- Ensure a just transition as in relative terms Romania has a very high share of employment in fossil fuel extraction, notably coal mining.

[137] 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 gaps .

Post-2020, environmental measures will also be supported by the EU's COVID-19 Recovery Fund (via the RRF) 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)[138] will also be reflected in the EU budget. Overall environmental investment gaps (EU-27).

Overall environmental investment gaps (EU27)

The EU's green transition investment needs cover a range of interlinked areas. The additional investment needs over 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 at EUR 390 billion per annum (EU27)[139], with a further EUR 130 billion to deliver the EU's core environmental objectives[140]. Climate adaptation costs can also be significant, reaching a total of EUR 35-62 billion (narrower scope) or EUR 158-518 billion (wider scope) per year[141]. Those investment needs do reflect the implementation objectives to 2020 and to 2030 (except for climate adaptation costs that are expected to stay for longer time horizon).

A preliminary update of the EU's core environmental investment gap is provided in Table 1[142]. Almost 40% of the environmental investment needs relate to dealing with pollution, accounting for nearly two-thirds of the total gap if combined with water management. The investment gap in circular economy and waste is estimated between 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 EU27's environmental investment gaps, by environmental objective, 2021-2030 (per annum)[143]

Environmental objective	Estimated investment gap (EU-27, p.a.)	
	EUR billion	%
Pollution prevention & control	42.8	39%
Water management & industries	26.6	24%
Circular economy & waste	13.0	12%
Biodiversity & ecosystems [144]	21.5	20%
R & D & I and other	6.2	6%
Total	**110.1**	**100%**

Environmental investment needs in Romania

Romania has significant investment needs in the water and waste sectors and for ensuring biodiversity protection. Efforts also need to be stepped up to address air quality issues by ensuring that the transport and energy sectors become more sustainable. Administrative capacities issues and absorption problems hamper the

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

[139] SWD(2021)621, accompanying proposal COM (2021)557 to amend the REDII Directive (EU) 2018/2001.

[140] SWD(2020) 98 final/2.

[141] SWD(2018)292. Impact assessment accompanying the Proposal for the LIFE Regulation (COM (2018)385).

[142] With decreases due to Brexit and some reconciliation among the objectives. Source: 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.

[143] 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.

[144] 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.

adequate use of the funds available in the environmental field. Romania also has prioritization and planning issues.

Pollution prevention & control

The EU's first Clean Air Outlook[145] under the clean air programme estimated that the total air pollution control costs to reach the NECD emission reduction requirements (ERRs) by 2030 amount to EUR 1.75 billion per year for Romania, including EUR 1.27 billion a year on capital costs. [146].

The second Clean Air Outlook suggests[147] that implementing all 2018 legislation, the 2030 climate/energy measures and the NAPCP shall largely facilitate reaching those targets by 2030 (except for ammonia for 15 Member States, including Romania). Nevertheless, the NEC Directive also requires certain emission reductions already for the period 2020-2029, including to reach pro-rata progress towards the 2030 targets by 2025 (based on a linear or other trajectories).

Water management

Significant investment is still needed in Romania to accelerate compliance with the Water Framework Directive (WFD) and the Floods Directive. Romania is making little progress on compliance with the Urban Waste Water Directive (UWWTD). [148]

While compliance with EU water legislation has been the over-arching priority for the Romanian water sector for almost two decades, complying with the UWWTD has proved by far the most difficult task and it remains extremely challenging, despite massive sanitation investments.

About 64% of natural water bodies and 38% modified/artificial water bodies meet the standard of "good ecological status" or better required by the EU Water Framework Directive. However, there are major chemical and quantitative issues[149].

Given that tariff affordability is already stretched in Romania, if compared to other Member States, there may be limited scope for raising funds to finance investment needs from water users. Significant investments are needed to comply with the revised Drinking Water Directive, extend access to vulnerable populations and improve network efficiency (reduce leakage), and to comply with the UWWTD. A recent OECD study assessed the investment needs of the EU water industry (to meet the legal requirements for drinking water and sanitation), and found that the cumulative expenditure needed for Romania will reach approximately EUR 21.6 billion (EUR 6.5 billion for the Drinking Water Directive + EUR 15.1 billion for the Urban Waste Water Treatment Directive) for 2020-2030. Of this, only EUR 5.6 billion was found to be capital investment need (26%) which is under the EU-average of 47% (of the total expenditure need). In annual terms, this implies an annual financing need of the water industry of around 2.2 billion euros (drinking water and sanitation), with at least 560 million of capital investment need per year (with almost 80% of that related to wastewater). Moreover, the recent 6th Water Framework Directive and Floods Directive Implementation Report[150] and the financial - economic study[151] accompanying it, are also a relevant source of information in this domain. Irrespectively, the water investment plan (the cohesion enabling condition) should provide needs and costs estimates.

Waste & circular economy

The EU waste study comprehensively assessed the investment needs for municipal and packaging waste. According to this, Romania needs to invest around EUR 610 million in the waste sector in 2021-2027 additionally to baselines. This increases to EUR 893 million in 2021-2035, implying an annual investment need of EUR 60-90 million a year on average[152]. The investment is necessary in collection, biowaste treatment, recycling reprocessors, waste sorting facilities and waste registry digitalisation, but does not include key waste streams (plastics, textiles, furniture) or the investment potential arising from a higher circular economy uptake (in sectors as housing, transport, or food).

Priority areas remain those identified in the Early Warning Report for Romania for 2018[153], notably waste management plans, extended producer responsibility

145 https://ec.europa.eu/environment/air/pdf/clean_air_outlook_overview_report.pdf

146 Covering the reductions of and the emission ceilings for 5 atmospheric pollutants, SOx, NOx, PM2.5, NH3 and VOC by 2030, compared to 2005. Source: Progress towards the achievement of the EU's air quality and emissions objectives, IIASA 2018, p. 29. Requirements are based on Directive (EU) 2016/2284.

147 COM (2021) 3 Final and Report Annex.

148 Implementation of the Water Framework Directive (2000/60/EC), the Environmental Quality Standards Directive (2008/105/EC amended by Directive 2013/39/EU) and the Floods Directive (2007/60/EC): Report-implementation-WaterFrameworkDirective.pdf.

149 OECD - Water Supply Sanitation - Country Factsheet

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

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

152 European Commission, Study on investment needs in the waste sector and on the financing of municipal waste management in Member States, 2019.

153 European Commission, Early Warning Report, Waste.

schemes, separate collection, economic incentives, technical support for local authorities, communication and awareness-raising, and spending of EU funds[154].

