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COMMISSION STAFF WORKING DOCUMENT

Environmental Implementation Review 2022
Country Report - POLAND

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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Executive summary

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

- to close gaps in the Natura 2000 designation process and improve the management of Natura 2000 sites that overlap with forest districts;
    - to improve air quality, especially to reduce particulate matter (PM2.5 and PM10), nitrogen oxides and benzo(a)pyrene emissions;
    - to improve environmental governance: transparency, citizen engagement, compliance and enforcement, as well as administrative capacity and coordination.

As regards **nature conservation**, there has been substantial progress to draw up plans for managing Natura 2000 sites. However, the designation of sites in the Natura 2000 network is not yet complete. Poland needs to step up its efforts to finalise the designation process, adopt management plans for the remaining sites, and allocate sufficient resources to site management. These are key requirements to protect biodiversity across the EU. The European Green Deal and the European Biodiversity Strategy for 2030 both stress the importance for the EU of halting biodiversity loss by preserving our natural sites and restoring damaged ecosystems to good ecological status. Poland needs to take measures to improve knowledge and education about the Natura 2000 network and benefits from it, and to promote societal acceptance. The coherence of the Natura 2000 network continues to be threatened by the fast-developing infrastructure, especially urban sprawl, regulation and maintenance of rivers, road transport, and intensive forestry and agriculture.

There has been some progress on **air quality**, which nevertheless continues to give cause for serious concern, as Polish cities are amoung the most polluted in Europe due to the exceedances for fine particulate matter and benzo(a)pyrene. While acknowledging that Poland has made progress, the Commission remains concerned by the pace of changes, particularly with regard to replacing outdated solid fuel boilers and measures focusing on the transport sector.

Poland has only made limited progress on **environmental governance and rule of law**. Despite some improvements concerning access to justice under the Environmental Impact Assessment (EIA) Directive, access to courts by the concerned public still needs improving, and the public should be better informed about their access to justice rights. The interstate dispute between Poland and Czechia over the prolongation of the mining concession for the Turów coal mine ended with an agreement between the two countries. However, the dispute also highlighted Poland's refusal to comply with the interim orders by the Court of Justice of the European Union, which led to fines.

In the field of **waste management**, there has been some progress in terms of financial incentives introduced by new legislation to encourage better selective collection of waste by households. However, Poland's landfill rate of 42% in 2020 is still far above the EU average (24%). Moreover, Poland still hasn't definitely closed and rehabilitated some municipal landfills that do not comply with the requirements of the Landfill Directive. Furthermore, Poland needs to increase investment in **recycling** to meet the EU 2020 and 2025 recycling targets.

Despite significant investment, including projects co-financed by the EU Funds, Poland missed the final deadlines for complying with the **Urban Waste Water Treatment** Directive in 2015. Over 1 000 agglomerations are non-compliant and require further action and investment in infrastructure.

EU financing continues to provide substantial support for implementing environmental measures, as Poland is due to receive EUR 72 billion from the cohesion policy (European Fund for Regional Development – ERDF, and European Social Fund – ESF) in 2021-27. This financing should be used to close the existing implementation gaps. Poland is strongly encouraged to earmark sufficient resources to support biodiversity objectives and especially to implement priority measures identified in the Prioritised Action Framework (PAF).

Poland's total environmental protection investments equalled 1.24%% of its GDP in 2014-2020 (EU average 0.7%). The overall environmental investment needs in the coming period are estimated to be at least 1.98% of Poland's GDP annually (on average). This **suggests an environmental investment gap of over 0.74% of the GDP** that needs to be addressed by focusing on the country's environmental implementation priorities.

Part I: Thematic areas

1. Circular economy and waste management

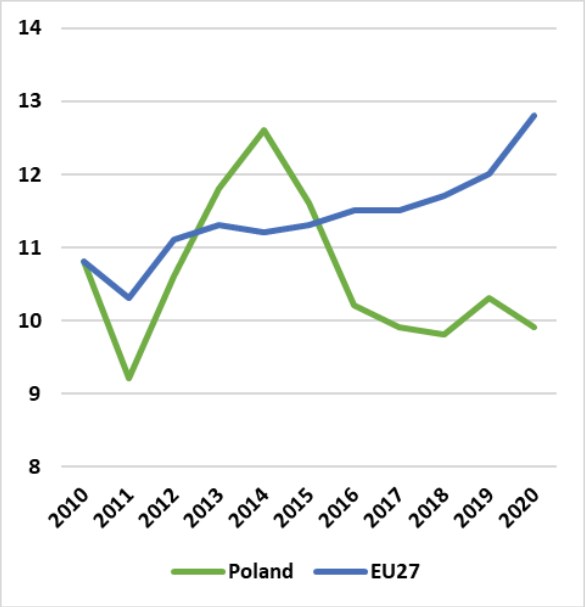
Measures towards a circular economy

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, also known as circularity rate, is defined as the ratio of the circular use of materials to the overall material use. The overall material use is measured by summing up the aggregate domestic material consumption (DMC) and the circular use of materials. 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 goal of doubling the EU 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 durability, reparability, upgradability and recyclability of products, to other measures, like: (i) 'remanufacturing'[1]; (ii) increasing the circularity in production processes; (iii) recycling; (iv) boosting eco-innovation; and (v) increasing the uptake of green public procurement.

Poland's circular (secondary) use of material was 10.2% in 2016 and 9.9% in 2020. There has therefore been a decline in secondary material usage over the recent years and the gap between Poland's performance and the EU average of 12.8% has widened. This is due to the fact that Poland's domestic material consumption increased, while its overall material use rate decreased. However, according to the latest national data, not yet verified by the Commission, the 2020 gap to the EU average is likely to be reduced. The circular material use rate published for 2020 is provisional, based on estimated data.

Figure 1: Circular material use rate (%), 2010-2020[2]



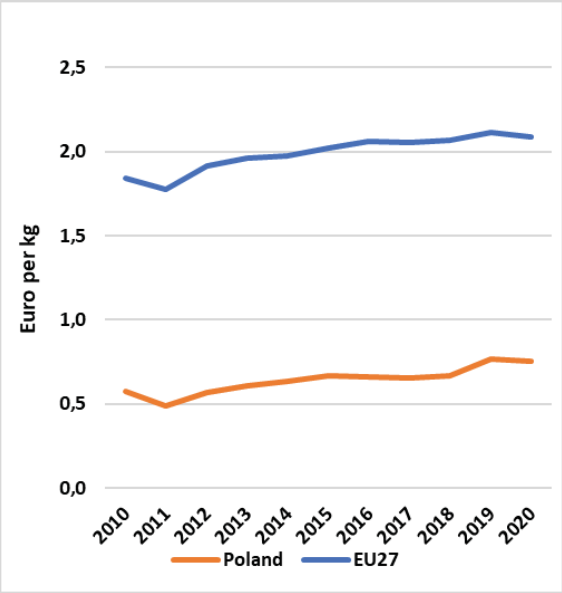
Resource productivity expresses how efficiently the economy uses material resources to produce wealth. Improving resource productivity can help to minimise negative impacts on the environment and reduce dependency on volatile raw material markets. As shown in Figure 2, Poland generated EUR 0.79[3] per kg of material consumed in 2020, which puts the country well below the EU average of EUR 2.09 per kg for resource productivity.

[1] A standardized industrial process that takes place within industrial or factory settings, in which cores are restored to original as-new condition and performance or better.

[2] Eurostat, Circular Economy Monitoring Framework.

[3] https://sdg.gov.pl/en/statistics_nat/12-1-a/

Figure 2: Resource productivity, 2010-2020[4]



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. Since the launch of the online Circular Economy Stakeholder Platform in 2017[5], national, regional or local authorities have used the platform to share their strategies and roadmaps.

On 10 September 2019, the Polish Council of Ministers adopted the 'Roadmap for the transformation to a circular economy'. The roadmap contains a set of tools, going further than purely legislative tools, which aim to create conditions for the implementation of a new economic model in Poland. Proposed actions cover mainly analytical and conceptual measures, but also informational, promotional and coordination measures, in the areas of competence of particular ministries. The roadmap includes a timeline for implementation.

The roadmap's aim is to establish sustainable industrial production, a bioeconomy, and new business models under the values of circular economy, as well as to cover sustainable consumption. Poland does not have sector-specific strategies for plastics, textiles or construction, however some measures included in the roadmap could impact on those sectors.

Poland has also set up a working group for research, development, and innovation for the transition to a circular economy, known as the Working Group for National Smart Specialisation 'Circular Economy'.

Work is also underway to develop a secondary raw materials trading platform. The platform is intended to operate on the legislative basis of the end-of-waste regulations. Those working on this joint effort include (i) the Working Group for National Smart Specialization 'Circular Economy', (ii) the Warsaw Stock Exchange and (iii) the National Centre for Climate Change.

Eco-innovation

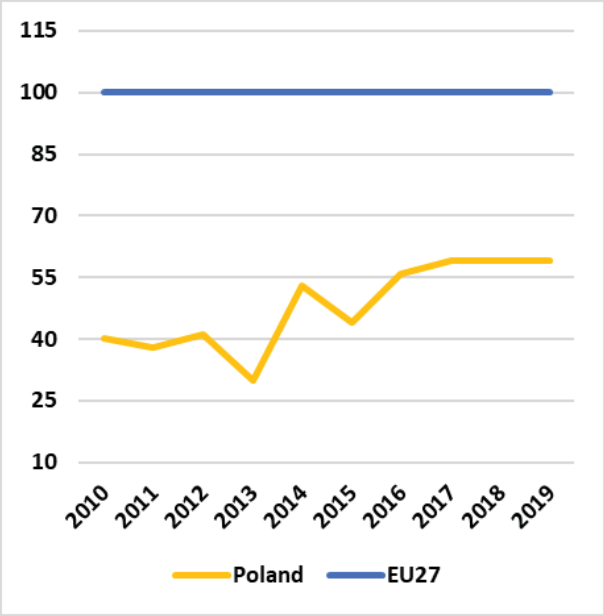
A successful transition to a circular economy requires social and technological innovation. This is because the full potential of the circular economy can only be reached when it is implemented across all value chains. Eco-innovation is an important enabling factor for the circular economy. New approaches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

In 2021, Poland ranked 26th on the 2021 Eco-Innovation Scoreboard[6] with a total score of 63, which indicates the country's need to step up its eco-innovation activities. Poland's performance is well below the EU average on all five components of the 2021 eco-innovation index: (i) eco-innovation inputs; (ii) eco-innovation activities; (iii) eco-innovation outputs; (iv) resource efficiency outcomes; and (v) socio-economic outcomes.

However, under the next EU financial perspective 2021-2027, eco-design will be one of the elements for which funding will be available. Under the Cohesion Policy, support is planned for R&D and innovation in the transformation of the business sector towards circular economy model. The measures envisaged include the financing of eco-design based innovation and eco-innovation, as well as institutional support for enterprises in their transition to the circular economy model (through the Green Innovation Hub).

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

Figure 3: Eco-innovation performance, 2010-2019[7]



Green public procurement (GPP)

Public procurement accounts for a large proportion of European consumption, with public authorities' purchasing power representing 14% of EU GDP. Public procurement can help drive the demand for sustainable products that meet repairability and recyclability standards. At present, reporting to monitor the uptake of GPP is voluntary.

Poland adopted its first national action plan on GPP for the period 2007-2009, followed by Sustainable Public Procurement NAP for 2010-2012, 2013-2016, and 2017-2020. Currently, sustainable public procurement (encompassing also GPP) is mentioned as one of the top priorities under the state purchasing policy for 2022-2025, a strategic document adopted by the Council of Ministers in January 2022. The State Purchasing Policy is addressed to government administration units to include in particular green and social aspects in their tendering process. There are no criteria developed at national level. However, the Public Procurement Office promotes the overall application of the EU GPP criteria on a voluntary basis. Monitoring is based on the analysis of information delivered by contracting authorities in their annual reports on awarded contracts. On that basis, a report on the functioning of the public procurement system is prepared annualy.

In January 2022, the Public Procurement Office published on its website a "Guidance on the GPP-related provisions"[8]. The more recent deliverables include also a "Guidance on the use of solutions within public contracts to counter impact on environment of the individual components of a construction investment"[9].

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

The number of EU ecolabel products and EMAS-licensed[10] 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, 3 175 out of 83 590 products, and 58 out of 2 057 licences in Poland were registered under the EU ecolabel scheme, showing a good take-up of these products and licences [11]. Moreover, 67 organisations and 515 sites from Poland are currently registered in the European Commission's EMAS [12]. Since the last report in 2019, there have been 615 new EU ecolabel product registrations as well as 12 new organisations registered with the EU ecolabel in Poland. However, the number of organisations registered in EMAS has decreased by 2.

As Poland has adopted a circular economy roadmap, the priority action from 2019 has been fulfilled. As the circular material use rate is well below the EU average the following priority action is proposed.

2022 priority action

- Adopt measures to increase the circular material use rate.

[7] European Commission - Directorate-General for Environment (DG ENV), Eco-innovation Observatory', Eco-innovation index.

[8] Przewodnik UZP po obowiazujących przepisach w obszarze zielonych zamówien publicznych

[9] Wskazówki dot. rozwiązań przeciwdziałających oddziaływaniu na środowisko

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

[11] European Commission, ecolabel facts and figures.

[12] As of May 2018. European Commission, eco-management and audit scheme.

Waste management

Turning waste into a resource is supported by:
(i) fully implementating EU waste legislation, which includes the waste hierarchy, the need to ensure separate collection of waste, the landfill diversion targets etc.;
(ii) reducing waste generation and waste generation per capita in absolute terms;
(iii) limiting energy recovery to non-recyclable materials and phasing out landfilling of recyclable or recoverable waste.

This section focuses on the management of municipal waste[13], for which EU law sets mandatory recycling targets.

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

After a downward trend, municipal waste generation in Poland has started to increase in recent years, reaching 336 kg per capita in 2020. However, this value is still well below the EU average of 501 kg per capita (see Figure 4). Although a longer period is needed to confirm any conclusions on decoupling, Poland might be on the track to decouple total waste generation from economic growth, provided the decoupling observed since 2016 continues[14].

Figure 4: Municipal waste by treatment in Poland, 2010-2020[15]

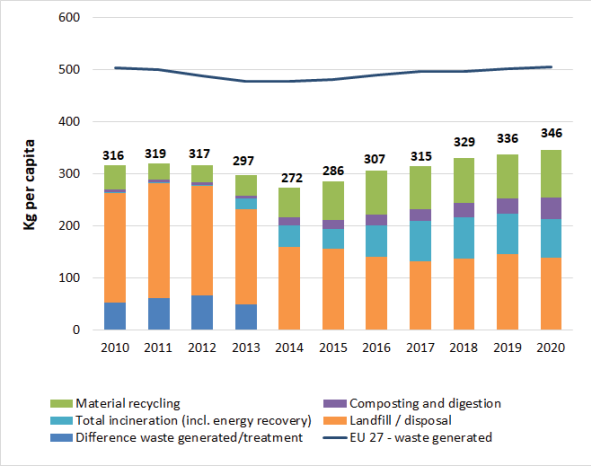


Figure 4 also shows municipal waste by treatment type, in kg per capita. After a decrease in the first half of the last decade, Poland's landfill rate has increased again over the last 3 years, reaching 43% in 2020 (which is far above the EU average of 24%). This means that landfilling, followed by incineration (23%) remain the predominant forms of waste treatment.

While in the first half of the last decade Poland made slow but steady progress in stepping up its recycling rate and diverting municipal waste from landfilling, the situation has stagnated over the last 3 years. The data reported by Poland shows that 39% of municipal waste is recycled, which is below the EU average of nearly 48% (see Figure 5) and shows no significant improvement since 2016.

The Commission called on Poland to comply with the EU rules on landfills by ensuring the definitive closure and rehabilitation of five non-compliant municipal landfills[16].

Figure 5 shows that Poland needs to increase its investment in recycling to meet the EU 2020 and 2025 recycling targets.

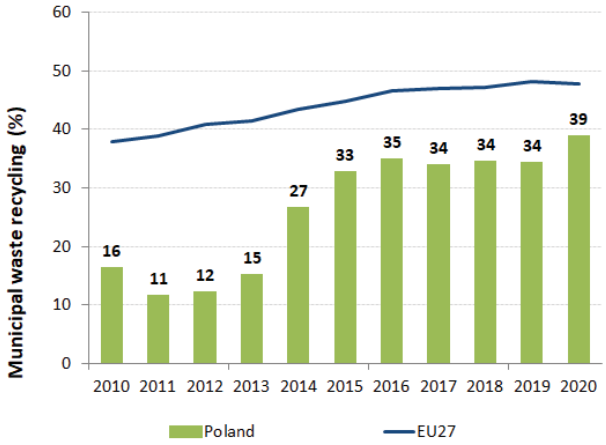
[13] Municipal waste consists of (a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture; (b) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households. (Directive 2008/98/EC, Art. 3 2b).

[14] Poland Waste Prevention Country Profile 2021 — European Environment Agency (europa.eu)

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

[16] April infringements package: key decisions (europa.eu)

Figure 5: Recycling rate of municipal waste, 2010-2020[17]



The Commission's Early Warning report[18] listed Poland as one of the countries at risk of missing the EU 2020 target of recycling 50% of municipal waste. The report listed key priority measures which Poland should take to close the implementation gap. The Commission is currently finalising two progress analyses, one on the recommendations from the 2018 Early Warning Reports, the second on achieving the 2025 waste recyling targets. The report will be published at the end of 2022 and will assess the progress made to date.

Implementation of the 2018 waste legislative package

By 5 July 2020, EU Member States were required to bring their national laws into line with changes included in the revised Waste Framework Directive, the Packaging and Packaging Waste Directive and the Landfill Directive[19]. Poland has notified the transposition of the 2018 waste legislative package[20] to the Commission. A conformity assessment is now underway.

Waste-management plans and waste-prevention programmes are instrumental for in effectively implementing the EU's waste legislation. These plans and programmes set out key provisions and investments to ensure compliance with existing and new legal requirements (e.g. on waste prevention; on separate collection for a number of specific waste streams; on recycling; and on landfill targets). The Member States were due to submit revised waste-management plans and waste-prevention programmes by 5 July 2020.

In 2016, Poland approved its national waste management plan 2022 (KPGO 2022 – *Krajowy plan gospodarki odpadami 2022*)[21], amended in 2021[22]. The main objective of the 2022 KPGO is to identify the roadmap needed to meet the EU's recycling and reuse target for municipal waste. A revised plan with a more forward-looking perspective is still being developed (expected in 2022).

2019 brought significant legislative changes aimed at increasing recycling of waste and at strengthening enforcement of waste management rules. Most notably, the market for residual waste has been opened up to competition by abandoning the obligation to treat municipal waste in installations that are classed as regional installations. Moreover, as from 2021, mixed waste from the municipalities that have not set up separate collection schemes is no longer accepted for incineration. The amended law on maintaining cleanliness and order in communes[23] also introduced a major incentive for households to collect recyclables separately, as costs of disposal of mixed waste can be two to four times higher than for separated waste. Lastly, environmental inspectorates are able to carry out ad hoc inspections without prior notice and impose financial sanctions for obstructing controls and investigations.