The future EU allocation for the sector is expected to decrease under the new programming period, to cover only a small part of the necessary budget for investments, while important investments are still necessary. Consequently, Romania is advised to make the best use out of the available funds.

Biodiversity & ecosystems

Prioritised action frameworks (PAFs) adopted by the Member States according to Article 8 of the Habitats Directive present the conservation priorities for the Natura 2000 network and its supporting green infrastructure, their costs and planned funding sources for the period corresponding to the current multiannual financial framework (MFF) (2021-2027). For Romania, the total identified needs amount to EUR 543.7 million per year, including EUR 150 million annual one-off costs[155]. Priority areas include the elaboration of the new management plans for Natura 2000 sites, the updates to existing management plans, the implementation of management plans, the strengthening of the institutional capacity of ANANP, the restoration of wetland and grassland habitats and associated species, the restoration of 9110 beech stands, the prevention of forest fragmentation and maintenance of the integrity of forest corridors outside Natura 2000 sites and the restoration of the longitudinal connectivity of rivers in Natura 2000 sites and outside of them. Additional costs to implement the Biodiversity Strategy to 2030, concerning increased protection and restoration, are not included in the above.

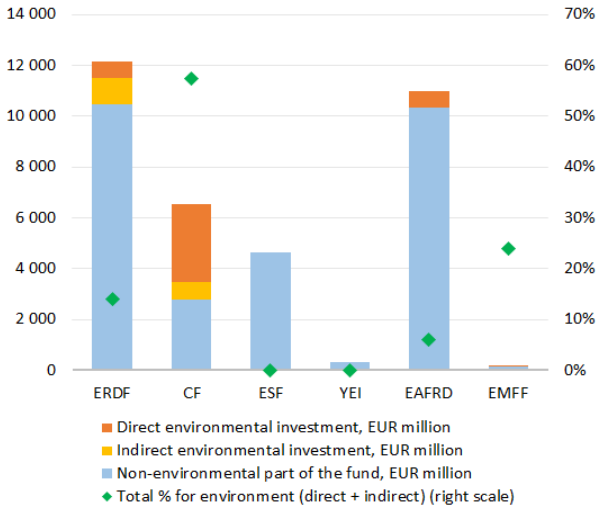
EU environmental funding 2014-2020

The multiannual financial framework (MFF) for 2014-2020 allocated almost EUR 960 billion (in commitments, 2011 prices)[156] 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) Funds[157]. The 2014-2020 MFF budget was subsequently topped up with over EUR 50 billion (current prices) from the REACT-EU programme (for cohesion-policy action against COVID-19)[158].

Romania received EUR 34.8 billion from the ESI Funds over 2014-2020 to invest in job creation and a sustainable and healthy European economy and environment. The planned direct environmental investment amounted to EUR 4.4 billion, with a further EUR 1.8 billion identified as indirect environmental investment value, totaling EUR 6.1 billion.

Figure 40 provides an overview of (planned) individual ESI Funds earmarked for Romania (EU amounts, without national amounts).

Figure 39: ESI Funds allocated to Romania, including environmental investments, 2014-2020[159]



[154] https://op.europa.eu/en/publication-detail/-/publication/4d5f8355-bcad-11e9-9d01-01aa75ed71a1.

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

[156] Council Regulation (EU, Euratom) No 1311/2013.

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

[158] Regulation (EU) 2020/2221.

[159] European Commission, DG Environment - Data analysis, DG Environment 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. Cut-off date for data: December 2021. 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).

Table 2: Direct and indirect environmental investments under the ESI Funds in Romania, 2014-2020[160]

Instrument	Allocations for the environment (EUR million)
Under Cohesion policy (ERDF + CF)	**5 447.7**
Direct environmental investments	3 686.8
water	2 224.3
waste	318.2
air quality	390.6
biodiversity and nature	250.3
land rehabilitation	24.7
climate and risk management	478.7
Indirect environmental investments	1 760.8
renewable energy	19.6
energy efficiency	440.9
other energy[161]	22.6
sustainable transport	1 212.9
sustainable tourism	64.9
Under EAFRD/rural development	**651.0**
Direct environmental investments	650.3
water	385.5
climate and risk management	264.8
Indirect environmental investments	0.7
renewable energy	0.7
Under EMFF	**40.1**
Direct environmental investments	40.1
environment protection & resource efficiency	40.1
Indirect environmental investments	0.04
business development, R&I	0.04
Under ESI Funds total	**6 138.8**
Direct environmental investments	4 377.2
Indirect environmental investments	1 761.6

Funding for the environment from the ESI Funds has also been supplemented by other EU funding programmes available to all Member States, such as the LIFE programme or the Horizon 2020, and some European Investment Bank (EIB) financing, adding up to an estimated total of EUR 6.6 billion of EU environmental financing for Romania in 2014-2020.

The LIFE programme[162] is entirely dedicated to environmental and climate objectives. It finances demonstration and best practice actions for green solutions to be deployed. In the 2014-2020 period, Romania has received EU support for four nature LIFE projects, with EUR 12.8 million from the LIFE programme (out of 1 028 EU27 LIFE projects with the total EU contribution of EUR 1.74 billion)[163].

In 2014-2020, the Horizon 2020 allocated about EUR 13.0 million for Romania, in particular for circular economy, including raw materials, nature and resources, climate action, earth observation and cultural heritage, which is about 4.3 % of Romania's total allocation[164]. From the European Fund for Strategic Investments (EFSI), Romania received EUR 41.3 million for direct environmental investments out of its total allocation (EUR 641.4 million).[165] Romania received EUR 421.5 billion for direct environmental investments (specifically, for water and sewerage and some for waste) from the EIB out of the total EIB loans for Romania (EUR 5.3 billion)[166]. The country ranks 16th in terms pf in total EIB lending.

In 2020, the EIB provided EUR 24.2 billion to fight climate change at EU level, 37% of its total financing and EUR 1.8 billion (3% of its financing) for the environment [167] [168].

EU environmental funding 2021-2027

The 2020 European Green Deal Investment Plan (EGDIP) calls upon EUR 1 trillion green investments (public and private) by 2030. The multiannual financial framework (MFF) 2021-2027 and the NextGenerationEU will mobilise EUR 2.018 trillion (in current prices) to support the COVID-19 recovery and the EU's long-term priorities, including environmental protection.[169] Following the EU Green Deal's[170] 'do no harm' pledge and the Interinstitutional Agreement on the 2021-2027 MFF[171], 30% of the EU budget will support climate efforts and

[160] 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 covers the full range of ESI Funds. See also previous footnote.