Poland has not signed and ratified the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships.

In the 2019 EIR, Poland received five priority actions in the field of waste. There has been no progress on building excessive infrastructure for waste incineration and on better enforcement of the waste legislation, for example through setting up a system of checks on end-of-life vehicles. However, Poland made notable progress on financial incentives to encourage better selective collection of waste by households. There has been limited progress on improving the functioning of extended producer responsibility schemes; legislation is currently under discussion.

Given the overall limited progress and in light of the upcoming 2022 Early Warning Report, which will present a detailed analysis of progress in achieving the

[17] Eurostat, Recycling rate of municipal rate, April 2022.
[18] European Commission, Report on the implementation of waste legislation, including the early warning report for Member States at risk of missing the 2020 preparation for re-use/recycling target on municipal waste, SWD(2018)422 accompanying COM(2018)656.
[19] 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.
[20] 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.
[21] Krajowy plan gospodarki odpadami 2022
[22] Uchwała nr 57 Rady Ministrów z dnia 6 maja 2021 r.
[23] Ustawa o utrzymaniu czystości i porządku w gminach

2020 targets, similar priority actions as the ones set out in the EIR 2019 are proposed below.

2022 priority actions

- Consider introducing incineration fees to more effectively divert waste towards the higher end of the waste hierarchy and to make recycling and reuse economically attractive, as indicated in the national waste management plan.
- Avoid building excessive infrastructure for waste incineration, close and rehabilitate non-compliant landfills.
- Continue efforts to better enforce waste legislation; in particular, introduce effective penalties for municipalities or local authorities, to ensure they put more effort into curbing illegal waste dumping, and establish a system of checks on end-of-life vehicles.
- Improve the functioning of extended producer responsibility (EPR) schemes, in line with the general minimum requirements on EPR [24].
- Set up a national project giving municipalities technical assistance with meeting their implementation and enforcement obligations, especially as regards separate collection, checks on bodies dealing with waste management, functioning of EPR, etc.
- Ensure a national waste management in line with revised Waste Framework Directive is in place.

[24] Directive (EU) 2018/85

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[25].

Poland prepared its first biodiversity strategy in 2003. In 2015 an updated strategy, 'a programme of biodiversity conservation and sustainable use', was drawn up with the aim of contributing more to EU biodiversity targets (including achieving favourable conservation status for at least 10% of habitats and 10% of species). A national strategy of wetland conservation was drawn up in 2006, according to the Ramsar Convention's requirements.

Nature protection and restoration

Natura 2000[26], 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 SACs[27]; (iii) the setting of site-specific conservation objectives and measures for all Natura 2000 sites.

Setting up a coherent network of Natura 2000 sites

Poland hosts 81 habitat types[28] and 176 species[29] covered by the Habitats Directive. The country also hosts populations of 105 bird taxa listed in the Birds Directive Annex I[30].

As shown in the Figure 7, by 2021, 19.6% of the territory of Poland was covered by Natura 2000 (EU average 18.5%), with special protection areas (SPAs) classified under the Birds Directive covering 15.5% (EU average 12.8%) and SCIs under the Habitats Directive covering 11% (EU average 14.2%) of Poland's territory.

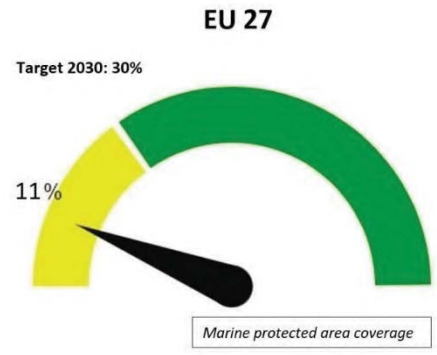
The assessment of the SCI part of the Natura 2000 network shows that there are still some insufficiencies in designating SCIs and Poland still has to complete its Natura 2000 network. The Commission has taken legal action to address these gaps and is closely monitoring progress in this case.

Taking Natura 2000 and other nationally designated protected areas into account, Poland legally protects 39.6% of its terrestrial areas (EU-27 average 26.4%) and 21.8% of its marine areas (EU-27 average 10.7%)[31]. Poland strictly protects approximately 1.5% of its territory (combined area of national parks and natures reserves).

Figure 6 shows the EU-level targets in the 2030 biodiversity strategy and the 2021 levels for terrestrial and marine protected area coverage.

[25] These should be reinforced by the Nature Restoration Law, according to the new EU Biodiversity Strategy
[26] Natura 2000 comprises Sites of Community Importance (SCIs) designated pursuant to the Habitats Directive as well as Special Protection Areas (SPAs) classified pursuant to the Birds Directive; figures of coverage do not add up due to the fact that some SCIs and SPAs overlap. Special Areas of Conservation (SACs) means a SCI designated by the Member States.
[27] 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 due to the fact that some SCIs and SPAs overlap. Special areas of conservation (SACs) are SCIs designated by the Member States.
[28] EEA, Article 17 dashboard, Annex I total, 2019.
[29] 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.
[30] EEA, Article 12 dashboard, Annex I, 2020. This counting only takes into account birds taxa for which information was requested.
[31] EEA, Protected Areas, terrestrial protected area percentage (2021) and marine protected area percentage (2019), March 2022.

Figure 6: Marine & terrestrial protected area coverage, 2021[32]



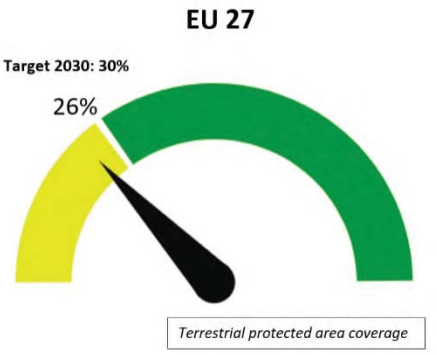
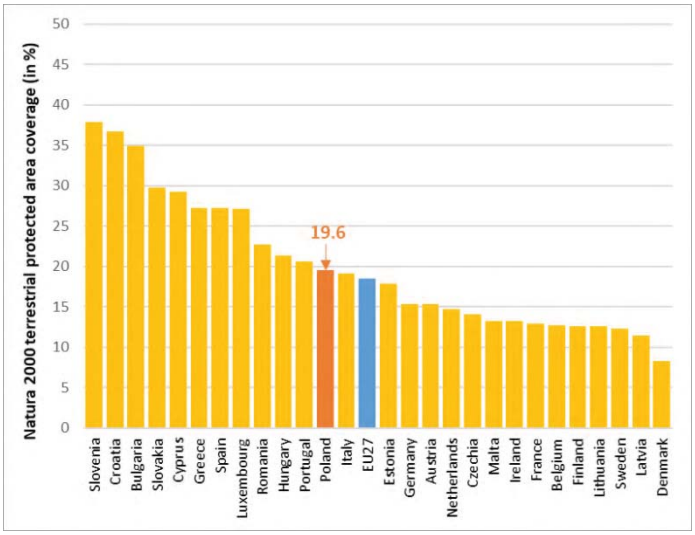


Figure 7: Natura 2000 terrestrial protected area coverage, 2021[33]



Designating SACs and setting conservation objectives and measures

The six-year deadline set by the Habitats Directive to designate SCIs as SACs and decide on appropriate conservation objectives and measures has expired for 849 sites in Poland.

Nevertheless, 390 SCIs have not yet been designated as SACs, while conservation objectives and conservation measures have only been established for 563 SCIs. Furthermore, the quality of these objectives is insufficient as they are often not related to the parameters used to determine the conservation condition of the habitat types and species protected on the site (e.g. in relation to area, structure and functions or populations). Due to these shortcomings, the Commission initiated an infringement procedure calling on Poland to take the long overdue necessary steps to protect and manage its Natura 2000 network.

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 reuire reporting on the progress made towards maintaining or restoring favourable conservation status of species and habitats[34].

According to the report submitted by Poland on the conservation status of habitats and species covered by

[32] EU Biodiversity Strategy Dashboard, indicators A1.1.1 and A1.2.1, February 2022.

[33] European Environment Agency, Natura 2000 Barometer, February 2022.

[34] Consult Conservation status and trends of habitats and species — European Environment Agency (europa.eu)

Article 17 of the Habitats Directive for 2013-2018, 20% of assessments in 2018 showed habitats in good conservation status (the same as under the previous reporting period, 2007-2012). As for protected species, 37.74% of assessments showed good conservation status in 2018 (31.99% in 2007-2012). Concerning birds, 18% of the breeding species showed short-term increase, while 24% showed stable population trends (for wintering species these figures were 38% and 14% respectively).

However, the share of habitats in bad or poor conservation status has increased to 78.26%, while the share of assessments for species in bad or poor conservation status has decreased to 46.69%. The main pressures are natural processes, development of infrastructure, agriculture, forestry and invasive alien species.

Figure 8: Assessments on conservation status for habitats for the 2007-2012 and 2013-2018 reporting periods[35]

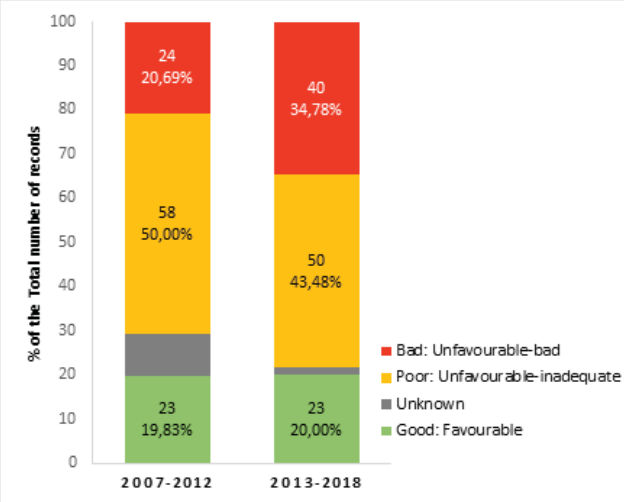
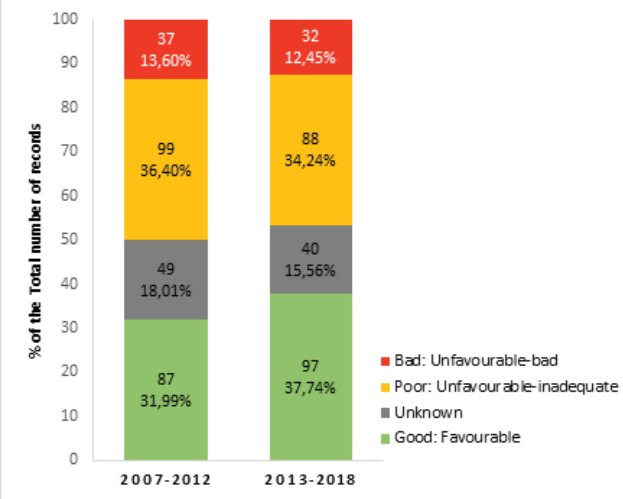


Figure 9: Assessments on conservation status for species for the 2007-2012 and 2013-2018 reporting periods[36]



In February 2022, Poland submitted to the Commission its 2021-2027 prioritised action framework (PAF) for Natura 2000. The document sets out funding needs for managing and restoring the Natura 2000 sites, the green infrastructure necessary to ensure the coherence of the network, supporting protected species, and administrative and other cross-cutting measures.

According to the estimates presented by Poland, approximately EUR 689 million annualy is required to effectively manage and restore the sites to achieve favourable conservation status of habitats and species of EU interest. The highest costs are related to managing forest habitats (EUR 333 milion/year) and grasslands (EUR 287 million/year). Filling knowledge gaps was estimated to cost EUR 207 million altogether.

The LIFE programme has been widely used in Poland for nature purposes. Two recent example projects are:

- Kampinos WetLIFE project on protection and restoration of wetlands in 'Puszcza Kampinoska' Natura 2000 site;
- LIFE Apollo2020 project on Conservation of Apollo butterfly (*Parnassius apollo*) in Poland, Czechia, and Austria.

Poland has not signed and ratified the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA).

[35] 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 in methods or due to better data availability.

[36] Idem

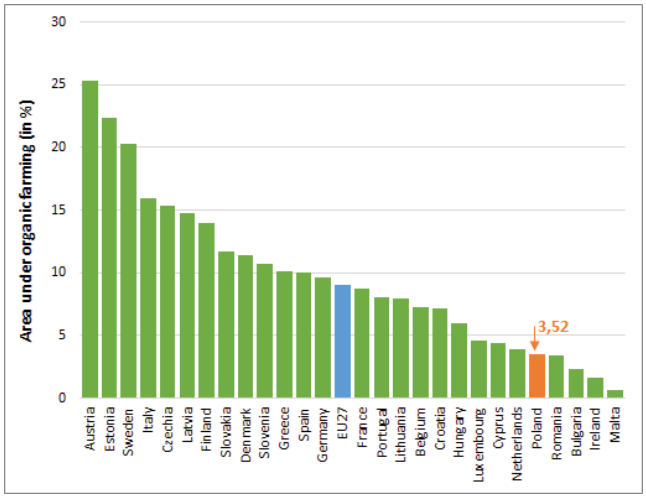
Bringing nature back to agricultural land and restoring soil ecosystems

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

As shown in Figure 10, with an estimated 3.52% of land under organic farming in 2020 (a slight increase compared to 3.49% in 2019, according to Eurostat data), Poland is well below the EU average of 9.07% and ranks 23rd out of 27 EU Member States.

Figure 10: Share of total utilised agricultural area occupied by organic farming per Member State, 2020[37]



Data from recent years and medium-term projections show an increasing trend for non-carbon dioxide (CO_2) emissions from agriculture. This includes soils that account for half of the emissions, stagnating CO_2 removal in the land use, land-use-change, and forestry (LULUCF) sectors. The relatively high emissions intensity of the livestock sector (enteric fermentation) and significant energy consumption in the agricultural and forestry sectors are also areas of concern. Production of renewable energy remains under-used in terms of energy per livestock unit.

Water availability is a significant problem, caused partially by the weak water retention capacity in the Polish agriculture sector, exacerbated by the changing climate. Water quality, regional surpluses of nitrogen, and phosphorus from the use of animal manure may lead to pollution of ground and surface waters and the increasing eutrophication of the Baltic Sea.

Intensification of farming management, land abandonment, pollution, modifications of hydrological systems such as drainage and expansion of invasive species are main agriculture-related threats responsible for the worsening of biodiversity status.

Soil ecosystems

Soil is a finite and extremely fragile resource and 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 in the degradation of soil ecosystems is the area of soil that is sealed or atificialised[38]. The net land taken (land 'taken' means that land is sealed or artificialised) per year in the period 2012-2018 (see Figure 11) can be seen as a measure of one significant pressure on nature and biodiversity – a land-use change. At the same time, a land-use change constitues an environmental pressure on people living in urbanised areas.

Despite a reduction in the last decade (land take was over 1 000 km²/year in the EU-28 between 2000 and 2006), land take in the EU-28 still amounted to 539 km²/year in 2012-2018. The concept of 'net land take' combines land take with the return of land to non-artificial land categories (re-cultivation). While some land was re-cultivated in the EU-28 in 2000-2018, 11 times more land was taken than returned.

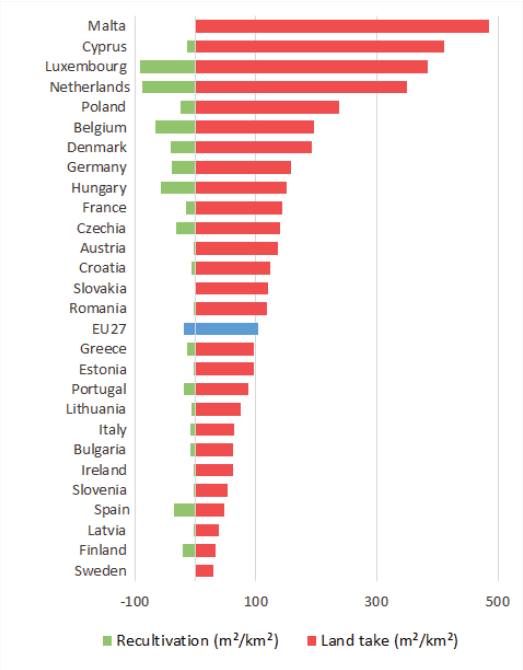
[37] Eurostat, Area under organic farming, February 2022

[38] 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).

Poland ranks above the EU average[39] as regards net land take with 214 m²/km² (EU-27 average 83.8 m²/km², Eurostat 2018).

In 2018, Poland updated its reporting on land degradation according to the Performance Review and Implementation System (PRAIS3) reporting platform[40] with actions intended to remedy the degradation identified.

Figure 11: Land take and re-cultivation in the EU-27 (m2/km2), 2012-2018[41]



However, Poland has not yet committed to set land degradation neutrality targets under UNCCD[42].

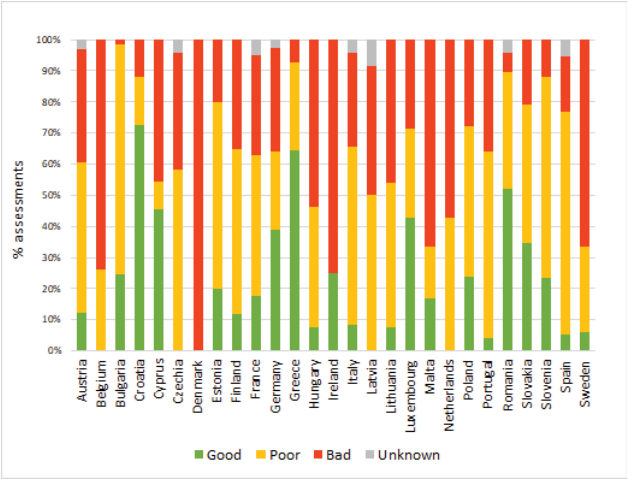
Forests and timber

The EU forest strategy for 2030, adopted in July 2021, is a 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, which contribute significantly to 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[43]. Bad conservation status increased in the EU from 27% in 2015 to 31% in 2018.

In Poland, forests cover 33.53% of the country's territory[44] and more than 75% of the assessments for forests protected under the Habitats Directive reveal a bad to poor status[45].

Figure 12: Conservation status of forests protected under the Habitats Directive in EU Member States, 2013-2018 (% assessments)[46]



The infringement procedure concerning the Białowieża Forest, launched against Poland in case C-441/17, is still not closed. The EU sent a letter of formal notice to Poland, pursuant to Article 260 of the Treaty on the functionning of the European Union, concerning non-implementation of the Court's judgment.

On 17 April 2018, the Court of Justice issued its judgment in case C-441/17 and ruled that Poland had failed to fulfil its obligations under the Habitats and the Birds Directive. In particular, Poland had failed to:

(i) ensure that the forest management plan for the Białowieża Forest District would not adversely affect the integrity of the Natura 2000 sites;

[39] Land take in Europe — European Environment Agency (europa.eu) fig 6.
[40] All Reports | Prais3 (unccd.int)
[41] European Environment Agency, Land take in Europe, December 2021.
[42] The LDN Target Setting Programme | UNCCD
[43] EEA, State of Nature in the EU
[44] EEA, Forest information system for Europe
[45] COM SWD (2021) 652
[46] European Environment Agency, Conservation status and trend in conservation status by habitat group - forests, January 2022.

(ii) establish the necessary conservation measures for the protected species and habitats;

(iii) guarantee the strict protection of protected species regarding their deliberate killing or disturbance, deterioration or destruction of their breeding sites in the Białowieża Forest District;

(iv) guarantee the protection of bird species regarding their deliberate killing, disturbance and protection of their nests.

Since the ruling was issued, the Commission has continuously monitored Poland's implementation measures necessary to comply with the Court's judgment. The Polish authorities agreed on a number of operational conclusions on this matter, covering short- and long-term measures related to the management of the forest and specific commitments that logging would only be possible under specific conditions. The Commission continues to closely monitor this issue.

The European Union Timber Regulation (EUTR)[47] prohibits the placing on the EU market of illegally harvested timber. In accordance with the EUTR, EU Member States' competent authorities must conduct regular checks on operators and traders, and apply penalties for non-compliance. With the amendment of Article 20 of the EUTR, reporting every 2 years has been changed to annual reporting and covers the calendar year as of 2019.

In the period from March 2017 to February 2019[48], Poland carried out 43 checks on domestic timber operators. It also carried out 170 checks on operators importing timber. Over the reporting period, it is estimated that Poland had 8 000 operators placing imported timber types onto the single market.

A proposal for a Regulation on making available on the EU market and exporting products associated with deforestation and forest degradation ('the Deforestation Regulation') was adopted on 17 November 2021. It followed a request from the Council in 2019 to table a legislative proposal to address the problem and a European Parliament resolution recommending the Commission come forward with an EU legal framework to halt and reverse EU-driven global deforestation.

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

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 to nature and the economy, many IAS also facilitate the outbreak and spread of infectious diseases, posing a threat to humans and wildlife.
The implementation of the EU Invasive Alien Species Regulation and other relevant legislation must be stepped up.
The biodiversity strategy for 2030 aims to manage recognised IAS and decrease the number of 'red list' species they threaten by 50%.

The core of Regulation (EU) 1143/2014 on IAS[49] ('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[50] on the review of the application of the IAS Regulation, the implementation of 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 IAS. However, the report also identified some challenges and areas for improvement. Given that the deadlines for complying with the various obligations of the IAS Regulation applied gradually between July 2016 and July 2019, it is premature to draw conclusions on specific aspects of the implementation of the IAS Regulation.

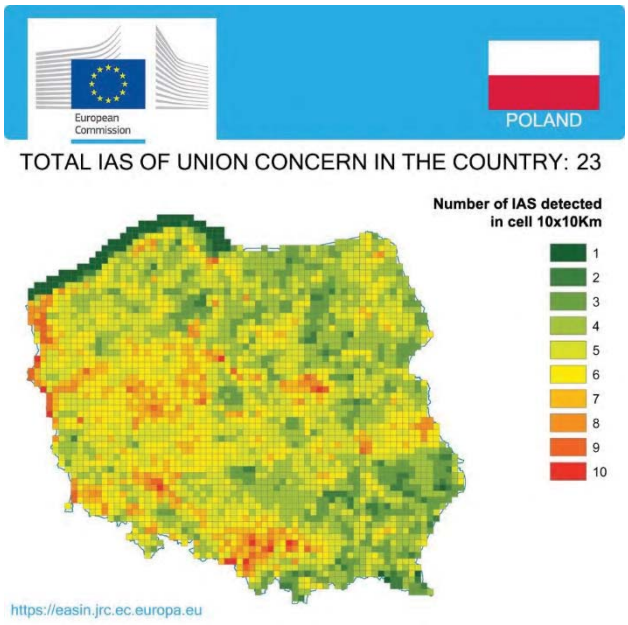
A 2021 report[51] on the baseline distribution shows that of the 66 species on the EU list, 23 have been observed

[47] Regulation (EC) No 2173/2005 of 20 December 2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community.
[48] COM/2020/629 final

[49] 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
[50] 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.
[51] 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.

in the environment in the Poland. The spread can be seen in Figure 13.

Figure 13: Number of IAS of EU concern, based on available georeferenced information for Poland, 2021[52]



An infringement case in relation to Poland is ongoing since it failed to draw up and implement one overarching action plan or a set of action plans fulfilling the requirements specified in Article 13 of of the IAS Regulation by 13 July 2019 and to send it/them to the Commission without delay.

2022 priority actions

- Complete the Natura 2000 designation process and put in place site specific conservation objectives and the necessary conservation measures for all sites to maintain/restore species and habitats of Community interest to a favourable conservation status across their natural range.
- Ensure implementation of priority measures identified in the PAF.
- Establish appropriate forest management practices to ensure full compliance with the Habitats and Birds Directives, including in terms of public participation in the forest managment planning and related access to justice.
- Step up action on reducing emissions related to fertiliser use on soils and avoiding carbon release from organic soil, on better livestock management as well as on increasing the area under organic farming.
- Reduce the excessive area of sealed and artificialised soil and remediate degraded areas of soil. To this end, to consider formally committing to land degradation neutrality targets under the relevant UNCCD agreement.
- Step up implementation action on the EU IAS Regulation.

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[53].

The Marine Strategy Framework Directive (MSFD)[54] requires Member States to achieve good environmental status (GES) for their marine waters. To that end, Member States must draw up marine strategies for their marine waters, and cooperate with Member States sharing the same marine region or sub-region. These marine strategies comprise different steps to be developed and implemented over six-year cycles.

The MSFD also requires Member States by 15 October 2018 to draw up a set of GES characteristics for each descriptor (Article 9), and to provide an 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 assessed Poland's 2018 determinations of GES for each of the MSFD's 11 descriptors[55] and whether these were appropriate (their 'level of adequacy' in relation to the Commission Decision on criteria and methodological standards for GES in marine waters[56]. A good or very good score in the Commission assessment indicates that the national determinations

[52] 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.

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

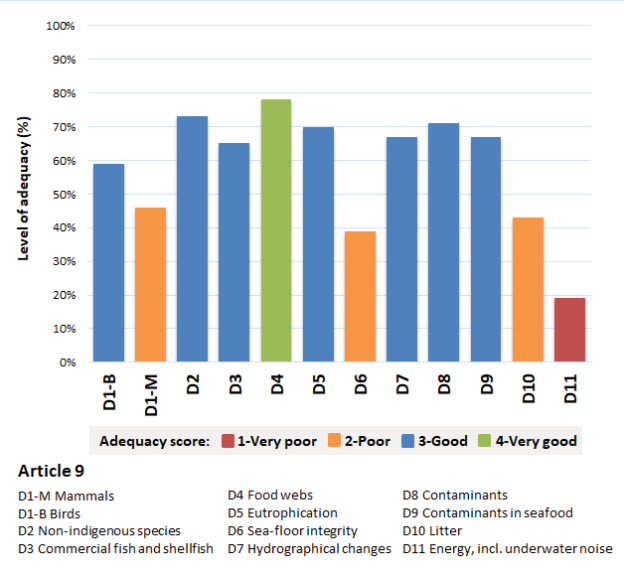
[54] Marine Strategy Framework Directive 2008/56/EC

[55] Annex I of Directive 2008/56/EC.

[56] Commission Decision (EU) 2017/848 laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU

of GES are well aligned with requirements of the Commission GES Decision and provide qualitative and quantitative national environmental objectives to be achieved for their marine waters.

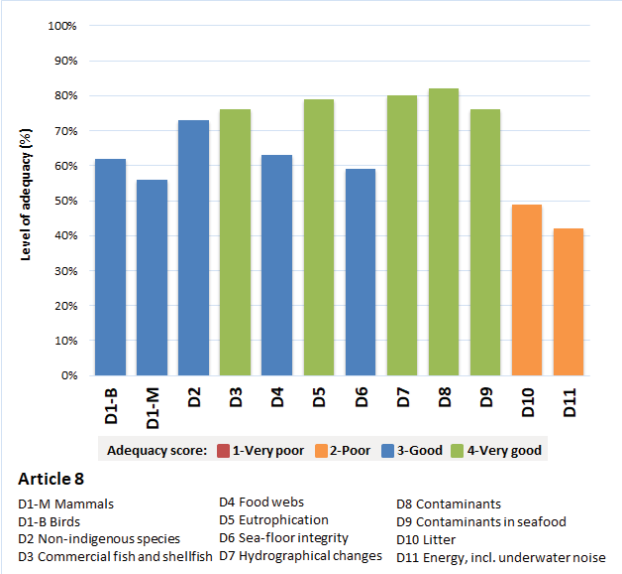
Figure 14: Level of adequacy of GES determination by Poland (BAL region) with criteria set under the Commission GES Decision – Article 9 (2018 reporting exercise)[57]



Poland has one marine region: BAL – Baltic Sea. In this marineregion, 8 out of 11 determinations of GES were assessed as good or very good. Poland's determination of GES is consistent with the requirements set under the Commission GES Decision for 7 out of 11 descriptors.

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

Figure 15: Level of adequacy of national assessment of Poland's marine environment (BAL region) with criteria set under the Commission's GES Decision – Article 8 (2018 reporting exercise)[58]



10 descriptors out of 11 were scored as good or very good. Poland's assessment of its marine environment is consistent with requirements set under the Commission GES Decision for 10 out of 11 descriptors.

Eutrophication and pollution of the Baltic Sea is a serious concern that affects 97% of the Baltic Sea.

As highlighted in the Commission's report on the implementation of the MSFD[59], 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.

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

2022 priority actions

- Ensure regional cooperation with Member States sharing the same marine (sub)region to address predominant pressures.
- Implement the recommendations made by the

[57] 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 analysis, these two sub-sections were considered as a whole after averaging them.

[58] Idem.

[59] COM(2020)259

Commission in the staff working document[60] accompanying the Communication[61] on recommendations per Member States and region on the 2018 updated reports for Articles 8, 9 and 10 of the MSFD.

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.

In 2013-2016, the LINKAGE project – linking systems, perspectives and disciplines for active biodiversity governance – was carried out. Its aim was to improve biodiversity governance in Poland and Norway by developing innovative protocols and technologies for biodiversity governance.

In 2013-2017, the 'Ecosystem services in young glacial landscapes – assessment of resources, threats and utilisation' project was carried out at the Institute of Geography and Spatial Organisation in Warsaw (Polish Academy of Sciences).

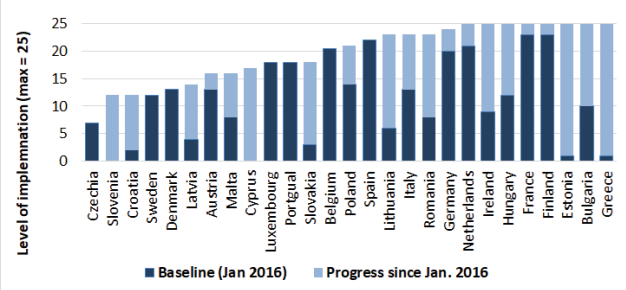
In 2015, a national mapping and assessment of ecosystems and their services supported by the Polish Ministry of Environment was completed. Since January 2015, the Chief Inspectorate for Environmental Protection has worked on an initiative that covers mapping and assessment of ecosystem services in different types of geoecosystems, as part of the environmental monitoring programme. The assessment is performed for 11 base stations (catchments) within integrated environmental monitoring.

In 2015-2018, Adam Mickiewicz University participated in the ESMERALDA project ('Enhancing ecosystem services mapping for policy and decision making') within the Horizon 2020 programme. The project aimed to deliver a flexible methodology for pan-European and regional assessments and sharing experience through a process of dialogue and knowledge co-creation.

In July 2015, the national ecosystem services partnership network in Poland was created. The Network webpage[62] provides information about recent projects, upcoming events, and other news about ecosystem assessment progress in Poland.

Poland has provided updated information, and progress has been recorded since January 2016 (see Figure 16). This assessment is based on 27 implementation questions and is updated every six months.

Figure 16: ESMERALDA MAES barometer, January 2016 - March 2021[63]

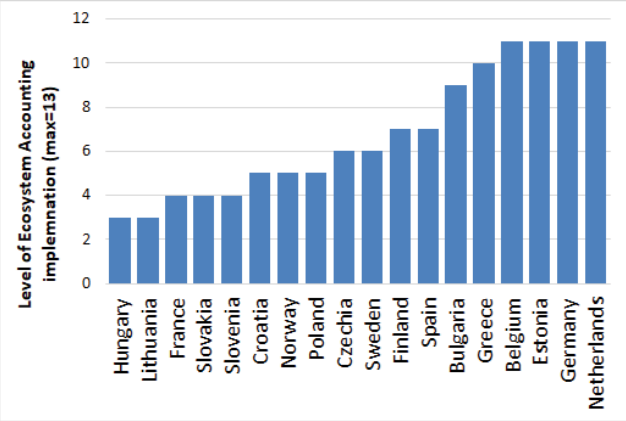


To assess progress on the implementation of ecosystem accounting, the Commission conducts a periodic review of Member States by sending out a survey containing 13 questions (see Figure 17).

[60] SWD(2022)1392.
[61] COM(2022)550.

[62] MAES-related developments in Poland
[63] European Commission, Joint Research Centre, Publication Office, EU Ecosystem assessment: summary for policymakers, page 80, May 2021.

Figure 17: Ecosystem accounting Barometer, September 2021[64]



2022 priority actions

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

[64] MAIA Portal, Mapping and assessment for Integrated Ecosystem Accounting (EU Horizon 2020 project), 2022. MAIA uses the System of Environmental Economic Accounting – Experimental Ecosystem Accounting (SEEA-EEA) as the methodological basis for the ecosystem accounting. The SEEA EA is an integrated an comprehensive statistical framework that is based on five core accounts: ecosystem extent, condition, services and monetary ecosystem asset."

3. Towards zero pollution

Clean air

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

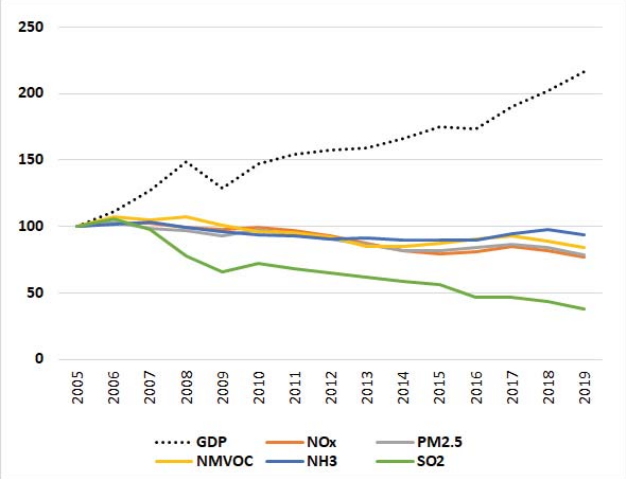
The EU has developed a comprehensive suite of clean-air legislation, which sets health-based air-quality standards[65] and emissions reduction commitments[66] by Member State for a number of air pollutants.

However, air quality in Poland continues to give cause for serious concern. The latest available annual estimates (for 2019) by the European Environment Agency[67] indicate about 39 300 premature deaths (or 490 300 years of life lost – YLL) attributable to fine particulate matter concentrations[68], 1 370 premature deaths (or 17 800 YLL) due to ozone concentrations[69] and 1 190 premature deaths (14 900 YLL) due to nitrogen dioxide concentrations[70] [71].

Emissions of several air pollutants have decreased significantly in Poland in recent years, while GDP growth continued (see Figure 18). According to the latest projections, submitted under Article 10(2) of the National Emission Reduction Commitments Directive (NECD) [72], Poland expects to reach its emission reduction commitments for SO_2, NH_3 and $PM_{2,5}$ for the period 2020 to 2029 and for most pollutants for 2030 onwards. Their projections do not, however, indicate they will meet their 2020-29 emission reduction commitments for NO_x and NMVOC or their 2030 onwards emission reduction commitment for $PM_{2.5}$. Latest inventory data submitted by Poland, prior to review by the Commission, indicate that Poland is in compliance with the emission reduction commitments for NO_x, SO_2, NH_3 and $PM_{2.5}$, and in non-compliance with the emission reduction commitment for NMVOC in 2020.

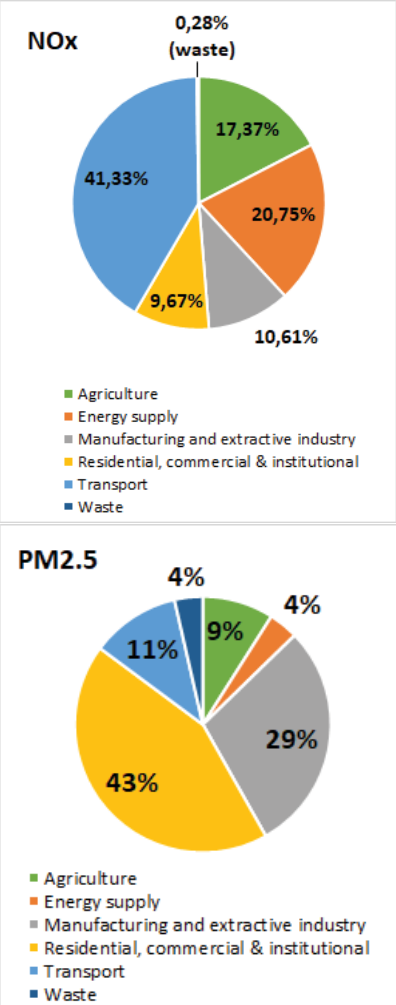
Poland submitted its national air pollution control programme (NAPCP) on 27 June 2019. However, according to the latest projections submitted in 2021, it is necessary to update the NAPCP and Poland reports that the apropriate works have started.

Figure 18: Emission trends of main pollutants/GDP in Poland, 2005-2019[73]



[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 micrometres or less. PM2.5 refers to particles with a diameter of 2.5 micrometres 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] European Environment Agency.

Figure 19: $PM_{2.5}$ and NO_X emissions by sector in Poland, 2019[74]



In 2020, levels exceeding the limit values set by the Ambient Air Quality Directive (AAQD) were registered for nitrogen dioxide (NO_2) in two air-quality zones (out of 45) and for particulate matter (PM_{10} and $PM_{2.5}$) in 16 and 2 zones respectively. Furthermore, in 3 air quality zones the target values regarding ozone concentration were not met [75].