[161] Intelligent energy distribution systems (smart grids) and high efficiency co-generation and district heating, based on intervention field 53 and 54 respectively (with 40% environmental coefficients) of Regulation (EU) 2021/1060, Annex I.

[162] European Commission, LIFE Programme.

[163] Source: CINEA.

[164] Source: EASME, https://sc5.easme-web.eu/, accessed: 15-12-2021.

[165] Approved and signed EFSI financing - EIB, 2015-2020: Source: https://www.eib.org/en/products/mandates-partnerships/efsi/index.htm.

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

[167] 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.

[168] EIB 2021 Activity Report.

[169] European Commission, 2021-2027 long-term EU budget & NextGenerationEU.

[170] COM/2019/640 final.

[171] Interinstitutional Agreement, OJ L 433I.

7.5% (as of 2024) and 10% (as of 2026) biodiversity 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)[172], strengthens non-financial reporting requirements, facilitates green bond issuance (by the EU green bond standard[173]). Reinforced by the Renewed Sustainable Finance Strategy (2020)[174], it will increase investment flows to climate and environment. In support of financing climate adaptation, the new strategy on adaptation to climate change[175] can facilitate closing the insurance protection gap from non-insured climate-related events[176]. The EIB will align 50% of its lending with climate and environment by 2025[177], with a EUR 250 billion contribution to the Green Deal Investment Plan by 2027.

Table 3 below provides an overview of the planned EU support for Romania under various EU funding instruments.

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

Instrument	Country funding allocation (million EUR)
Cohesion policy	**Total: 29 219.2[178]** ERDF: 17 069.6 CF: 3 537.7[179] ESF+: 8 239.3 ETC (ERDF): 372.6[180]
Just Transition Fund	**2 139.5[181]**
EAFRD/rural development under CAP Strategic Plans 2023-2027[182]	**4 835.2[183]**
European Maritime, Fisheries and Aquaculture Fund (EMFAF)	**162.5[184]**
Recovery and Resilience Facility (RRF) 2021 – 2026	14,240 billion **(grants)** 14,942 billion (**loans)[185]**

Measures supporting climate change objectives in Romania's recovery and resilience plan account for EUR 11 969.73 million, which represent 41.03% of the plan's total allocation of EUR 29 182 million (EUR 14 240 million of grants and EUR 14 942 million of loans). This is a bit below the level of 45.3% measured for the EU-27 member states. However, Romania also stands above the 37% climate expenditure target, the minimum level required under the RRF Regulation[186].

Some examples of areas where RRF funding will become available can be found below.

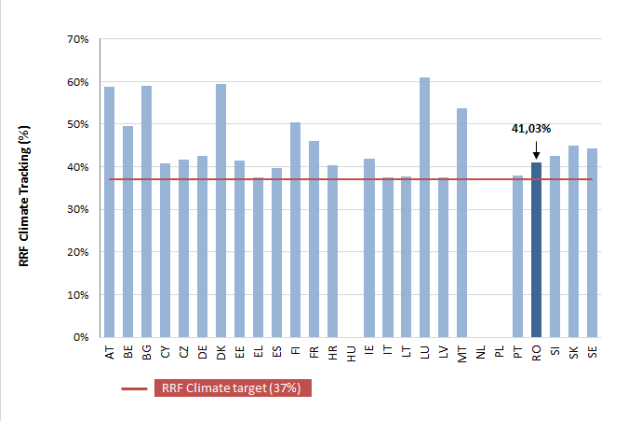
It includes reforms to phase-out coal power production by 2032, unlock renewable energy and energy renovation potential, sustainable mobility, water and waste management and biodiversity, which are essential steps for decarbonisation and for strengthening the circular economy. Investments in renewable energy, energy efficiency of public and private buildings, environment, and dedicated measures on the circular economy will also enable the green transition in key sectors of the

[172] https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en
[173] EU Green Bond Standard - 2021/0191 (COD).
[174] COM (2021) 390 Final - European Commission, Strategy for Financing the Transition to a Sustainable Economy.
[175] COM (2021) 82 final.
[176] 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 the insurance protection gap for natural catastrophes. See: The pilot dashboard on insurance protection gap for natural catastrophes | Eiopa (europa.eu).
[177] EIB Climate Bank Roadmap 2021-2025, November 2020.
[178] European Commission, 2021-2027 Cohesion policy EU budget allocations.
[179] The transfer to the Connecting Europe Facility (Transport) is not included.
[180] Interreg initial allocations per Member State including ETC transnational and ETC cross-border co-operation.
[181] European Commission, 2021-2027 Cohesion policy EU budget allocations.
[182] CAP strategic plans | European Commission (europa.eu).
[183] Annex XI to Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013, PE/64/2021/REV/1, OJ L 435, 6.12.2021, p. 1–186.
[184] Annex V to Regulation (EU) 2021/1139 of the European Parliament and of the Council of 7 July 2021 establishing the European Maritime, Fisheries and Aquaculture Fund and amending Regulation (EU) 2017/1004, OJ L 247, 13.7.2021, p. 1–49.
[185] Recovery and resilience plan for Romania | European Commission (europa.eu).
[186] Regulation (EU) 2021/241

economy. Green challenges are addressed in the plan mostly under components 1 to 6 – dealing with water, waste management, forests and biodiversity, sustainable transport, renovation, and energy. Similarly, under component 10 (Local Fund - part of the social and territorial cohesion pillar), the measures to support sustainable urban mobility, the renewals of public transport fleets, and infrastructure for more sustainable and more secure urban mobility, are also expected to contribute to the green transition.

Overall, the plan ensures that direct actions can be taken at local levels for the green transition, while protecting or restoring the environment, and in compliance with the Do No Significant Harm principle[187].

Figure 40: Climate expenditure in RRPs, 2021-2026[188]



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 Romania for the 2021-2027 period, there are other EU level funding programmes which are open to all Member States on a competitive basis. These include, among others, LIFE programme [189] (EUR 5.4 billion), Horizon Europe (EUR 95.5 billion)[190], the Connecting Europe Facility (EUR 33.7 billion)[191] or the funds to be mobilised via the InvestEU[192]. They will also support the green transition, and in particular the LIFE programme which is exclusively dedicated to the environment, nature conservation and climate action. Furthermore, they will support, among others, research and innovation activities for environmental protection (Horizon Europe), clean transport (the Connecting Europe Facility) or sustainable infrastructure (InvestEU)[193].