Persistent breaches of air quality requirements, which have severe negative effects on health and environment, are being followed up by the European Commission through infringement procedures (mainly over PM_{10} and NO_2 exceedances) covering all Member States concerned, including Poland for exceedances of PM_{10} and NO_2 limit values.

The Court of Justice of the European Union (CJEU) has delivered a judgment on exceedances of PM_{10} limit values (C-336/16; COM vs Poland), confirming Poland's non-compliance with Directive 2008/50/EC. Subsequently, the European Commission decided to send a letter of formal notice to Poland for failing to comply with its obligations under the Directive on Ambient Air Quality and with the said ruling. By focusing on Poland's failure to act on and execute the judgment of the CJEU, the Commission is seeking to ensure that Poland will take decisive action to solve the problem. The Commission acknowledges that some progress has been made. However, it remains concerned by the pace of changes, particularly with regard to replacing outdated solid fuel boilers used for heating by individual households and measures covering the transport sector.

The Commission has also taken legal action against Poland on NO_2, for which the EU AAQD has set air quality standards since 2010. Full implementation of the air quality standards enshrined in EU legislation is key to effectively protecting human health and safeguarding the natural environment.

Poland has not yet ratified (i) the amended Gothenburg Protocol, (ii) the Heavy Metals Protocol, and (iii) the POPs Protocol under the UNECE Air Convention. It has also failed to sign or ratify three agreements under the Convention on Long-range Transboundary Air Pollution: (i) the Gothenburg Protocol to Abate Acidification, Eutrophication, and Ground-level Ozone; (ii) the Persistent Organic Pollutions Protocol, and (iii) the Heavy Metals Protocol.

In the 2019 EIR, Poland received priority actions calling for specific actions to be taken under the NAPCP – on which there has been some progress but these are reiterated in this report – and to reduce particulate matter, benzo(a)pyrene emissions and nitrogen oxides. There has been some progress on these reductions, but there remains a need to comply with EU standards.

2022 priority actions

- Take, in the context of the national air pollution control programme (NAPCP), actions to reduce emissions from the main sources mentioned above.
- Maintain downward emissions trends for air pollutants, and reduse adverse air-pollution impacts on health and the economy, to ensure future concentrations fall within WHO guideline value and fully comply with EU air quality standards, where these are not met.
- Poland is strongly encouraged to accelerate its ratification of the amended Gothenburg Protocol, the Heavy Metals Protocol and the POPs Protocol under the UNECE Air Convention.

[74] Idem.
[75] European Environment Agency, Eionet Central Data Repository

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)[76]. The Commission tabled a proposal in April 2022[77]. 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.

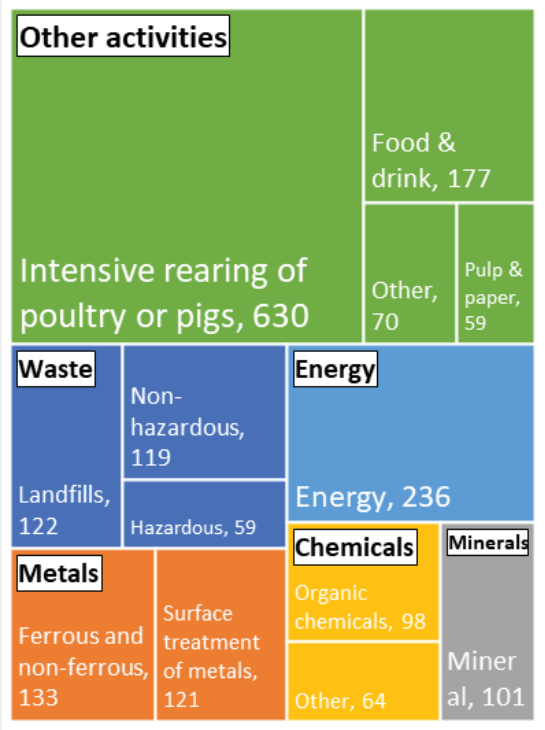
The overview of industrial activities regulated by IED below is based on data reported to the EU registry (2018)[78].

In Poland, around 2 000 industrial installations are required to have a permit based on the IED[79]. The distribution of installations is shown in Figure 20. This represents a decrease of more than 1 000 installations since the last report, linked mostly to fewer installations:

(i) in intensive rearing of polutry or pigs;
(ii) in the waste-management sector, including landfill;
(iii) in the ceramics sector; and
(iv) in the power generation sector.

The industrial sectors in Poland with the most IED installations in 2018 were the intensive rearing of poultry or pigs (32%), followed by the waste-management sector, including landfill (15%), the energy sector (12%) and the food and drink sector (9%).

Figure 20: Number of IED industrial installations per sector in Poland, 2018[80]



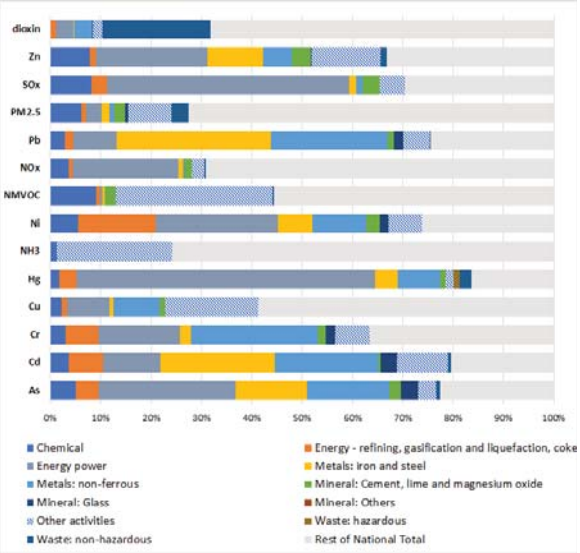
The industrial sectors identified as contributing the largest burden to the environment for **emissions to air** were:

(i) the energy sector for sulfur oxides (SOx), nitrogen oxides (NOx), arsenic (As), mercury (Hg), nickel (Ni) and zinc (Zn);
(ii) metal production sector for emissions of heavy metals such as lead (Pb) or cadmium (Cd);
(iii) chemicals production for Pb, Cd, chromium (Cr) and arsenic (As);
(iv) waste management for dioxins;
(v) coating and printing activities for non methane volatile organic compounds (NMVOCs); and
(vi) intensive rearing of poultry or pigs for ammonia (NH3).

The breakdown is shown in Figure 21.

[76] Directive 2010/75/EU covers industrial activities carried out above certain thresholds. It covers the energy industry, metal production, the mineral and chemical industry, waste management, and a wide range of industrial and agricultural sectors (e.g. intensive rearing of pigs and poultry, pulp and paper production, painting and cleaning).
[77] 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).
[78] European Environment Agency, European Industrial Emissions Portal.
[79] Poland also reported around 2 400 non-IED installations to the EU Registry for the year 2018.
[80] European Environment Agency, EU Registry, European Industrial Emissions Portal (data retrieved on 3 November 2021).

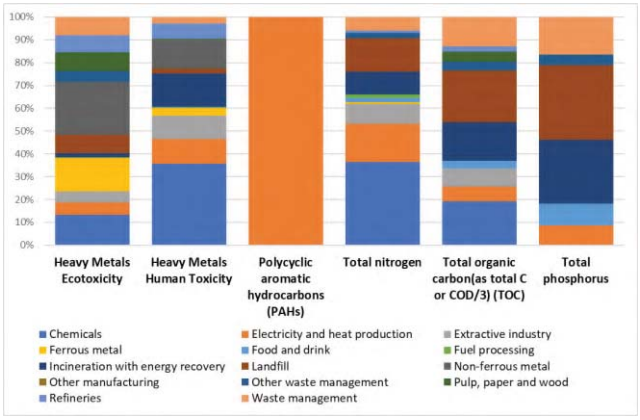
Figure 21: Emissions to air from IED sectors and the rest of national total air emissions in Poland, 2018[81]



Poland is one of the Member States with the highest damage costs associated with emissions to air. Three of the 30 E-PRTR facilities with the highest absolute damage costs from emissions of the main air pollutants and greenhouse gases in 2017 were power stations located in Poland. Poland was also the Member State with the fourth highest damage costs aggregated over all pollutant groups normalised against GDP[82]. This should be improved by the implementation of the best available techniques (BATs) associated emission levels for large combustion plants[83]. The latter will – on average and depending on the situation of individual plants – reduce emissions of sulfur dioxide by 25%, to 81%, nitrogen oxide by 8%, to 56%, dust by 31%, to 78%, and mercury by 19%, to 71% at EU level.

The environmental burdens for industrial emissions to water mainly result from the treatment of waste water for nitrogen, phosphorous, total organic carbon and heavy metals. However, no information is available as to the origin of this waste water. The chemical sector also contributes to emissions of heavy metals and total organic carbon while the energy sector contributes to emissions of polycyclic aromatic hydrocarbon (PAHs). The breakdown, based on E-PRTR data, is set out in Figure 22 below.

Figure 22: Relative releases to water from industry (%) in Poland, 2018[84]



The EU approach to enforcement under the IED creates strong rights for the public to have access to relevant information and to participate in the permitting process for potentially polluting installations. This empowers the public and NGOs to ensure that permits are appropriately granted and that the conditions of these permits are complied with. As part of environmental inspection, competent authorities undertake site visits at IED installations to take samples and to gather necessary information. According to Article 23(4) of the IED, site visits must be carried out between once a year and once every 3 years, depending on the environmental risks posed by the installations. In 2018, Poland undertook 757 site visits, most of which were to installations for: (i) the intensive rearing of poultry or pigs (27%); (ii) the energy sector (16%); and (iii) the waste management sector (15%).

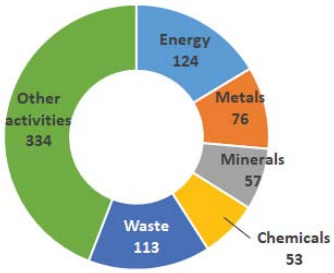
[81] European Environment Agency, LRTAP, Air pollutant emissions data viewer (Gothenburg Protocol, LRTAP Convention) 1990-2019 (data retrieved on 3 November 2021).

[82] EEA (2021). Costs of air pollution from European industrial facilities 2008–2017. Eionet Report - ETC/ATNI 2020/4. The ranking is based on the approach accounting for the value of a life year (VOLY), table 41, p.124 & table 44, p.136.

[83] Commission Implementing Decision (EU) 2017/1442 of 31 July 2017 establishing BAT Conclusions for Large Combustion Plants, OJ L 212, 17.8.2017

[84] 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 23: Number of inspections of IED installations in Poland in 2018[85]



The development of BATs reference documents (BREFs) and BAT conclusions ensures good collaboration between stakeholders and enables better implementation of the IED [86]. Since the last EIR report, the Commission adopted BAT conclusions for Poland for: for (i) waste incineration; (ii) the food, drink and milk industries; and (iii) surface treatment using organic solvents, including the preservation of wood and wood products with chemicals.

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

In 2019, Poland received priority actions to review permits and to strengthen control and enforcement to ensure compliance with newly adopted BAT conclusions. The Commission followed up on these actions through Poland's reporting to the EU registry. Currently, the Commission is working with Poland to verify the information reported about the permits granted for each installation in the scope of the IED.

It is worth mentioning that Poland leads the way amoung Member States in containing emissions of fluorinated greenhouse gases from refrigeration, air conditioning and heat pump equipment. Close monitoring of refrigerant leakages done through central electronic register of equipment operators established in 2016 has allowed for reducing the annual emissions of fluorinated greenhouse gases from that equipment from ca. 12% in 2016 to ca. 3% in 2020 [87]. Consequently, energy efficiency losses of the equipment, due to insufficient refrigerant, could be avoided.

2022 priority action

- Continue reducing emissions from the energy sector.

Major industrial accidents prevention – SEVESO

The main objectives of EU policy on major industrial accident prevention 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 the Directive 2012/18/EU (the Seveso-III Directive)[88].

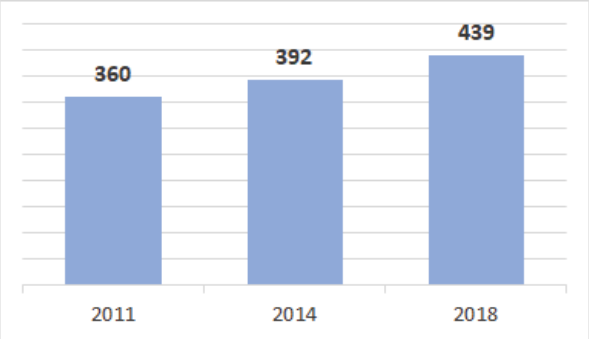
The below overview of industrial plants regulated by Seveso-III Directive ('Seveso establishments'), is based on data reported to the eSPIRS database (2018)[89] and the Poland report on the implementation of the Seveso-III Directive for 2015-2018[90].

In Poland, among the 439 Seveso establishments, 255 are categorised as lower-tier establishments (LTEs) and 184 as upper-tier establishments (UTEs), based on the quantity of hazardous substances likely to be present. The UTEs are subject to more stringent requirements. The development of the number of Seveso establishments is set out in Figure 24.

[85] European Environment Agency, EU Registry, European Industrial Emissions Portal (data retrieved on 3 November 2021).
[86] European Commission BAT reference documents
[86] Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances
[86] European Commission, Seveso Plants Information Retrieval System
[87] 'Chłodnictwo i Klimatyzacja', No. 10, 2020.

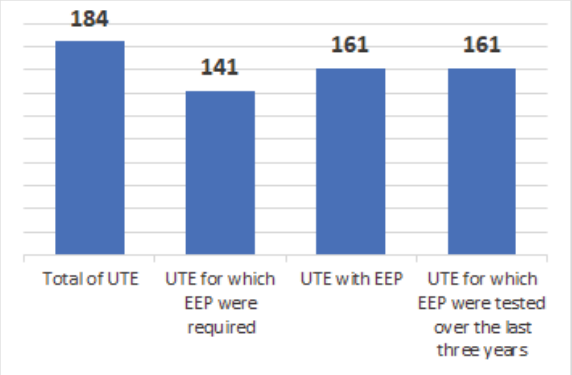
[88] Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances
[89] eSPIRS (Seveso Plants Information Retrieval System)
[90] As provided for by Article 21(2) of the Seveso-III Directive

Figure 24: Number of Seveso establishments in Poland, 2011, 2014, and 2018[91]



Many Seveso establishments are required to draw up external emergency plans (EEPs). These EEPs are essential to allow proper preparation and effective implementation of the necessary actions to protect the environment and the population should a major industrial accident occur at them. In Poland, an EEP is required for 141 UTEs. In 2018, 161 UTEs had an EEP and all of these EEPs had been tested within the previous 3 years. The summary is shown in Figure 25.

Figure 25: Situation regarding EEPs in Poland, 2018[92]

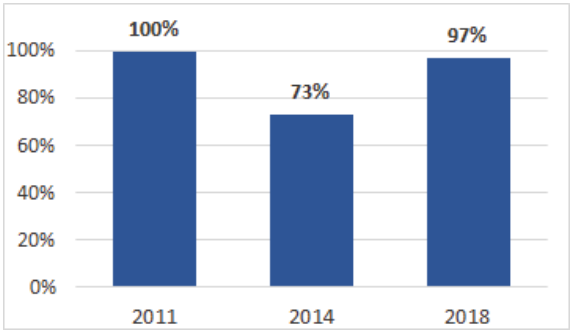


The information for the public referred to in Annex V of the Seveso-III Directive – especially in relation to how the public will be alerted if there is a major accident, the appropriate behaviour to take if there is a major accident, and the date of the last site visit – are permanently available for 99% of the Seveso establishments in Poland. This is an important provision in the Seveso-III Directive as public knowledge of this information may reduce the consequences of a major industrial accident.

[91] 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.
[92] Idem.

The share of UTEs for which information on safety measures and requisite behaviours was made available to the public over the last years is presented in Figure 26.

Figure 26: Share of UTEs for which information on safety measures and requisite behaviours was actively made available to the public in Poland, 2011, 2014 and 2018[93]



Poland has some issues with the transposition of the Seveso-III Directive.

2022 priority action

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

Noise

The Environmental Noise Directive[94] 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. Its main instruments in this respect are noise mapping and planning. A key target under the 2030 zero-pollution action plan is to reduce by 30% the share of people disturbed by transport noise compared to 2017.

Excessive noise from aircraft, railways and roads is one of the main causes of environmental health-related issues in the EU. It can cause ischaemic heart disease, stroke, interrupted sleep, cognitive impairment, and stress[95]. Based on the available data, the number of people exposed to noise in Poland reduced by 27% between 2012 and 2017.

In Poland, based on a limited set of data, environmental noise is estimated to cause at least around 1 000

[93] Idem.
[94] Directive 2002/49/EC
[95] WHO 2018, Environmental noise guidelines for the European region.

premature deaths and 3 000 cases of ischaemic heart disease annually [96]. Moreover, some 270 000 people suffer from disturbed sleep. On the basis of the latest full set of information that has been analysed, noise mapping of agglomerations, roads and railways remains incomplete. Poland also still lacks action plans for some roads and railways.

In the 2019 EIR, Poland received one priority action to complete noise action plans, where there has been limited progress as detailed above.

2022 priority action

- Complete action plans for noise management of roads and railways.

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 good status of water bodies as defined by the Water Framework Directive (WFD) will ensure that EU citizens benefit from good quality and safe drinking and bathing water. It will further ensure that the nutrient cycle (nitrogen and phosphorus) is managed in a more sustainable and resource-efficient way.

Water Framework Directive

The Water Framework Directive[97] is the cornerstone of EU water policy in the 21st century[98]. The WFD along with other water-related directives[99] set the framework for sustainable and integrated water management, which aims at a high level of protection of water resources, prevention of further deterioration and restoration to good status.

By March 2022, Member States are required to report on the third generation of river basin management plans (RBMPs) under the WFD. Poland has not yet reported it. The Commission will assess the reported status and progress, checking how the findings identified in the assessment of the second RBMPs[100] have been addressed.

In December 2021, the Commission published the 6th Implementation Report [101], which assesses implementation of the WFD and the Floods Directive. This report includes an assessment of: (i) the implementation of the programmes of measures; and (ii) the new priority substances. The assessment report for Poland [102] showed that new regulations are in progress and that Poland has implemented some basic and complementary measures to improve or maintain good water status. General progress was visible, but less than expected for all Polish river basins.

Based on reporting in the second RBMPs and data published in 2020[103], 31.2% of all surface water bodies[104] in Poland have good ecological status and only 59% have good chemical status (with 14.7% unknown). For groundwaters, 7.9% failed to achieve good chemical status and 7.3% are in poor quantitative status.

Figure 27 illustrates the proportion of surface water bodies in Poland and other European countries that failed to achieve good ecological status.

[96] 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.

[97] The Water Framework Directive (2000/60/EC).

[98] The EU Water Policy.

[99] 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), the Industrial Emissions Directive (2010/75/EU), and the new Regulation on minimum requirements for water reuse (2020/741).

[100] Detailed information can be found in the 5th Report from the Commission on the implementation of the Water Framework Directive and the Floods Directive, as well as in the 2019 EIR.

[101] See the 6th Implementation Report of the WFD and FD.

[102] 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: Poland, 2022.

[103] WISE Freshwater (europa.eu)

[104] rivers, lakes, transitional, coastal and territorial waters.

Figure 27: Proportion of surface water bodies (rivers, lakes, transitional and coastal waters) in less than good ecological status per River Basin District[105]

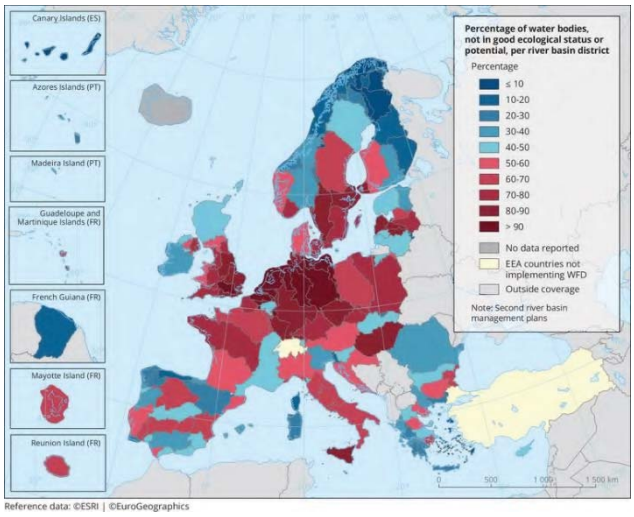
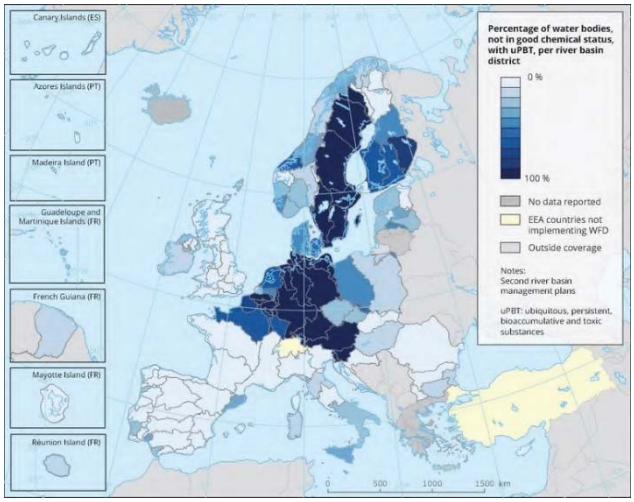


Figure 28 presents the percentage of surface water bodies in Poland and other European countries failing to achieve good chemical status. For Poland the percentage is 26.4%, including water bodies failing due to substances behaving as ubiquitous persistent, bio-accumulative, toxic substances (uPBTs). Without uPBTs, 1% of surface water bodies fail to have good chemical status (with 15% unknown).

Figure 28: Percentage of surface water bodies not achieving good chemical status[106]



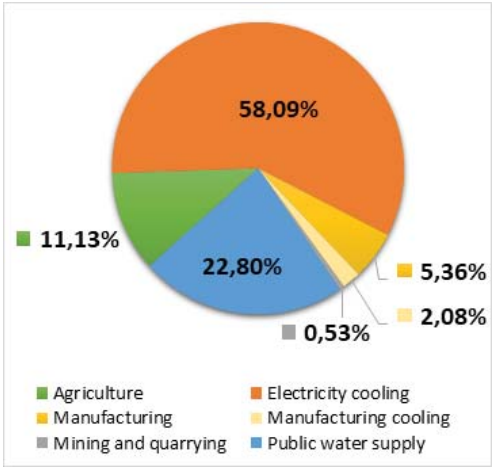
Under the IED framework, it should be stressed that Poland showed over the last decade a significant decrease (53%) in releases of heavy metals such as Cd, Hg, Ni, Pbb and in Total Organic Carbon, TOC (13.1%) to water[107].

Total water abstracted annually (corresponding to 2019 baseline) in Poland from surface and groundwater sources is 9.078.44 hm^3 (EEA, 2021). The percentage for water abstraction per sector is:

(i) 11.13% for agriculture;
(ii) 22.80% for public water supply;
(iii) 58.09% for electricity cooling;
(iv) 5.36% for manufacturing;
(v) 2.08% for manufacturing cooling;
(vi) 0.53% for mining and quarrying.

This breakdown is illustrated in Figure 29. Poland uses a register to control water abstractions. The register is updated yearly. Small abstractions do not require permits in Poland and not all are registered.

Figure 29: Water abstraction per sector in Poland[108]

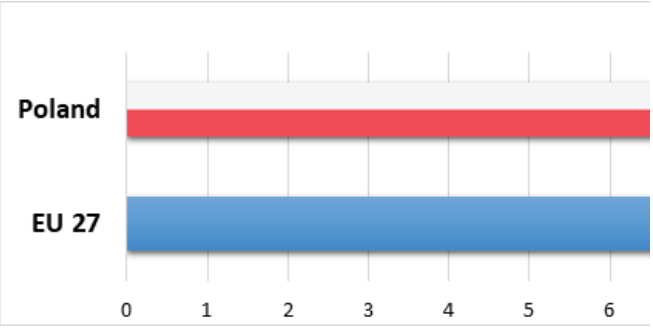


In Poland, the water exploitation index plus (WEI+)[109] is 6.87%, which is well below the 20% that is generally considered an indication of water scarcity[110].

The bar chart below presents the WEI+ index in Poland and other European countries. Poland is ranked 9th (with 1st indicating a country that has a high WEI+ and therefore a country with water-scarcity problems) at EU level on the WEI+.

[105] European Environment Agency, 2021.
[106] European Environment Agency, December 2019.
[107] European Environment Agency, June 2021.
[108] European Environment Agency, Water abstraction by source and economic sector in Europe, 2022.
[109] The Water Exploitation Index plus (WEI+) is a measure of total fresh water use as a percentage of the renewable fresh water resources (groundwater and surface water) at a given time and place. It quantifies how much water is abstracted and how much water is returned after use to the environment.
[110] 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 30 : Water exploitation index plus (WEI+) inside EU, 2017[111]



Poland, in order to overcome water shortages and to cope with drought and climate change, has begun drafting a list to introduce solutions which will encourage or necessitate increased retention, both in cities and in rural areas. In its work to achieve Sustainable Development Goals (SDGs) with an environmental dimension, Poland focuses primarily on SDG 6 (increasing available water resources), amoung other SDGs. A boost to implementing the environmental SDGs was the agreement on and adoption of the 2030 national environmental policy, the development strategy in the area of the environment and water management, setting several environmental priorities[112].

Floods Directive

In December 2021, the Commission published the 6th Implementation Report. It includes the review and update of the preliminary flood risk assessments (PFRAs) during the second cycle (2016-2021).

The assessment report[113] found that in Poland the main PFRAs should ensure that information is presented clearly with a distinction made between information on the methodology used and the summary data. Poland should give attention to developing trends – e.g. areas in which flood risk seems to be decreasing and areas in which it seems to get worse over time and why. The areas of most concern should be highlighted, alongside highlighting good practices on flood monitoring, reporting, and effective flood defence measures, which could be applied elsewhere. Further analysis and modelling is needed, especially for pluvial floods and winter floods due to ice accumulation. The description of the international information exchange could be more specific regarding flood management and designation of the areas of potential significant flood risk (APSFRs).

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

Drinking Water Directive

On the Drinking Water Directive[114], no new assessment of the quality of drinking water is available since the 2019 EIR. The quality of drinking water in Poland has not been indicated as an area of concern.

The recast Directive[115] entered into force on 12 January 2021, and Member States have until 12 January 2023 to transpose it into their national legal system. Poland will have to comply with these reviewed quality standards.

Bathing Water Directive

Regarding the Bathing Water Directive, Figure 31 shows that in 2020, out of the 602 Polish bathing waters, 22.1% were of excellent quality and 32.1% were of at least sufficient quality, while 66.6% were not classified[116]. Detailed information on Polish bathing waters is available via an interactive map viewer from the European Environment Agency.

[111] EEA, Water exploitation Index Plus, 2022.
[112] Poland country profile - SDGs and the environment — European Environment Agency (europa.eu)
[113] 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: Poland, 2022.
[114] OJ L 330, 5.12.1998, p. 32-54.
[115] OJ L 435, 23.12.2020, p. 1-62.
[116] European Environment Agency, 2021. State of bathing water – European Environment Agency (europa.eu)

Figure 31: Bathing water quality in Europe in the 2020 season[117]

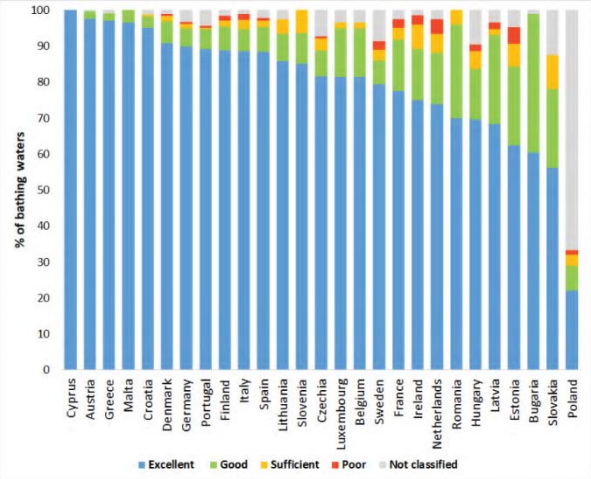
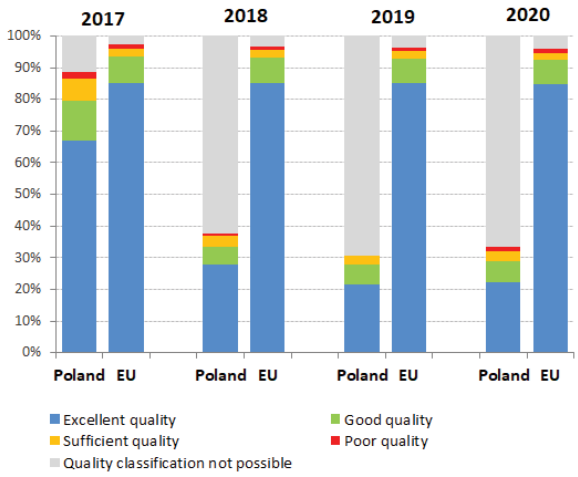


Figure 32: Poland, bathing water quality 2017-2020[118]



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

Nitrates Directive

The latest Commission report on the implementation of the Nitrates Directive [119], covering 2016-2019[120], warns that nitrates are still causing harmful pollution to water in the EU. Excessive nitrates in water are harmful to both human health and ecosystems, causing oxygen depletion and eutrophication. Where national authorities and farmers have cleaned up waters, it has had a positive impact on drinking water supply and biodiversity, and on the sectors such as fisheries and tourism that depend on them. Nevertheless, excessive fertilisation remains a problem in many parts of the EU.

In Poland, the livestock density is close to the EU average and the net nitrogen and phosphorus surplus slightly above the EU average.

There is a well developed network of monitoring stations. The groundwater quality is generally good, with some hotspots having a nitrate concentration > 50 mg/l. A very high number of surface waters have been found to be eutrophic. Eutrophication is affecting both inland and marine waters.

The action programme was revised in 2018.

Poland is one of the Member States facing the greatest challenges in tackling nutrient pollution from agriculture.

Urban Waste Water Treatment Directive

Poland has, over the years, encountered difficulties in meeting its obligations under the Urban Waste Water Treatment Directive (UWWTD). According to the last available data [121], the compliance rate in Poland is 87%, which is higher than the EU average of 76% in 2018. However, regarding the amount of urban wastewater which still needs to be collected or treated according to the requirements of the UWWTD, further efforts are needed to provide:

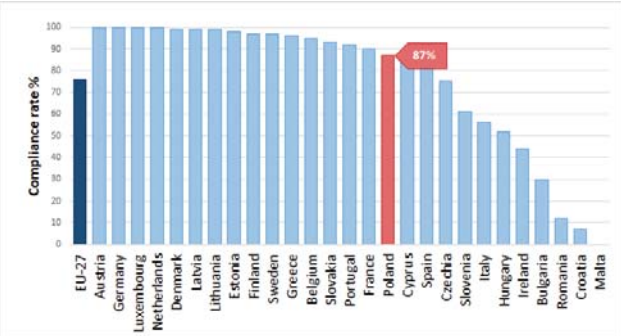
(i) collection of additional 0.12 million p.e of urban waste water (0.3%);
(ii) biological treatment of an additional 0.45 million p.e. of urban waste water (1.2%); and
(iii) biological treatment with nitrogen and phosphorus removal of an additional 1.31 million p.e. of urban waste water (4.0%).

All Polish agglomerations should have been compliant with the UWWTD requirements by 31 December 2015, according to the agreements under the [2003] Accession Treaty. Yet, to date, 1 123 agglomerations still do not have a compliant collecting system for urban waste water. Moreover, in 1 232 agglomerations, the urban wastewater entering collecting systems is not subject to appropriate treatment before being discharged. Finally, in 415 agglomerations, Poland has not ensured that urban waste water, entering collecting systems and discharged into sensitive areas, is subject to more stringent treatment. Despite some progress and EU financial support from cohesion policy funds, the Commission has concluded that the authorities have failed to prove compliance for these agglomerations.

[117] European Environment Agency, Bathing Water Quality in 2020, 2022.
[118] European Environment Agency, European Bathing Water Quality in 2017, 2018, 2019, 2020.
[119] Implementation of the Nitrates Directive in the EU.
[120] Last implementation report 2016-2019

[121] WISE – Country profiles on urban water treatment - Poland

Figure 33: 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') (%), 2018 [122]



Despite the improvement in compliance over recent years, more than 1 000 agglomerations still fail to comply with the Directive's collection and treatment requirements. In the reasoned opinion sent in May 2020, the Commission urged Poland to ensure that urban waste water is adequately collected and treated, as required by Directive 91/271/EEC. Should Poland fail to take appropriate action, the Commission may decide to refer the matter to the Court of Justice.

2022 priority actions

- Poland should asses new physical changes to water bodies in line with Article 4(7) of the WFD and the consider alternative options and suitable mitigation measures;
- Continue current efforts to further reduce pollution from water bodies;
- Poland should improve the coordinated implementation of water and nature policies;
- Complete implementation of the Urban Waste Water Treatment Directive for all agglomerations, by building up the necessary infrastructure;
- Strengthen the action programme to tackle the eutrophication issues for both inland and marine waters for which the agriculture pressure is significant.

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'[123], 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[124] provides baseline protection for human health and the environment. It also ensures stability and predictability for businesses operating within the single 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 ('CLP Regulation'). In December 2020, the Commission assessed the Member States' reports on the implementation and enforcement of these Regulations[125], in line with REACH Article 117(1) and Article 46(2) of the CLP Regulation. According to the latest available data, national enforcement structures have not changed significantly in recent years. However, it is apparent from this report that there are still many disparities in the implementation of the REACH and CLP Regulations, and notably in the area of law enforcement. Recorded compliance levels in Member States appear relatively stable over time, but with a slight worsening trend, which is likely due to: (i) enforcement authorities becoming 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 [126] of the two main EU Regulations (the REACH Regulation and the CLP Regulation) on chemicals using a set of indicators covering different aspects of enforcement.

Responsibility for checking compliance with REACH in Poland lies with the following authorities[127]:

- The State Sanitary Inspectorate (lead enforcement authority).
- Inspectorate of Environmental Protection

[122] European Commission, WISE Freshwater, 2021.

[123] COM(2020) 667 final

[124] REACH: OJ L 396, 30.12.2006, p.1. - CLP: OJ L 252, 31.12.2006, p.1

[125] European Commission, Final report on the operation of REACH and CLP 2020.

[126] European Commission, REACH and CLP enforcement: EU level enforcement indicators

[127] European Commission, REACH and CLP enforcement: EU level enforcement indicators

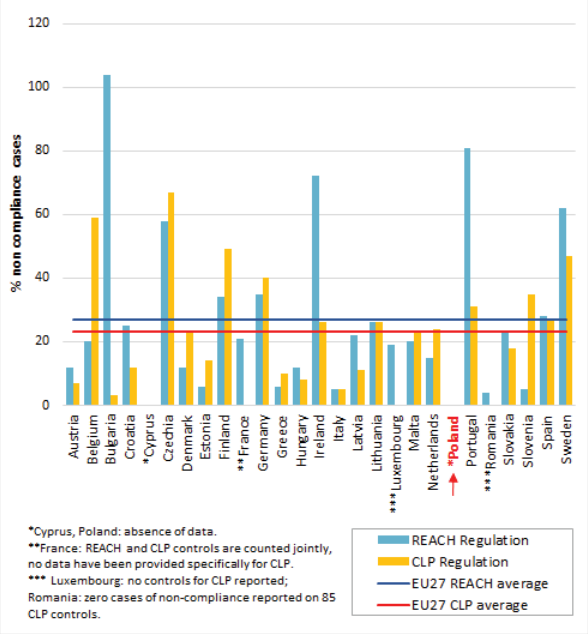
- The State Labour Inspectorate
- Trade Inspection
- State Fire Service
- Customs

Poland has not devised and doesn't plan to devise any strategy for the enforcement of REACH and CLP regulations[128].

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

Poland's report required under Article 117 of the REACH Regulation and Article 46 of the CLP Regulation contains no data about staff members allocated or controls carried out in the reporting period (2015-2019)[129].

Figure 34: Percentage of non-compliance cases out of the total number of REACH and CLP controls in 2019 per Member State and compared to the EU average[130]



2022 priority actions

- Upgrade implementation and enforcement administrative capacities to support a zero tolerance approach to non-compliance;
- Poland is invited to devise and implement strategies to enforce the REACH and CLP Regulations.

[128] European Commission, Final report on the operation of REACH and CLP 2020, p. 76.
[129] European Commission, Final report on the operation of REACH and CLP 2020, p. 87-88.
[130] European Commission, Final report on the operation of REACH and CLP 2020, pp.87-88.

4. Climate action

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

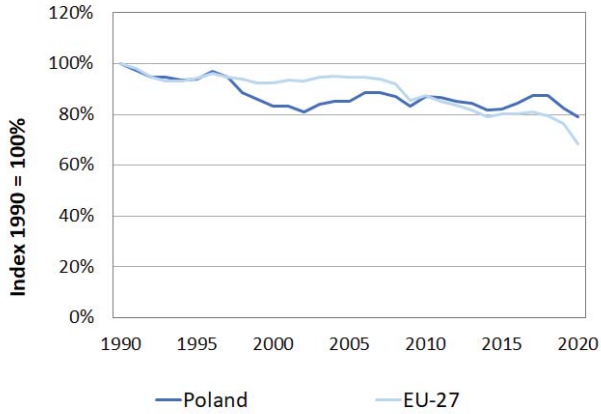
In 2019, Poland submitted its integrated national energy and climate plan (NECP) for 2021-2030. In 2021, Poland adopted its national energy strategy looking ahead to 2040. It provides an indicative target of a 30% reduction in total greenhouse gas emissions by 2030 compared to 1990.