National environmental protection expenditure

Total national environmental protection expenditure (including all relevant current and capital expenditure)[194] in the EU27 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 Romania spending 0.8%.

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, while Romania dedicated 0.3%. During 2014-2020, this amounted to around EUR 376 billion of environmental investment in the EU-27, and to EUR 6.13 billion in Romania.

[187] European Commission, Technical Guidance on the DNSH Principle

[188] European Commission. The contributions to climate objectives have been calculated using Annex VI of the RRF Regulation (EU) 2021/241.

[189] European Commission, LIFE Programme.

[190] European Commission, Multiannual Financial Framework 2021-2027 (in commitments) - Current prices.

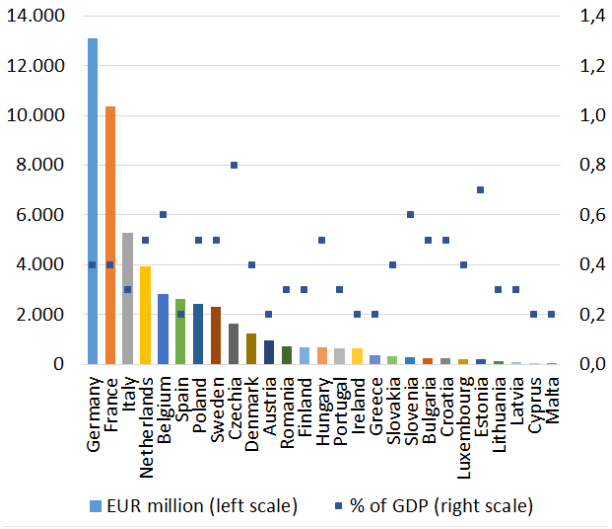
[191] Regulation (EU) 2021/1153 of the European Parliament and of the Council of 7 July 2021 establishing the Connecting Europe Facility and repealing Regulations (EU) No 1316/2013 and (EU), No 283/2014 (Text with EEA relevance), OJ L 249, 14.7.2021, p. 38–81.

[192] European Commission, Multiannual Financial Framework 2021-2027 (in commitments) - Current prices.

[193] European Union, InvestEU.

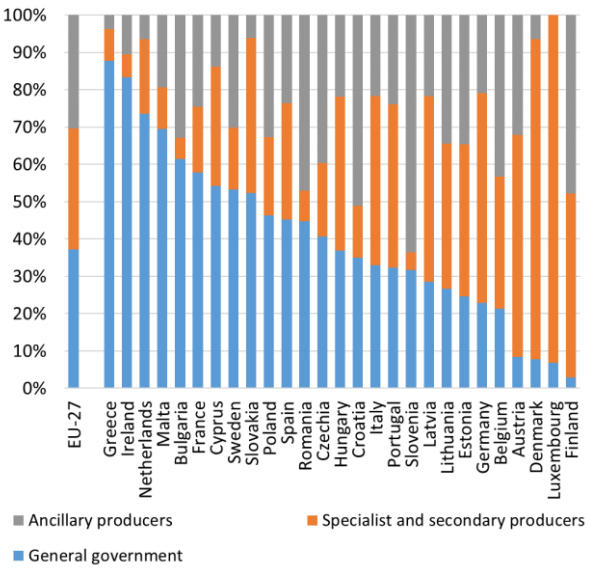
[194] At economy level, including final consumption, intermediate consumption and capital expenditure of households, corporations and governments related to environmental protection goods and services. It excludes EU funds, while may include some international expenditure beyond domestic. Data source: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

Figure 41: Direct and indirect environmental protection investments in the EU-27 (2018, EUR million and % of GDP), 2018[195]



By institutional sector, government provided around 45% of the country's environmental protection investments, while specialist producers of environmental protection services (e.g. waste and water companies) provided 8%, and the classical industry (or business) sector that normally pursues environmental activities as ancillary to their main activities provided 47%. At EU level, 37% comes from governments, 33% from specialist producers and 30% from industry (business).

Figure 42: EU-27 Member States' environmental protection investments (Capex) by institutional sectors (Total economy = 100%), 2018[196]



A breakdown of investment by environmental topic is available only partially, at institutional sector-level (rather than at economy-level), due to different reporting patterns At Romania's general government level, the priority of environmental protection investments was wastewater (75%), followed by waste management (22%) in 2018. Specialist producers also focused on waste management, with 95% of their environmental protection investments. For industry (business), the key priority was the protection of air (58%), followed by water and soil protection (24%) and wastewater (11%), to name the most significant items.

The total annual European green bond issuance [197] in 2020 was USD 156 billion (EUR 137 billion[198]), growing from USD 117 billion (EUR 105 billion) in 2019, also including some non-EU European countries. By EU-27 Member States only, the 2020 annual green bond issuance was EUR 124 billion. 83% of the green bonds issued by European countries served energy, buildings, or transport objectives between 2014-2020, 8% supported water and waste, with further 6% supporting land use – with links to ecosystem conservation & restoration, based on the Climate Bonds Taxonomy being broadly

[195] Eurostat, Environmental Protection Expenditure Account, 2021.

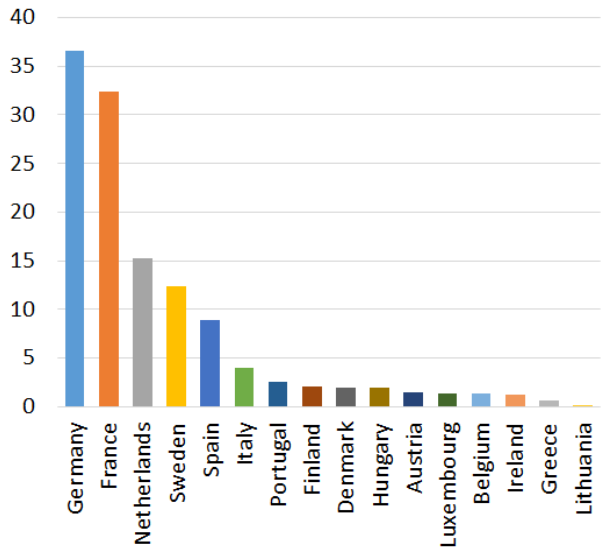
[196] Eurostat, Environmental Protection Expenditure Accounts (env_epe).