In its recovery and resilience plan (RRP), Poland allocates nearly 42.7% of the plan to meeting climate objectives and outlines crucial reforms and investments to further the green transition.

Poland published its first national adaptation strategy in 2013. The 2020 strategic adaptation plan's main goal is to ensure sustainable development and effective functioning of the economy and society in the conditions of climate change.

Poland has made limited progress over the past 2 decades in decarbonising its economy. Compared to 1990, the country's total emissions in 2020 were 21% lower (see Figure 35).

Figure 35: Total greenhouse gas emissions (incl. international aviation) in Poland, 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. Under EU legislation, Poland has targets of: (i) limiting the increase of greenhouse gas emissions in the non-ETS sectors (buildings, road and domestic maritime transport, agriculture, waste and small industries) to +14% by 2020; and (ii) reduce emissions by 7% by 2030 compared to 2005 levels. The country's non-ETS emissions in 2019 were very close to its 2020 target. In its national energy and climate plan, Poland intends to implement additional measures to achieve non-ETS emissions reductions in line with its current non-ETS emission reduction target for 2030 of -7% (see Figure 36).

[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.

Figure 36: Emissions and targets under the effort sharing decision/ effort sharing regulation in Poland, 2020 and 2030 as percentage change from 2005

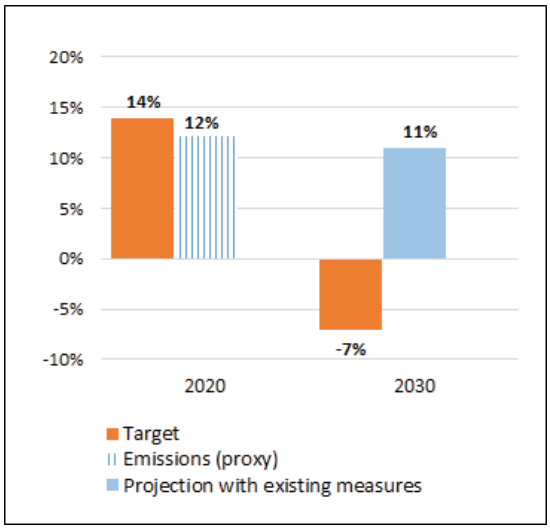
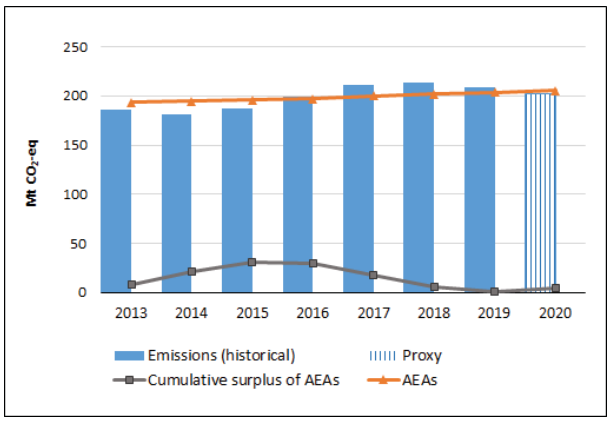


Figure 37: Emissions, annual emission allocations (AEAs) and accumulated surplus/deficit of AEAs under the effort sharing decision in Poland, 2013-2020



Key sectoral developments

On road transport, the GHG intensity of vehicle fuels in Poland decreased by 4.2% between 2010 and 2019. The country needs to act swiftly to meet the current EU-wide target of a 6% reduction. To meet this target, Member States can, for example: (i) further expand the use of electricity in road transport; (ii) support the use of biofuels, advanced biofuels in particular; (iii) incentivise the development and deployment of renewable fuels of non-biological origin; and (iv) reduce upstream emissions before refining processes.

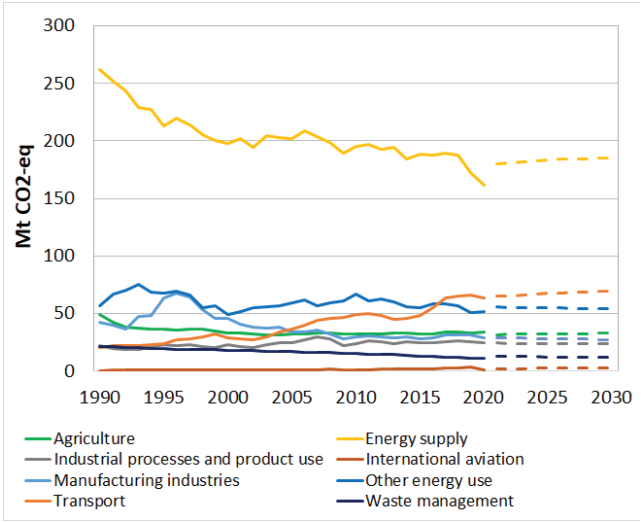
Road transport represented 16% of Poland's total GHG emissions in 2019. Sectoral emissions have increased by 89% compared to 2005. Poland intends to: (i) accelerate its electrification of transport, including by expanding the charging infrastructure; (ii) promote the use of alternative fuels, including hydrogen; and (iii) advance the development of batteries.

On buildings, the national energy and climate plan outlines a number of actions, with a quantitative objective to increase the share of thermally insulated residential buildings to 70% in 2030 (compared with 58.8% in 2015). It also aims to decrease the number of people living in sub-standard conditions due to overpopulation, poor technical condition or absence of technical facilities to 3.3 million in 2030 (from 5 360 000 in 2011). Poland submitted its long term renovation strategy to the Commission in February 2022.

On agriculture, the sector is still not structurally on a low-carbon pathway. Non-CO_2 greenhouse gas emissions, such as methane emissions from livestock, continue to stagnate rather than decrease.

Figure 38 shows GHG emissions by sector.

Figure 38: Greenhouse gas emissions by sector in Poland[134] – historical emissions 1990-2019, projections 2021-2030[135]



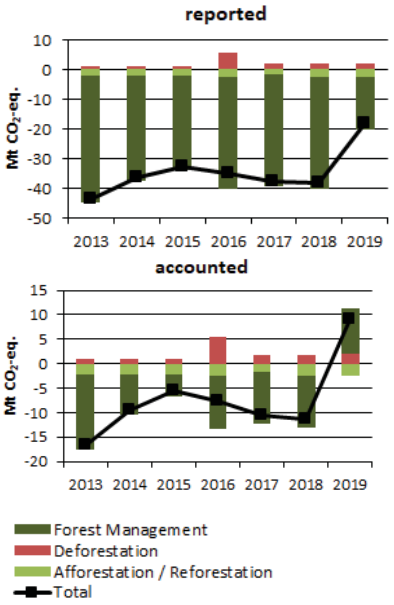
In the LULUCF sector, Poland expects a further decrease of net removals by 2030. Quantities reported under the Kyoto Protocol for the LULUCF sector in Poland show net removals of, on average, 34.6 Mt CO_2-eq for the period 2013 to 2019. In this regard, Poland contributes 10% of the annual EU-27 average sink of -344.9 Mt CO_2-eq (see Figure 39). Accounting for the same period depicts net

[134] 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.

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

credits of, on average, -7.5 Mt CO_2-eq, which corresponds to 6.5% of the EU-27 accounted sink of -115.0 Mt CO_2-eq. Reported net removals and accounted net credits decreased between 2013 and 2015, increased until 2018 and sharply dropped in 2019, resulting in net debits for that year. Poland is one of 14 EU Member States that show net debits for at least one year in this preliminary accounting period.

Figure 39: Reported and accounted emissions and removals from LULUCF in Poland (Mt CO_2-eq.)[136]



Use of revenues from the auctioning of EU ETS allowances

The total revenues from auctioning emission allowances under the EU ETS over 2012-2021 were EUR 13.6 billion. In Poland, revenues are not earmarked, example projects have been reported for around 50% of revenues to specific projects funded in relation to climate and energy purposes.

2022 priority actions

- Continue a just transition for coal mining regions and decarbonisation of the energy mix. Poland remains highly dependent on coal and lignite and the phase-out of coal-fired generation poses a significant challenge. Investment in the energy sector is also necessary given the ageing infrastructure.
- Seize the potential for onshore and offshore wind power development.
- Introduce measures to increase energy system integration and the decarbonisation of gas consumption, including by developing the market for storage technologies and clean hydrogen.
- Deploy zero emission transport or low-emission transport, in particular zero-emissions public transport in larger cities, and improve charging infrastructure. Improve access to public transport between cities, towns, and rural areas.
- Continue developing green sectors of the economy and creating new high-skilled jobs by increasing research and innovation. Between 2014 and 2018, the number of green jobs in Poland increased by 20%.

[136] 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 EU

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 Recovery and Resilience Facility) and the 'do no significant harm'' principle across the EU budget. The renewed commitments made at COP26 (Glasgow, October-November 2021), and the Biodiversity Convention COP15 (April-May 2022)[137] will also be reflected in the EU budget.

Overall environmental investment gaps (EU-27)

The EU's investment needs for the green transition cover a range of interlinked areas. The additional investment needs over 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 a year (EU-27)[138], with further EUR 130 billion a year to deliver the EU's core environmental objectives[139]. The costs of climate-change adaptation can also be significant, and are estimated to reach a total of EUR 35-62 billion (narrower scope) or EUR 158-518 billion (wider scope) per year[140]. Those investment needs reflect the implementation objectives to 2020 and to 2030 (except for climate-change adaptation, the costs of which are expected to last over a longer time horizon).

A preliminary update of the EU's core environmental investment gap is provided in the Table 1[141]. Almost 40% of the environmental-investment needs relate to dealing with pollution, which accounts for over 70% of the investment gap 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 EU's environmental investment gaps, by environmental objective, 2021-2030 (per year)[142]

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 [143]	21.5	20%
R & D & I and other	6.2	6%
Total	**110.1**	**100%**

Environmental-investment needs in Poland

There has been a clear shift of investment priorities in Poland towards support for climate, energy, and transport policies, as seen in the RRP. An estimated EUR 15.1 billion will be spent under the Recovery and Resilience Fund on investments covering a wide range of economic activities, such as:

- offshore wind energy production;
- energy renovation of housing combined with removing coal-fired heaters;
- hydrogen technologies;

[137] The Convention on Biological Diversity, Post-2020 Global Biodiversity Framework.
[138] SWD(2021)621, accompanying proposal COM(2021) 557 to amend the REDII Directive (EU) 2018/2001.
[139] SWD(2020) 98 final/2.
[140] SWD(2018)292. Impact assessment accompanying the Proposal for the LIFE Regulation (COM(2018) 385).
[141] With decreases due to Brexit and consolidation of some objectives. Source: DG ENV "Study supporting EU green investment needs analysis" (ongoing, 2021-2023) and DG ENV internal analysis "Environmental investment needs and financing in the EU's green transition" July 2020.
[142] 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] 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.

- clean urban projects;
- sustainable water management in rural areas;
- and sustainable transport.

Pollution prevention & control

The EU's first Clean-Air Outlook[144] under the clean-air programme estimated that the total air pollution control costs for Poland to reach the NECD emission reduction requirements (ERRs)[145] by 2030 amount to EUR 8 016 million per year. This includes EUR 6 019 million for capital investment (assuming the achievement of the 2030 climate and energy targets).

The second Clean-Air Outlook[146] suggests that the EU would largely achieve the reductions of air pollutant emissions that correspond to the obligations under the NEC Directive for 2030 if: (i) all relevant legislation adopted up to 2018 is implemented (including all air pollution and the 2030 climate and energy targets set in 2018); and (ii) Member States also implemented the measures announced in their NAPCPs. However, this excludes ammonia (NH_3) levels in 15 Member States, including Poland.

Water management

According to the OECD study 'Financing a Water Secure Future' (2022)[147], Poland relies on a mix of conventional (e.g. groundwater) and non-conventional (e.g. desalination) resources for its water supply. EU funding has provided a significant share of public funding over the past decade[148]. By 2030, the cumulative additional investment need for Poland was estimated at EUR 11.4 billion (around EUR 1.14 billion per year) over baseline levels, around 88% of which related to wastewater[149]. 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 regard.

Waste & the circular economy

According to a Commission study[152], in order to meet the recycling targets for municipal waste and packaging waste, Poland still needs to invest an additional EUR 1.55 billion (around EUR 221.7 million per year) between 2021-2027 over baselines in:

(i) collection;
(ii) recycling reprocessors;
(iii) biowaste treatment;
(iv) waste sorting facilities; and
(v) waste registry digitalisation.

This does not include the investment necessary for other key waste streams (plastics, textile, furniture) or to unlock higher uptake of circularity and waste prevention across the economy.

Biodiversity & ecosystems

The recently submitted prioritised action framework (PAF) for Poland shows that nature protection costs (including Natura 2000) in 2021-27 amount to EUR 4.51 billion – or around EUR 644.2 million per year (including EUR 188 million one-off costs)[153]. This does not cover additional costs to implement the biodiversity strategy to 2030, including costs relating to increased protection and restoration.

EU environmental funding 2014-2020

The multiannual financial framework (MFF) for 2014-2020 allocated almost EUR 960 billion (in commitments, 2011 prices)[154] for the EU. 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[155]. The 2014-2020

[144] International Institute for Applied Systems Analysis (IIASA), Progress towards the achievement of the EU's air quality and emissions objectives, 2018.

[145] Covering the reductions of and the emission ceilings for 5 atmospheric pollutants, SO_x, NO_x, $PM_{2.5}$, NH_3 and VOC by 2030, compared to 2005. Source: Progress towards the achievement of the EU's air quality and emissions objectives, IIASA 2018. (page 29). Requirements are based on Directive (EU) 2016/2284.

[146] COM(2021) 3 final. International Institute for Applied Systems Analysis (IIASA), Support to the development of the second Clean Air Outlook, 2020 and Annex.

[147] OECD, Financing a Water Secure Future, 2022.

[148] OECD, Financing a Water Secure Future, 2022.

[149] OECD, Poland - Country fact sheet - Financing Water Supply, Sanitation and Flood Protection

[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 Commision, Study on investment needs in the waste sector and on the financing of municipal waste management in Member States, 2019.

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

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

[155] The European Structural and Investment (ESI) Funds include the European Regional Development Fund (ERDF), the Cohesion Fund (CF),

MFF budget was subsequently topped up with over EUR 50 billion (in current prices) from the REACT-EU programme for cohesion-policy action against COVID-19[156].

Poland received EUR 90.8 billion from the ESI Funds over 2014-2020 to invest in job creation and a sustainable and healthy economy and environment. Planned direct environmental investment accounted for nearly EUR 6 billion, with a further EUR 7.1 billion identified as indirect environmental investment value, totalling EUR 13.1 billion. Figure 40 shows an overview of (planned) individual ESI Funds financing earmarked for Poland (EU amounts, without national amounts).

Figure 40: ESI Funds allocated to Poland, including environmental investments, 2014-2020[157]

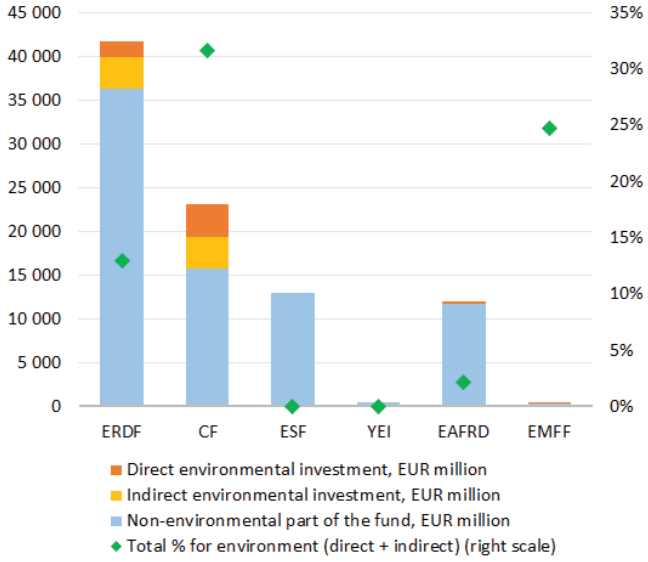


Table 2: Direct and indirect environmental investments under the ESI Funds in Poland, 2014-2020[158]

Instrument	Allocations for the environment (EUR million)
Under cohesion policy (ERDF + CF)	**12 726.6**
Direct environmental investments	5 606.3
water	2 779.4
waste	532.8
air quality	441.4
biodiversity and nature	516.9
land rehabilitation	271.3
climate and risk management	1 064.6
Indirect environmental investments	7 120.3
renewable energy	482.0
energy efficiency	1 089.4
other energy [159]	295.4
sustainable transport	4 960.7
sustainable tourism	61.6
business development, R&I	231.3
Under EAFRD/rural development	**252.5**
Direct environmental investments	252.5
climate and risk management	252.5
Under EMFF	**131.6**
Direct environmental investments	122.3
environment protection & resource efficiency	122.3
Indirect environmental investments	9.3
business development, R&I	9.3
Under ESI Funds total	**13 110.7**
Direct environmental investments	5 981.1
Indirect environmental investments	7 129.6

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, Horizon 2020, or loans from the European Investment Bank (EIB), which add up to an estimated total of EUR 13.4 billion of EU environmental financing for Poland in 2014-2020.

The LIFE programme[160] is entirely dedicated to environmental and climate objectives. It finances pilot

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).

[156] Regulation (EU) 2020/2221

[157] European Commission, 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).

[158] European Commission, DG Environment - Data analysis. The values of environmental investments identified here in the specific environmental areas may differ from the tracking values at cohesiondata.ec.europa.eu, e.g. for clean air or biodiversity due to two factors: the set of environmental coefficients used and the range of funds assessed. DG Environment's analysis here covered the full range of ESI Funds. See also the footnote for the table "ESI Funds allocated to Poland, including environmental investments, 2014-2020".

[159] 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.

and best practice actions for green solutions to be deployed. In 2014-2020, Poland received EU support for 13 LIFE projects (for nature and the environment) with EUR 42.7 million from the LIFE programme (out of 1 028 EU-27 LIFE projects, with a total EU contribution of EUR 1.74 billion)[161].

In 2014-2020, Horizon 2020 allocated about EUR 22.8 million for Poland, in particular, for the circular economy, including raw materials, nature and resources, climate action and water). This is about 3.1% of Poland's total allocation[162]. From the European Fund for Strategic Investments (EFSI), Poland received EUR 203.9 million for direct environmental investments and EUR 30 million for indirect environmental investments (amounting to EUR 233.9 million) out of its total allocation (EUR 3.3 billion) [163]. Poland received EUR 41.8 million from the EIB for direct environmental investments (specifically, for water and sewerage, and waste) out of the total EIB loans for Poland (EUR 33.1 billion)[164]. The country ranks 5th in size in total EIB lending.