[197] Green bonds were created to fund projects that have positive environmental and/or climate benefits. The majority of green bonds issued are green or asset-linked bonds. The very first green bond was issued in 2007 with the AAA-rated issuance from multilateral institutions, the European Investment Bank (EIB) and the World Bank.

[198] At Eurostat's annual average EUR/USD exchange rates.

similar to the EU Taxonomy[199]. Of this 2020 annual EU green bond issuance, Romania had no issuance (data available for 16 EU Member States, see Figure 43).

Figure 43: Annual EU green bond issuance in 2020 (EUR billion)[200]

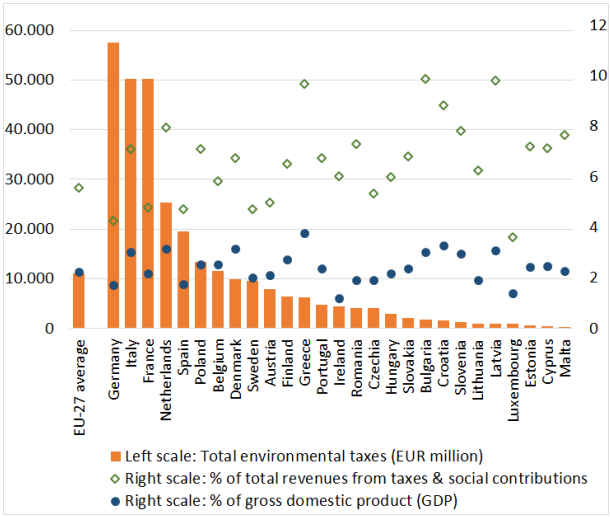


Green budget tools

Green taxation and tax reform

Romania's revenue from environmentally related taxes in absolute terms remains around the lowest at the EU average in 2020, as the graph shows. Of this amount, energy and transport taxation represent the highest share with 92.43% and 7.35% in 2020, while pollution/resource tax was 0.22%. In terms of the percentage of GDP, environmental taxes were 1.92% in 2020 (EU average 2.24%).

Figure 44: Environmental taxes in the EU27, 2020[201]



The 2019 European Green Deal underlines that well-designed tax reforms can boost economic growth and resilience, foster a fairer society and a just transition, by sending the right price signals and incentives to economic actors. The Green Deal creates the context for broad-based tax reforms, fossil fuel subsidies removal, shifting the tax burden from labour to pollution, also accounting for social considerations. The application of the 'polluter pays principle' (PPP)[202] stipulating that polluters should bear the cost of measures to prevent, control and remedy pollution; is facilitated by the EU Commission's TSI flagship[203] on greening taxes.

There is potential for increased environmental taxes in Romania. For instance, by putting in place 'pay-as-you-throw' schemes to increase rates of reuse and recycling. Romania has introduced a deposit refund system for reusable packaging. It has also put in a place a system of water supply and sewage tariff[204].

The Romanian recovery and resilience plan recognised the need for a shift in taxation. To make this happen, it foresees the entry into force of the legislative acts necessary for an operationalisation of a unitary waste management, including a landfill tax, a legislative package for the implementation of a new distance-based charging system for heavy duty vehicles (trucks), and higher ownership taxes for most polluting passengers'

[199] Interactive Data Platform at www.climatebonds.net. Further information on Climate Bonds Taxonomy: https://www.climatebonds.net/standard/taxonomy.
[200] Climate Bonds Initiative, 2022.

[201] Eurostat, Environmental taxes accounts (env_eta).
[202] 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".
[203] European Commission, Greening taxes- applying polluter pays principle in practice, green budgeting TSI participation.
[204] European Commission, Ensuring that polluters pay.

vehicles (cars/buses/coaches) based on the 'polluter pays' principle and green taxation principle. An analysis of the tax framework in view of expanding green taxation and shifting taxation towards green taxes, taking distributional impact into account, is also planned.

Environmentally-harmful subsidies

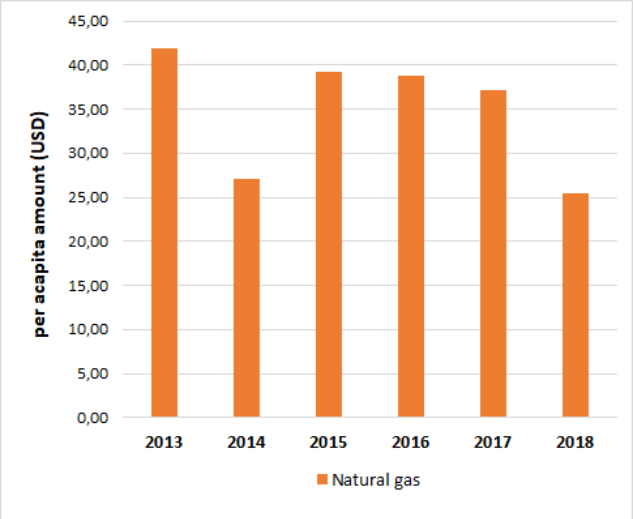
Addressing and removing environmentally-harmful subsidies (EHS) is a further step towards wider fiscal reforms[205] [206].

Fossil fuel subsidies are costly for public budgets and adversely impact the achievement of the Green Deal objectives. In many cases they also go against incentives for investments in green technologies, and do not contribute to levelling the playing field. Fossil fuel subsidies vary around EUR 55 billion in the EU since 2015. They rose by 4% between 2015 and 2019, however some countries, such as Latvia, Lithuania Sweden, Greece, or Ireland, managed to decrease subsidies for fossil fuels. In the EU, subsidies on petroleum products, in sectors such as transport and agriculture, kept on growing over this period, whereas subsidies on coal and lignite decreased, largely owing to 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 Luxembourg in 2019 (being 0.4% on EU average). In 2019 for Romania, the total fossil fuel subsidies amounted to EUR 0.8 billion, representing 0.36% of the GDP.

In 2020, the EU27's total amount of fossil fuel subsidies decreased to EUR 52 billion (due to falling consumption trends amid the COVID-19-related restrictions) which, without Member State actions, are likely to rebound as economic activity picks up from 2020[207].

Regarding environmental harmful subsidies in Romania:

Figure 45: Trends in natural gas subsidies in Romania[208]



% GDP	2015	2016	2017	2018	2019	2020
Natural gas subsidies	0,47	0,29	0,36	0,31	0,29	0,20

Romania has some bad practices with regard to environmental harmful subsidies, notably in the agricultural, energy and transport sectors. Romania has allocated more than the EU average to fossil-fuel subsidies, and all of these are higher than renewable-energy subsidies[209].

Green budgeting practices

Green budgeting encompasses various climate and environmental tagging and tracking practices in budgets and some EU Member states already use certain green budgeting practices [210]. Green budgeting helps identify and track green expenditure and green revenues to increase transparency on the environmental implications of budgetary policies. This is aimed at improving policy coherence and supporting green policies (including climate end environmental objectives) [211].

EU climate proofing and sustainability proofing guidance have also been developed, as tools to assess project eligibility and its compliance with environmental legislation and criteria[212]. The European Commission

[205] European Commission, Study on assessing the environmental fiscal reform potential for the EU 28, 2016.
[206] European Commission, Study on assessing the environmental fiscal reform potential for the EU 28, 2016.
[207] COM(2021) 950 and Annex.
[208] OECD, Fossil Fuel Subsidy Tracker.
[209] European Court of Auditors, Energy taxation, carbon pricing and energy subsidies, 2022.
[210] European Commission, Green Budgeting Practices in the EU: A First Review, 2021, Green Budgeting in the EU Key insights from the 2021 Commission survey and OECD, Public Governance Directorate, Climate Change and Long-term Fiscal Sustainability, Working Paper, February 2021. Climate Change and Long-term Fiscal Sustainability (oecd.org)
[211] OECD Paris Collaborative on Green Budgeting initiative, 2017.
[212] European Commission, Technical guidance on sustainability proofing for the InvestEU Fund.

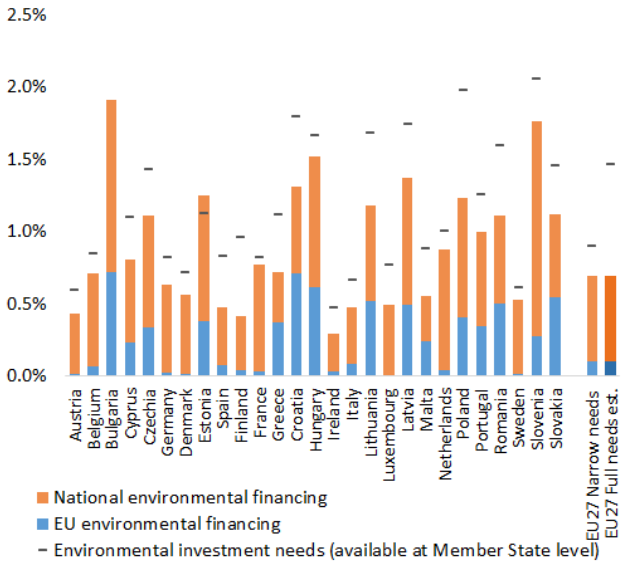
established a green budgeting reference framework [213] and launched a technical support (TSI) project on green budgeting in 2021 to assist Member States in developing or further developing national green budgeting frameworks to reap the benefits for policy coherence and for the green transition. Romania participates in the European Commission's green budgeting project started in 2021.

Romania does not have yet a meaningful green budgeting system in place. It currently makes no use of green budgetary practices. To be noted however that a reform is foreseen in this area in the Romanian RRP. The objective of this reform is to allow the monitoring of green budgetary expenditure and the assessment of the environmental and climate impact of fiscal policy. Under this reform, the Ministry of Finance shall develop and apply a methodology for assessing the impact of individual budget lines on environmental objectives. is the reform is expected to increase the capacity of local public authorities to implement green budgetary practices.

Overall financing compared to the needs

The EU's overall financing for environmental investments is estimated to have been 0.6-0.7% of GDP in 2014-2020 comprising both major EU funds and national financing. This ranged from 0.3% (Ireland) to 1.91% (Bulgaria), depending on the level of environmental challenges in different Member States. In 2021-2027, it is estimated that the EU's environmental investment needs will reach over 0.9-1.5% of projected common GDP (2021-2027), suggesting a potential environmental financing gap of 0.6-0.8% of GDP at EU level, compared to previous financing levels. [214]

Figure 467: Total environmental financing baseline (2014-2020) and estimated needs (2020-2030) in the EU27 (% of GDP)[215]



Romania's environmental financing for investments was estimated at 1.11% of GDP per year (EU average: 0.7%) in 2014-2020, being balanced between EU- and domestic sources. The country's overall environmental investment needs in the 2021-2027 period are found to reach over 1.6% of GDP (covering needs with country-level breakdown available), suggesting an environmental potential financing gaps of at least 0.49% of GDP (over baseline levels). This is likely higher when also accounting for needs currently estimated at EU level only (e.g. water protection, higher circularity, biodiversity strategy etc.).

In the 2019 EIR, Romania received three priority actions for environmental financing. The first one was to mobilise investments, including through EU funds, so as to prevent waste, encourage separate collection and recycling; reduce air pollution; promote sustainable water management, and protect biodiversity and develop green infrastructure. The second one addressed the necessity so ensure that projects are better prepared, better operated, and better prioritised so that EU funds can be used more effectively and are better absorbed. The third one concerned the need to ensure that the rural development programme and greening measures boost biodiversity and contribute to achieving a favourable conservation status of habitats and species. So far, not much progress has been achieved, and it seems that under the 2014-2020 programming period, absorption issues remain and projects are delayed which again show difficulties to prepare and develop projects. However, the evaluation will depend very much on the closure of that programming period and the capacity of the Romanian authorities to correct and address the issues identified in the 2021-2027 programming period. The implementation of the Romanian RRP in terms of reforms and investments for the green transition will also be essential. These will certainly be considered in the next EIR.

[213] European Commission, Green Budgeting Reference Framework, based on the review of the OECD Paris Collaborative on Green Budgeting initiative, 2017.

[214] 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). Sources: ESI Funds Open Data (cohesiondata.ec.europa.eu, European Commission, Eurostat.

[215] Eurostat, ESI Funds Open Data, 2021

2022 priority actions

- Devise an environmental financing strategy to maximise opportunities for closing environmental implementation gaps, bringing together all relevant administrative levels, and addressing issues in project conception, development, and implementation, while using technical assistance when necessary to increase administrative capacity. Romania has benefited substantially from EU funds in the environmental field, but has real absorption issues that would need to be addressed urgently.
- Look more closely into the possibility of environmental financing from private sources , as currently public sources provide almost two-thirds of such financing.

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 effectively[216]. Public participation allows authorities to make decisions that take public concerns into account. Access to justice is a set of guarantees that allows citizens and NGOs to use national courts to protect the environment[217]. It includes the right to bring legal challenges ('legal standing')[218].