In 2020, the EIB provided EUR 24.2 billion in funding across Europe to fight climate change, 37% of its total financing. It also provided EUR 1.8 billion (3% of its financing) for broader environment lending[165] [166].

EU environmental funding 2021-2027

The 2020 European Green Deal investment plan calls for EUR 1 trillion in green investments (public and private) by 2030. The 2021-2027 MFF and the NextGenerationEU spending programme will mobilise EUR 2.018 trillion (in current prices) to support the recovery from COVID-19 and the EU's long-term priorities, including environmental protection[167]. Following the EU Green Deal's[168] pledge to 'do no harm' and the Interinstitutional Agreement on the 2021-2027 MFF[169], 30% of the EU budget in 2021-2027 will support climate efforts, while biodiversity will receive 7.5% of the EU budget as of 2024 and 10% as of 2026. Therefore, increased programming of financial resources for biodiversity is required 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)[170]. It also strengthens non-financial reporting requirements and facilitates the issuance of green bond (by the EU green bond standard)[171]. Reinforced by the renewed sustainable finance strategy (2020)[172], sustainable finance will increase investment flows to climate and environment. The new strategy on adaptation to climate change[173] can help to close the insurance-protection gap, which currently leaves many risks from climate-related events uninsured[174]. The EIB will align 50% of its lending with climate and environmental objectives by 2025[175] with a EUR 250 billion contribution to the Green Deal investment plan by 2027.

Table 3 provides an overview of the EU funds earmarked specifically for Poland for 2021-2027. These funds are also supplemented by other EU funding programmes available to all Member States.

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

Instrument	Country funding allocation (million EUR)
Cohesion policy	**Total: 72 180.4** [176]
ERDF	47 416.7
CF	9 283.1 [177]
ESF+	14 913.0
ETC (ERDF)	567.6 [178]
Just Transition Fund	**3 847.4** [179]

[160] European Commission, LIFE Programme.
[161] Source: CINEA.
[162] Source: EASME, accessed: 15-12-2021.
[163]:Approved and signed EFSI financing - EIB, 2015-2020.
[164] EIB loans in EU countries in 2014-2020: EIB Open Data Portall
[165] 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.
[166] EIB 2021 Activity Report
[167] European Commission, 2021-2027 long-term EU budget & NextGenerationEU.
[168] COM/2019/640 final
[169] Interinstitutional Agreement, OJ L 433I
[170] EU taxonomy for sustainable activities
[171] EU Green Bond Standard - 2021/0191 (COD).
[172] COM(2021) 390 final – European Commission, Strategy for Financing the Transition to a Sustainable Economy.
[173] COM(2021) 82 final
[174] The strategy would support improved insurance gap coverage, including through the natural catastrophe markets as reflected with the Association for European Insurance and Occupational Pension Authorities (EIOPA) dashboard on insurance protection gap for natural catastrophes. See: The pilot dashboard on insurance protection gap for natural catastrophes | Eiopa (europa.eu).
[175] EIB Climate Bank roadmap 2021-2025, November 2020.
[176] European Commission, 2021-2027 Cohesion policy EU budget allocations.
[177] The transfer to the Connecting Europe Facility (Transport) is not included.
[178] Interreg initial allocations per MS including ETC transnational and ETC cross-border co-operation.
[179] European Commission, 2021-2027 Cohesion policy EU budget allocations.

EAFRD/rural development under CAP Strategic Plans 2023-2027[180]	**6 600.0** [181]
European Maritime, Fisheries and Aquaculture Fund (EMFAF)	**512.4** [182]
Recovery and Resilience Facility (RRF) 2021 – 2026[183]	**23 858 (grants)** **12 112 (loans)** [184]

In Poland, programming for most of the EU funds (cohesion policy funds, EAFRD and EMFAF) is ongoing.

Poland's RRP has been submitted, but has not yet been approved.

According to preliminary data, Poland's RRP responds to the urgent need to support a strong recovery and make the country ready for the future. The reforms and investments in the plan will help Poland become more sustainable, resilient, and better prepared for the challenges and opportunities of the green and digital transitions. To this end, the plan comprises five components with the overarching objectives of:

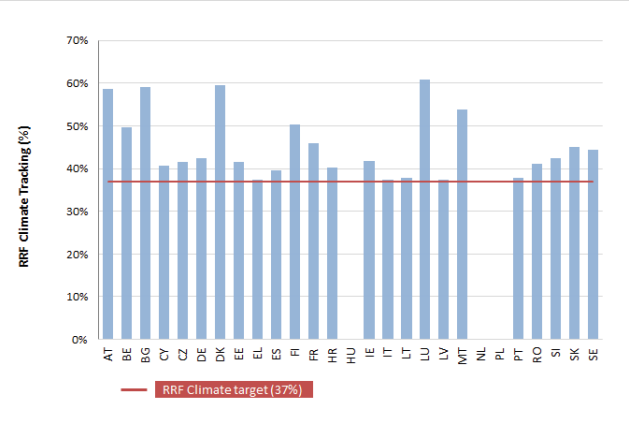
(i) increasing economic development and productivity;
(ii) supporting the digital and green transitions;
(iii) and improving the quality of life.

Poland requested EUR 23.86 billion in grants. An estimated 42.7% of the plan will support climate-related objectives (see Figure 41), which exceeds the RRF's 37% climate target. In terms of the green transition, the plan reflects its climate pledge by supporting major investments directed towards:

(i) developing offshore wind energy in the Baltic Sea;
(ii) the renovation of buildings, combined with removing coal-fired heaters;
(iii) developing hydrogen technologies and clean urban projects;
(iv) sustainable water management in rural areas;
(v) sustainable public transport.

Figure 41: Climate expenditure in RRP , 2021-2026[185]

(Without HU, NL, PL data)



Under NextGenerationEU, the Commission will issue up to EUR 250 billion of EU green bonds (one third of the NGEU amount) until 2026. The bonds will comply with the general spirit of the DNSH principle, but will not be subject to the currently developed Delegated Acts related to the EU Taxonomy and will not fully align with the proposed EU Green Bond Standard.

In addition to EU funds earmarked specifically for Poland in the 2021-2027, there are also funding programmes that can been accessed at the EU level and which are open to all Member States. These include the LIFE programme[186] (EUR 5.4 billion), Horizon Europe (EUR 95.5 billion)[187], the Connecting Europe Facility[188] (EUR 33.7 billion)[189] or the funds to be mobilised via the InvestEU[190] programme. These other sources of funding will also support the green transition, including research and innovation activities for environmental protection (Horizon Europe)[191], clean transport and energy (the

[180] European Commission, CAP strategic plans.
[181] Regulation (EU) 2021/2115, Annex XI.
[182] Regulation (EU) 2021/1139, Annex V.
[183] The actual reforms and investments under the RRF have to be implemented until 31 December 2026.
[184] Draft NRRP.

[185] European Commission. The contributions to climate objectives have been calculated using Annex VI of the RRF Regulation (EU) 2021/241.
[186] European Commission, LIFE Programme.
[187] European Commission, Multiannual financial framework 2021-2027 (in commitments) - Current prices.
[188] The CEF (Transport) includes also EUR 11.3 billion transferred from the Cohesion Fund. 30% of the transferred amount will be made available, on a competitive basis, to all Member States eligible for the Cohesion Fund. The remaining 70% will respect the national envelopes until 31 December 2023. Any unspent amount, by that date, under national envelopes will support all Cohesion Fund Member States.
[189] Regulation (EU) 2021/1153
[190] The InvestEU Fund is expected to mobilise over EUR 372 billion of investment through an EU budget guarantee of EUR 26.2 billion to back investment by financial partners such as the European Investment Bank (EIB) Group and others.
[191] European Commission, Horizon Europe.

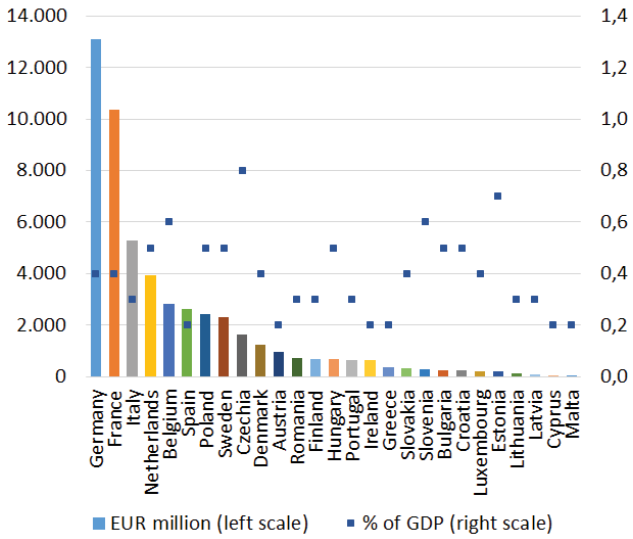
Connecting Europe Facility)[192] and sustainable infrastructure (InvestEU)[193].

National expenditure on environmental protection

Total national expenditure on environmental protection (including all relevant current and capital expenditure)[194] in the EU-27 was EUR 272.6 billion in 2020, representing 2% of EU-27 GDP. This percentage has remained relatively stable over time. Although the largest absolute amounts of expenditure are concentrated in a few countries, most countries spend between 1-2%, including Poland spending 1.9% on environmental expenditure.

Of this spending, the EU-27's capital expenditure on environmental protection (i.e. investment) amounted to EUR 56.3 billion in 2018, falling to EUR 54.5 billion in 2020, representing around 0.4% of EU-27 GDP. Most Member States invested 0.2-0.5% of their GDP in environmental protection; Poland dedicated 0.5%. During 2014-2020, this totalled around EUR 376 billion of environmental investment in the EU-27, and EUR 17.6 million for Poland.

Figure 42: Environmental protection investments in the EU-27 (EUR million and % of GDP), 2018[195]



By institutional sector, around 46% of Poland's environmental protection investments (capital expenditure) came from general government, a further 21% came from specialist producers of environmental protection services (e.g. waste and water companies), and 33% from the traditional industry (or business) sector that normally pursues environmental activities as ancillary to their main activities. At EU level, 37% comes from governments, 33% from specialist producers and 30% from industry (business).

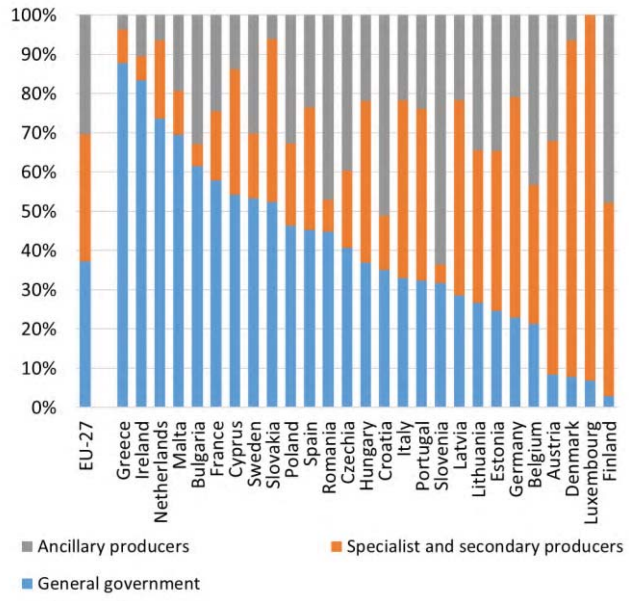
[192] European Commission, Connecting Europe Facility.

[193] European Union, InvestEU.

[194] At the 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, but 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.

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

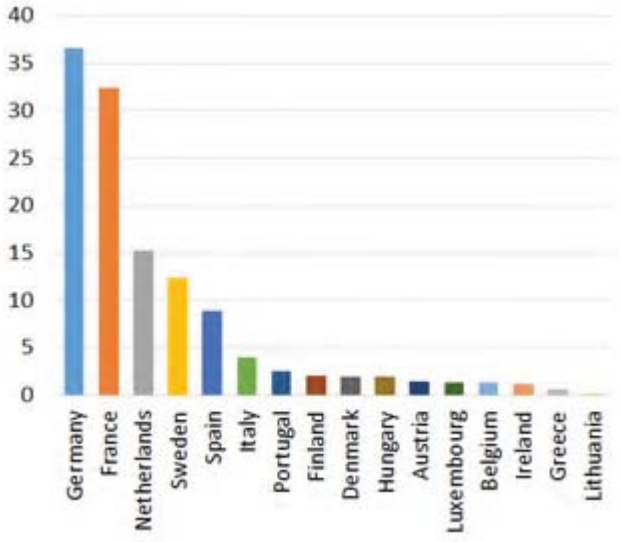
Figure 43: EU-27 Member States' environmental protection investments (Capex) by institutional sectors (Total economy = 100%), 2018[196]



A partial breakdown of investment by environmental topic is available, at the level of institutional sectors only (rather than at economy level), due to different reporting patterns across the sectors. At Poland's general government level, 67% of environmental protection investments went on wastewater and 11% on air protection in 2018. When looking at the country's specialist producers, 81% of the relevant investments were directed to wastewater and 18% to waste management. For businesses not involved in the specialist production of environmental-protection services, the main focus was on investing in anti-pollution measures (70%), while wastewater received 14% and waste management received 6% of environmental investments.

The annual global green bond issuance[197] in 2020 amounted to USD 279.8 billion. Of this, the total annual issuance of European green bonds (including some non-EU countries) in 2020 was USD 156 billion (EUR 137 billion [198]). This has grown from USD 117 billion (EUR 105 billion) in 2019. Looking only at EU-27 Member States, green bond issuance in 2020 was EUR 124 billion. Poland did not issue green bonds. In 2014-2020, 83% of the green bonds issued by European countries served objectives in energy, buildings or transport, while 8% supported water and waste, and a further 6% supported sustainable land use, with links to ecosystem conservation & restoration. This is based on the climate-bonds taxonomy being broadly similar to the EU taxonomy[199].

Figure 44: Annual EU green bond issuance in 2020 (EUR billion)[200]



Green budget tools

Green taxation & environmental tax reform

Poland's revenue from environmentally relevant taxes (2.55% of GDP) is slightly higher than the EU average in 2020 (2.24% of GDP), as shown in Figure 45. This is due to a relatively high proportion of energy taxes, at 2.24% of GDP, against an EU average of 1.74%. Transport taxes represented only 0.18% of GDP (EU average of 0.42%). However, taxes on pollution and resource represented 0.13%, which is above the EU average of 0.08%. In the same year, the environmental tax accounted for 7.12% of total revenues from taxes and social security contributions (substantially above the EU average of 5.57%)[201].

[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 "use of proceeds" 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.

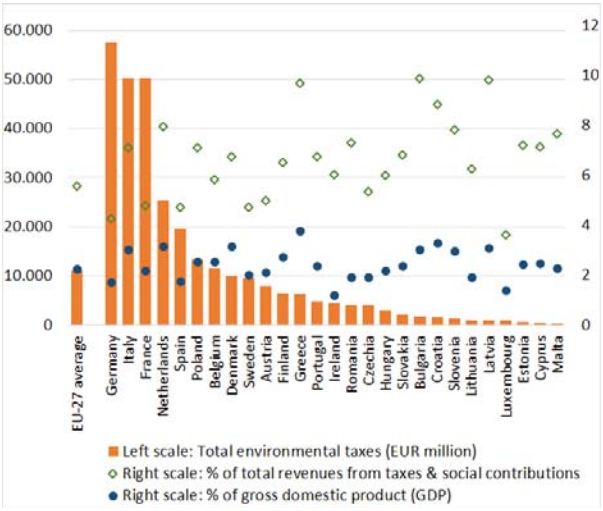
[198] At Eurostat's annual average EUR/USD exchange rates.

[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] European Commission, Ensuring that polluters pay – Poland

Figure 45: Environmental taxes in the EU-27, 2020[202]



The 2019 European Green Deal underlines that well-designed tax reforms can boost economic growth and resilience, foster a fairer society and promote a just transition. Tax reforms can contribute to this by sending the right price signals and incentives to economic actors. The Green Deal creates the context for broad-based tax reforms, the removal of fossil-fuel subsidies, and a shift in the tax burden from labour to pollution. It achieves this while simultaneously taking account of social considerations[203].

The Green Deal promotes the 'polluter pays principle' (PPP)[204], which stipulates that polluters should bear the cost of measures to prevent, control and remedy pollution. The PPP is facilitated by the EU Commission's technical support instrument (TSI) project[205] on greening taxes.

According to a Commission study on green taxation and other economic instruments (2021), Poland applies 'polluter pays' economic instruments on water and waste, such as water consumption charges and pay-as-you-throw, respectively[206].

Environmentally-harmful subsidies

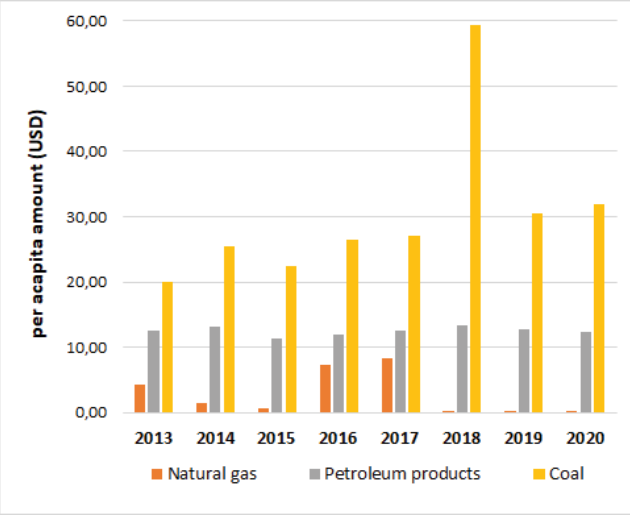
Addressing and removing environmentally-harmful subsidies (EHS) is a further step towards wider fiscal reforms[207].

Fossil-fuel subsidies are costly for public budgets and make it difficult to achieve the Green Deal objectives. In many cases, these subsidies also counteract incentives for investments. Annual fossil-fuel subsidies have been 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 them in this period. In the EU, subsidies on petroleum products, in sectors such as transport and agriculture continued to increase in 2015-2019. However, subsidies for coal and lignite decreased, due to the diminishing role of solid fuels in electricity generation. As a share of GDP, fossil fuel subsidies ranged from 1.2% in Hungary to less than 0.1% in Malta in 2019 (with an EU average of 0.4%). In 2019, the total fossil fuel subsidies in Poland amounted to EUR 1.7 billion, representing 0.3% of the GDP.

In 2020, the EU27's total fossil-fuel subsidies decreased to EUR 52 billion (due to falling consumption trends amid the COVID-19-related restrictions). Without Member State actions, these subsidies are likely to rebound as economic activity picks up from 2020[208].