Environmental information

This section focuses on Romania'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[219]. Data identification and documentation have made good progress, implementation levels need improvement. More efforts are needed to:

- make the data more widely accessible, and
- prioritise environmental datasets in implementation, especially those identified as high-value spatial datasets for implementing environmental legislation[220].

Table 4: Country dashboard on the implementation of the INSPIRE Directive, 2016-2020[221]

	2016	2020	Legend
Effective coordination and data sharing			Implementation of this provision is well advanced or (nearly) completed. Outstanding issues are minor and can be addressed easily. Percentage: >89%
Ensure effective coordination			
Data sharing without obstacle			
INSPIRE performance indicators			Implementation of this provision has started and made some or substantial progress but is still not close to be complete. Percentage: 31–89%
i. Conformity of metadata			
ii. Conformity of spatial data sets[222]			Implementation of this provision is falling significantly behind. Serious efforts are necessary to close implementation gap. Percentage: <31%
iii. Accessibility of spatial data sets through view and download services			
iv. Conformity of network services			

Public Participation

The relevant legislation obliges the environmental protection agencies to publish announcements and relevant information on Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) processes on the central website. However, the website is not organised in ways which facilitate searching and identifying relevant cases. It is also difficult to identify relevant cases in time to submit comments, particularly as comments are required at the screening stage and there are only 20 days allowed, from

[216] 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.
[217] 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.
[218] 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.
[219] https://inspire.ec.europa.eu/INSPIRE-in-your-Country/RO.
[220] European Commission, List of high value spatial data sets.

[221] INSPIRE knowledge base.
[222] 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 the majority of the countries provide as-is-data sets in addition to the INSPIRE harmonised data sets.

the announcement of a request for an EIA permit, to submit comments, and relevant documentation is in certain cases not available during that period.

Information about the local projects, plans or programmes subject to EIA/SEA procedures is published on each local environmental agency's website, under the Regulations domain.

Information about the national EIA/SEA procedures is published on the website of the central public authority for environment protection following the path: Domains → Impact Assessment[223].

No information is published by Romania on the number of EIA and SEA processes, or on the level of public participation, either in individual cases or in aggregate.

In 2019, as part of the project "The elaboration of guidelines for improving the administrative capacity of the environment protection authorities with the purpose of achieving a uniform application of the environmental impact assessment procedure", new EIA guidelines were developed, and also dissemination and training sessions were organised, including public participation aspects.

The 2019 EIR recommended Romania to facilitate public participation in the implementation of EU environmental law. Since 2019, Romania has made limited progression this area.

Access to justice

NGOs do not have to demonstrate a special interest in order to have legal standing in an environmental court case or in cases which have significant effects on the environment.

There are some difficulties in challenging plans or programmes either under SEA or outside its scope. Romania does not have an exhaustive list containing all the plans and programmes that can be challenged or not. This can only be established based on a plan's or programme's specific content. If the plan or programme is not within the scope of SEA, it will fall under Law No 52/2003 on the transparency of the decision-making of public authorities regarding the public consultation procedure, and other sectoral legislation. Such administrative acts can be challenged in accordance with the general provisions from Law No 554/2004.

There is a system of regular supervision of regulatory legally binding acts, but it is barely accessible for the members of the public and NGOs. They can only bring cases to the attention of those bodies or officials who are entitled to initiate an extraordinary supervision procedure.

The national rules on environmental access to justice and how to challenge an administrative decision are available in a special section on the website of the Ministry of Environment, Water and Forests (http://mmediu.ro/categorie/modalitatea-de-contestare-a-deciziei-si-formularele-aferente-pentru-reclamatie-administrativa/158). An informative brochure for the general public on public access to environmental information was put together in 2019 in the form of a FAQ flyer available bot online (http://www.mmediu.ro/categorie/accesul-la-informatia-de-mediu/242) and on paper at the headquarters of the Ministry of Environment, Water and Forests).

There are some difficulties in challenging SEA decisions (either the plan or programme or the environmental report or both).

In the 2019 EIR, Romania received several priority actions on access to justice, namely, to provide broader standing to the public and to better inform them about their rights. It has made some progress on informing the public and only limited progress on providing broader legal standing.

2022 priority actions

- Make spatial data more widely accessible and prioritise environmental datasets in the implementation of the INSPIRE Directive, especially those identified as high-value spatial datasets for implementing environmental law.
- Improve the functioning of the website for EIA and SEA processes, and ensure that the public has adequate information to identify cases of concern, and adequate opportunity to make comments.
- Publish regular information on the number of EIA and SEA processes and their outcomes, including information on the level of public participation and the extent to which public comments were taken into account in the final decisions.
- Better inform the public of their access to justice rights, in particular by referring them to judicial and administrative portals and to the Commission e-Justice fact sheets on access to justice in environmental matters[224].
- Improve access to courts for the public concerned for them to challenge decisions, in particular in the areas of planning related to water, nature and air quality.

[223] www.mmediu.ro.

[224] https://e-justice.europa.eu/content_access_to_justice_in_environmental_matters-300-en.do.

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 waste[225].
It includes support measures provided by the authorities such as:
(i) compliance promotion [226];
(ii) inspections and other checks that they carry out, i.e. compliance monitoring [227];
(iii)the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement[228].
Citizen science and complaints enable authorities to focus their efforts better. Environmental liability[229] ensures tat the polluter pays to remedy any damage.

Compliance promotion and monitoring

The lack of detailed management plans for Natura 2000 sites in Romania is reflected in a lack of detailed information for farmers and land managers on how to comply with their nature protection responsibilities. The situation is however more encouraging for the Nitrates Directive, with information provided by the common agricultural policy paying agency on practical measures for complying with the nitrates aspects of the Good Agricultural and Environment Condition requirements[230], and a website and farmer helpdesk provided by the Ministry of the Environment, Water and Forests[231]. These are supplemented by Knowledge transfer networks, organising discussion groups and workshops for farmers. However, the percentage of farms reached by these mechanisms may be limited, both by the scale of the agricultural sector, and by limited use of digital services in rural areas.

Each installation subject to the Industrial Emissions Directive is covered by an inspection plan, based to some extent on the risks posed by the installation. However, these plans do not happen to be published. In principle, inspection reports should be made available to the public within 4 months of the inspection. However, reports are not proactively published and may be available only upon request. Statistical information is published[232] on a monthly and an annual basis, but it is limited to general information on the overall number of inspections, the fines imposed, the amount of fines, and proposals to suspend permits. No site-specific information is made available.

Complaint handling and citizen science

In principle, information on how to submit complaints is made available on the websites of the relevant authorities, for example the environmental protection agencies[233], the Ministry of the Environment, Water and Forests[234]. These provide general information on how to submit complaints, model formats for complaints, information about what complaints should focus on, and the contact information for submitting complaints. No data are available about complaints on environmental issues and their handling.

There does not appear to be any active encouragement of citizens to alert authorities on environmental problems, other than from NGOs and other civil society organisations. Nor does there appear to be any national policy on encouraging the use of citizens' science in respect of enforcement or any other environmental issue.

Enforcement

No information is available on the prosecution of environmental crimes, and concerns persist about the capacity of the judicial system to deal with environmental cases effectively. Criminal investigations and prosecutions are generally not made public, and it is difficult for concerned individuals or civil society groups to investigate whether, and what action has been taken by the authorities in cases of specific breaches of environmental legislation.

There are existing formal arrangements for coordination among the bodies responsible for enforcing penalties for environmental damage or environmental crimes. The protocols published a long time ago do not seem to have produced a functioning system.

Environmental Liability Directive

In principle, details of Environmental Liability Directive cases are published annually in a database on the

[225] 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.
[226] This EIR focuses on the help given to farmers to comply with nature and nitrates legislation.
[227] This EIR focuses on inspections of major industrial installations.
[228] This EIR focuses on the availability of enforcement data and co-ordination between authorities to tackle environmental crime.
[229] The Environmental Liability Directive, 2004/35, creates the framework.
[230] See http://www.apia.org.ro/files/pages_files/Brosura_Cod__C3.pdf.
[231] See https://infonitrati.apanoastra.ro/.
[232] See https://gnm.ro/note.php.
[233] http://www.anpm.ro/web/guest/contact.
[234] http://www.mmediu.ro/categorie/petitii/52.

website of the National Environmental Protection Agency[235].

2022 priority actions

- Provide information to farmers on how to manage their land to improve biodiversity outcomes, and more detailed site-specific information once management plans are available for Natura 2000 sites.
- Encourage and monitor public participation in enforcement, through activities to raise awareness of the options for reporting environmental problems; more generally, establish active plans for making use of citizen science.
- Make more information available on the enforcement of environmental law, including by providing regular information on the prosecution of environmental crimes, as well as information on formal arrangements for cooperation between responsible public bodies.
- Make information available on environmental damage, including information on penalties and other financial measures.

Effectiveness of environmental administrations

Those involved in implementing environmental 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

Environmental policy developments in Romania are mainly driven by EU directives and regulations, and the relevant EU rules are generally transposed in time.

Implementation remains the main challenge, with application on the ground proving difficult. Romania faces many infringement procedures in all the areas of the EU environmental law. Their number is on the rise and solutions take a lot of time to be implemented. The concerns expressed in the 2019 EIR remain valid as the situation has not really improved. Romania currently has a high number of environmental infringement procedures against it and an average number of complaints being dealt with by the Commission.

In terms of the institutional setup, the main problems identified are a poor co-ordination of the tasks among the institutions, delays in programme development at national level due to weak local public administration, heavy political interference as demonstrated by the continuous changes to objectives and policies within the civil service bodies, poor capacity in the field of project management, and weak strategic planning.

To make full use of EU funds for building environmental infrastructure and protecting nature, it will be crucial to boost administrative capacity and project preparation, and implementation across all environmental areas. Romania needs to make the most of the technical assistance available, but political ownership is essential, and this is currently lacking.

Coordination and integration

As mentioned in the 2017 EIR, the transposition of the revised EIA Directive[236] into national law provides an opportunity for countries to streamline the regulatory framework for environmental assessments. Romania has notified the transposition of the Directive in December 2018.

The Commission encourages the streamlining of the environmental assessments to reduce duplication and avoid overlaps in environmental assessments applicable to projects. Moreover, streamlining helps to reduce unnecessary administrative burden and accelerates decision-making, provided it is done without compromising the quality of the environmental assessment procedure[161]. Romania has already begun to streamline the environmental assessments under the EIA, the Habitats, the Water Framework, and the Industrial Emissions Directives, thereby enabling funds to be used.

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

The Commission supports environmental implementation and the green transition through the EU financing programmes. But it also gives support by granting technical assistance such as through the TSI and peer-to-peer learning through Taiex peer-to-peer exchanges.

[235] http://www.anpm.ro/noutati1/-/asset_publisher/wve2JVQ0Mmuk/content/rapoarte-informatii-prezentari/10197?_101_INSTANCE_wve2JVQ0Mmuk_redirect=http%3A%2F%2Fwww.anpm.ro%2Fnoutati1%3Fp_p_id%3D101_INSTANCE_wve2JVQ0Mmuk%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D3&redirect=http%3A%2F%2Fwww.anpm.ro%2Fnoutati1%3Fp_p_id%3D101_INSTANCE_wve2JVQ0Mmuk%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D3

[236] OJ L 124, 25.4.2014, p. 1–18.

The TSI has supported several environment-related projects in Romania. Under both the 2019 and 2021 TSIs, the Commission supported projects on a structural reform in the waste management sector. Under the 2019 TSI , it supported a project wto increase the institutional capacity of the Ministry of the Environment, Water and Forests and its structures to integrate flood risk reduction into all relevant sectors. The 2021 TSI supported one project to strengthen the economic regulation of the solid waste sector and another related to the development of the circular economy strategy. Under the 2022 TSI, three projects have been selected: one on the reform of water charges in line with the polluter and user pay principles, one on support for setting up and operationalising a central government-led corporate governance mechanism, and a third on implementating a sustainable finance framework.

TAIEX EIR Peer to Peer Projects

The TAIEX EIR Peer-to-Peer tool has been launched in 2017 by the Commission to facilitate peer-to-peer learning between environmental authorities[237].

During the reporting period, Romania has participated in two multi-country workshops on ammonia reducing technology and measures (2021) and on zero pollution (2022).

In March 2022, a workshop was organised, at the request of Romanian authorities, to provide examples of good practice for sustainable forest management. The focus was directly related to the implementation of the Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the SEA Directive) and the Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive). According to the COM (2019)149 Communication, Romanian authorities should do more to improve coordination and consistency between Natura 2000 and forest management plans. This peer-to-peer exchange has been supporting national authorities in their work to incorporate sustainable forest management into policymaking.

[237] TAIEX - Environmental Implementation Review - PEER 2 PEER - Environment - European Commission (europa.eu).