[202] Eurostat, Environmental taxes accounts (env_eta).
[203] COM (2019/640 final), p. 17.
[204] 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'.
[205] European Commission, Greening taxes- applying polluter pays principle in practice, green budgeting TSI participation.
[206] European Commission, Green taxation and other economic instruments, 2021
[207] European Commission, Study on assessing the environmental fiscal reform potential for the EU 28, 2016.
[208] See table on EU FFS data in 2019 which is based on (for info) COM(2021) 950 and Annex

Figure 46: Trends in fossil fuel subsidies (natural gas, petroleum products and coal) in Poland (source OECD Inventory) [209]



% GDP	2013	2014	2015	2016	2017	2018	2019	2020
Natural gas	0,03	0,01	0,01	0,06	0,06	0,00	0,00	0,00
Petroleum	0,09	0,09	0,09	0,10	0,09	0,09	0,08	0,08
Coal	0,15	0,18	0,18	0,21	0,19	0,38	0,19	0,20

Poland allocated more than the EU average on fossil-fuel subsidies, and more than to renewable energy subsidies[210].

Current 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[211]. Green budgeting helps identify and track green expenditure and green revenues to increase transparency on how green budgetary policies are. This aims at improving policy coherence and supporting green policies (including climate end environmental objectives)[212].

The Commission has also drawn up climate-proofing and sustainability-proofing guidance as tools to assess project eligibility and a project's compliance with environmental legislation and criteria[213]. The Commission developed a green-budgeting reference framework[214] and launched a technical support instrument (TSI) project on green budgeting in 2021 to assist Member States develop national green budgeting frameworks to improve policy coherence and the green transition. Poland participates in the Commission's green-budgeting TSI, which started in 2021.

Overall financing compared to the needs

The EU's overall environmental financing for investments is estimated to have been 0.6-0.7% of GDP in 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 Member States. In 2021-2027 it is estimated that the EU's overall environmental investment needs will range between 0.9-1.5% of the projected GDP for the EU-27 (2021-2027), suggesting an overall environmental financing gap of 0.6-0.8% of GDP (EU level), unchanged financing levels assumed[215].

Figure 47: Total environmental financing baseline ('14-20) and estimated needs ('20-30) in the EU27 (% of GDP)[216]

[209] OECD Inventory

[210] European Court of Auditors, Energy taxation, carbon pricing and energy subsidies.

[211] 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 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)

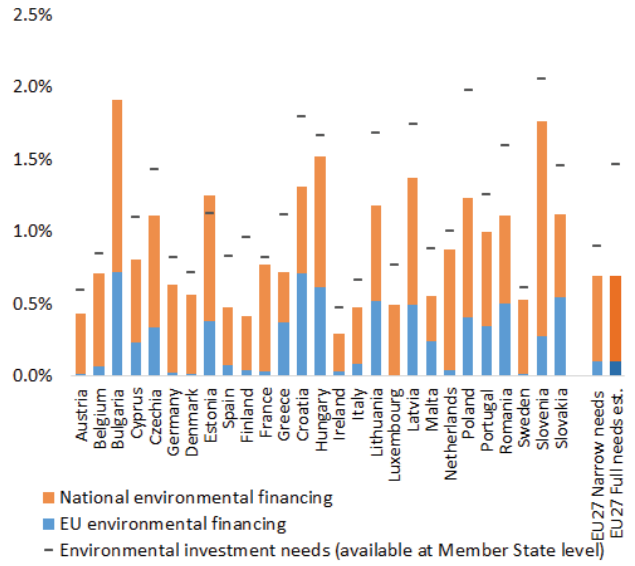
[212] OECD Paris Collaborative on Green Budgeting initiative, 2017

[213] European Commission, Technical guidance on sustainability proofing for the InvestEU Fund.

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

[215] Source: DG Environment data analysis. EU financing sources covered: ESI Funds (ERDF, CF, ESF, YEI, EAFRD, EMFF), Horizon 2020, LIFE, EFSI (EU amount), EIB loans. National financing: total national environmental protection capital expenditure (investments) - source: Eurostat EPEA dataset. Cut-off date for data: end 2021. N.B. The total financing may be higher, in particular through further indirect investments, requiring further analysis in the future.

[216] Eurostat, ESI Funds Open Data, 2021.



Poland's environmental financing for investments is estimated to have accounted for 1.24% of GDP in 2014-2020, with a third coming from EU sources. For 2021-2027, the country's overall environmental investment needs are estimated to be among the highest in the EU (1.98% of GDP, covering needs for which a country-level breakdown exist), which suggests a potentially significant environmental financing gap (at least 0.74% of Poland's GDP) if the 2014-2020 environmental financing levels and patterns simply continued in the new programming period. Nevertheless, the investment gap is likely higher if needs that are currently estimated at EU-level only (e.g. water protection, inreasing circularity rate, biodiversity strategy etc.) were to be taken into account .

In the 2019 EIR, Poland had priority actions in the field of environmental financing, calling for the necessary administrative capacities to be built and investements to be mobilised to close the most significant implementation gaps. Despite some progress, there is room for improvement in future years.

2022 priority actions

- Devise an environmental financing strategy to maximise opportunities for closing environmental implementation gaps, bringing together all relevant administrative levels.
- Ensure an increased level of financing for the environment (both from EU and private sources) to cover the investment needs across the environmental objectives and to prevent likely financing gaps from leading to investment gaps.

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) and access to justice in environmental eatters.
It is of crucial importance to public authorities, the public, and businesses that environmental information is shared efficiently and effectively[217]. 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[218]. It includes the right to bring legal challenges ('legal standing')[219].

Environmental information

This section focuses on the implementation of the INSPIRE Directive. The Directive aims to establish a European spatial data infrastructure for:

(i) sharing environmental spatial information between public authorities across Europe;
(ii) assisting in policy-making across boundaries;
(iii) and facilitating public access to this information.

Geographic information is needed for good governance at all levels and should be readily and transparently available.

Poland's implementation of the INSPIRE Directive could be better. Its performance has been reviewed on the basis of the 2021 country sheet[220]. There has been good progress on data identification and documentation, and implementation levels are good. However, more work is needed to:

(i) make the data more widely accessible;
(ii) prioritise environmental datasets in implementation, especially those identified as high-value spatial datasets for implementing environmental legislation[221].

Table 4: Country dashboard on the implementation of the INSPIRE Directive, 2016-2020[222]

	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	■	■	Implementation of this provision has started and made some or substantial progress but is still not close to be completed. Percentage: 31-89%
INSPIRE performance indicators			
i. Conformity of metadata	■	■	Implementation of this provision is falling significantly behind. Serious efforts are necessary to close implementation gap. Percentage: <31%
ii. Conformity of spatial data sets [223]	■	■	
iii. Accessibility of spatial data sets through view and download services	■	■	
iv. Conformity of network services	■	■	

Public participation

Polish provisions transposing the Environmental Impact Assessment (EIA) and Strategic Environmental

[217] 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.
[218] These guarantees are explained in the Commission Notice on access to justice in environmental matters, OJ L 275, 18.8.2017 and a related Citizen's Guide.
[219] This EIR report 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.
[220] INSPIRE in your country - PL
[221] European Commission, List of high value spatial data sets.
[222] INSPIRE knowledge base, 2021.
[223] The deadlines for implementing 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.

Assessment (SEA) Directives require the general public to be informed, including via electronic tools, about the initiation of the public participation procedure within the EIA or SEA. They also need to inform the public about the practical arrangements for participating (when and how to get access to the documentation available; when and how to submit comments etc.). After a decision that has been preceded by an EIA is made, it must be published, including online. No statistics on the level of public participation are available. The situation in this regard has not changed since the 2019 EIR.

The 2019 EIR recommended that Poland facilitates public participation in implementing EU environmental legislation. Since 2019, Poland has only made limited progress on this issue.

Access to justice

NGOs do not have to prove an interest when they bring environmental court cases or in cases which have significant effects on the environment. However, NGOs must meet some conditions in connection with their legal status and operation. In Poland, plans, programmes and other strategic documents, including those on the environment, are adopted by:

- self-governmental authorities; there are three levels of self-governmental authorities: community (*gmina*), district or poviat (*powiat*) and region (*województwo*) or
- governmental authorities: either at the central level (by ministers or other central agencies) or at the regional level.

Four specific Acts (on self-governmental authorities and on governmental authorities) grant access to justice to people who have a legal interest affected by the case, and who can prove that their legal interest or right has been infringed (the mere threat or possibility of infringement is insufficient).

This means that the group of people entitled to challenge a plan or programme is very narrow – narrower than for individual decisions, where it is sufficient to demonstrate the mere existence of a legal interest in the case and not its violation.

Plans or programmes adopted in the form of a Regulation (*rozporządzenie*) by the Council of Ministers or a Minister are not subject to access to justice provisions. There is no direct access to the court to challenge a normative instrument.

In response to an infringement procedure initiated against Poland for non-conformity in its transposition of access to justice provisions under the EIA Directive, Poland amended its EIA Act on 30 March 2021 rectifying the identified breach.

The Polish EIA law entered into force on 13 May 2021. The key improvements of the new law are as follows:

- NGOs will be able to request the suspension of execution of the environmental decision already at the stage of administrative appeal;
- NGOs will be able to ask for interim measures for the environmental decision and development consent at the stage of judicial review;
- NGOs will be able to challenge the development consents in cases where they have not had such rights until now (e.g. water permits, mining concessions, construction permits where a second EIA procedure has not been carried out);
- The limitation of the effects of the administrative and judicial review in special acts was corrected (i.e. there is no limitation if the review concludes that the development consent was non-compliant with the EIA decision).

The new EIA law applies to procedures launched as from the day of entry into force of the law, i.e. 13 May 2021. The law includes transitional provisions, according to which the new law would also apply to procedures that were initiated before 13 May 2021, but were still pending on this date.

There is some information on access to justice, usually in the official language of the country only, maintained by the government, and it needs to be searched for. No official webpages concerning environmental access to justice have been identified.

In 2019, there was a priority action addressed to Poland on access to justice, namely to provide broader standing to the public. Some progress on this has been made.

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 legislation.
- Measure the level and quality of public participation in EIA and SEA procedures to verify how effectively this tool is used in practice.
- Identify the levels of public participation in Poland and whether and how feedback provided during public consultations is considered in decision making on plans and projects.
- Further improve access to courts by the

concerned public when it comes to challenging decisions, acts, or omissions in particular under the areas related to water, nature and air quality.
- Better inform the public about their access to justice rights, in particular by referring to judicial and administrative portals to the Commission eJustice fact sheets on access to justice in environmental matters[224].

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 remediated, i.e. enforcement[228].
Citizen science and complaints enable authorities to better focus their efforts. Environmental liability[229] ensures that the polluter pays to remedy any damage.

Compliance promotion and monitoring

There are tools to distribute information relating to the Nitrates Directive to farmers, which improves the situation compared to the 2019 EIR. These include the following:

- a programme of measures was adopted to reduce nitrate pollution from agricultural sources[230];
- the Ministry of Agriculture prepared guidance on good agricultural practices to prevent nitrate pollution[231];
- a government agricultural advisory centre is active in providing farmers with information on the requirements of the Nitrates Directive[232]; it provides information on its website[233] and distributes leaflets[234] listing the Directive's requirements for farmers.

Regarding the Nature Directives, no specific new tools to actively promote compliance were identified. The General Director for Environmental Protection's website provides general information about Natura 2000[235] with publications relating to Natura 2000 in various sectors (such as water management, aquaculture, forestry); all publications were dated 2009. General information on location, responsible authorities and standard data about existing Natura 2000 sites is also available online, via the 'Central Register of Nature Protection Forms' (*Centralny Rejestr Form Ochrony Przyrody*)[236]. Information about the location of Natura 2000 sites can be also found on the INSPIRE geoportal[237].

Each on-site inspection carried out by the Inspectorate for Environmental Protection is documented by an inspection report. The individual inspection reports are not published but must be disclosed on request (according to provisions on access to environmental information, transposing Directive 2003/4/EC). Annual summary reports on the inspections carried out by the Inspectorate for Environmental Protection are published online[238]. These reports are quite extensive and detailed. Information about the inspections actually carried out within a given year and their results was not found. The situation in this regard has not changed since the 2019 EIR.

Complaint handling and citizen science

The Chief Inspectorate for Environmental Protection allows complaints to be submited online using a designated e-form on their website[239]. Some regional inspectorates refer to this option on their websites, as indicated in the 2019 EIR. Some of the Regional Inspectorates for Environmental Protection also provide other information on their websites, e.g. on how to

[224] Access to justice in environmental matters
[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 coordination between authorities to tackle environmental crime.
[229] The Environmental Liability Directive, 2004/35, creates the framework.
[230] Regulation of 12 February 2020 on the adoption of the 'programme of measures to reduce pollution of waters by nitrates from agricultural sources and to prevent further pollution' (Journal of Law 2020 item 243).
[231] Zbiór zaleceń dobrej praktyki rolniczej
[232] Produkcja rolna - program azotanowy - informacje
[233] Produkcja rolna - program azotanowy - informacje
[234] Program azotanowy - ulotka
[235] Natura 2000 a aktywność człowieka
[236] CRFOP - Centralny rejestr form ochrony przyrody
[237] https://mapy.geoportal.gov.pl/imap/Imgp_2.html?gpmap=gp3
[238] Sprawozdania z realizacji zadań IOŚ and Raporty - publikacje - opracowania
[239] Zgłoś interwencję - formularz

submit a complaint, but their level of detail varies from region to region[240].

Annual statistical information on complaints and interventions investigated by the Inspectorate for Environmental Protection (such as number of complaints received, the outcomes and the follow-up procedure) is available in the document provided by the Chief Inspectorate for Environmental Protection: „Information on tasks performed by the Inspectorate for Environmental Protection"[241]. No specific instruments or projects to encourage NGOs or individuals to submit citizen science information to authorities have been identified. This has not changed since the 2019 EIR.

The only situation where scientific evidence is accepted or required from individuals is when:

- they ask the competent authorities to take action under the Environmental Liability Directive (ELD);
- they take part in public participation procedures (such as those within an EIA);
- or – in case of NGOs – when they submit a request to the competent authority to carry out any action regarding an environmental infringement[242].

Enforcement

Statistics on environmental crime in Poland are available for the number of proceedings initiated, number of crimes stated and number of crimes for which the perpetrator was found, via the website of the Polish police force[243]. No information could be found in national sources about the results of the related criminal proceedings (such as information on convictions or sanctions imposed) and it appears that this information is not published. Information is available about the number of convictions for particular environmental crimes in Poland in 2010-2017[244].

Environmental Liability Directive (ELD)

Poland has not introduced a mandatory financial security system for ELD liabilities and there is room for improvement of the financial security system for liabilities and ELD guidance.

While Poland has developed a good practice as the Polish legislation transposing the ELD provides for the establishment of a Register of ELD incidents[245] managed by the General Director for Environmental Protection and available online[246]. However, it is only accessible to environmental authorities[247]. The general public has no access to the Register but may apply for information it contains on the basis of general provisions on access to environmental information[248].

Operators who caused environmental damage or the threat of such damage are obliged to report that to the competent authorities[249]. Moreover, any person (and not only those directly affected), including NGOs, may notify the competent authority about environmental damage or threat of damage and request action[250]. The notification may be submitted in a paper form or electronically via e-PUAP[251].

2022 priority actions

- Provide and actively distribute information is available to help farmers meet their obligations as regards Natura 2000.
- Provide more online information on inspection plans, the number of inspection actually carried out, and reports on the inspections.
- Poland can improve its use of citizen science, trying to encourage the public and NGOs to work together in collecting and using environmental data.

[240] See, for example, Zgłaszanie poważnych awarii zagrażających środowisku.
[241] Raporty - publikacje - opracowania
[242] On the basis of Art. 31(1) of the Administrative Procedure Code.
[243] Statystyka policyjna - Zniszczenia w świecie roślinnym i zwierzęcym
[244] Commission staff working document Evaluation of the Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law (Environmental Crime Directive), Part 1/2, 28 October 2020, Annex 11.
[245] Article 26a of the Act on environmental damage.
[246] GDOŚ - rejestry
[247] See instructions on how to apply on the General Directorate's website: https://www.gdos.gov.pl/rejestry-gdos
[248] transposing Directive 2003/4.
[249] The Regional Director for Environmental Protection and the Regional Inspector for Environmental Protection ex Art. 11.1 the Act on environmental damage.
[250] Art. 24 of the Act on environmental damage which transposes Art. 12 of ELD.
[251] A general platform applicable for all issues, not only environmental ones, enabling the public to contact public authorities.

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

There has been progress on the implementation of the environmental assessments. A recent package of legislation aimed at speeding up the licencing of 'projects of national interest' raised some concerns but no serious problems have been identified since it has been implemented. Nevertheless, NGOs have recently drawn the Commission's attention to 'negative screening' decisions that apparently cannot be challenged, which is not compliant with the Directive.

Polish public authorities are increasingly adopting and using electronic services to interact with public or regulated entities online. However, Poland only ranks 24th of 27 EU Member States in the 2021 edition of the Digital Economy and Society Index (DESI), scoring 41.0 as compared to the EU-27 average of 50.7. During 2020, Poland made progress on many indicators, but given the equally positive developments in other countries this has not translated into a change in its overall position. In digital public services, Poland ranks 22nd with 49% of internet users relying on e-government services, compared to 64% in the EU[252].

An example of a digital service in the field of environment is the 'Clean Air' (*Czyste Powietrze*) programme of subsidies to replace old stoves and insulation in single-family houses. Another example is the 'My Electricity' *(Mój Prąd*) programme dedicated to supporting the development of prosumer energy, specifically supporting the segment of photovoltaic (PV) micro-installations. The public can apply for both programmes online, logging in using the 'trusted profile' (*profil zaufany*).

Coordination and integration

As mentioned in the 2017 EIR, the transposition of the revised EIA Directive[253] provides an opportunity to streamline the regulatory framework on environmental assessments. Poland enacted the content of the Directive by the deadline (May 2017).

The Commission encourages the streamlining of the environmental assessments to reduce duplication and avoid overlaps in environmental assessments applicable to projects. Streamlining helps reduce unnecessary administrative burden and accelerates decision making, provided it is done without compromising the quality of the environmental assessment procedure[254]. Poland began streamlining environmental assessments under the EIA and Habitats Directives before the revision of the EIA Directive. Coordinated procedures have been set up for the EIA and Industrial Emission Directives.

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

The Commission supports environmental implementation and the green transition not only through the EU financing programs, but also through granting technical assistance such as the Technical Support Instrument (TSI).

The Commission's TSI supported many environment-related projects in Poland during the reporting period. Under the TSI 2019, a request was approved for a project related to the digitalisation of construction planning. Under the TSI 2020, four requests were selected to support: (i) renewable energy solutions in rural areas; (ii) capacity building for sustainable development goals and sustainable development; (iii) preparing the territorial just transition plans; and (iv) the state water holding 'Polish waters'. Then in 2021, TSI supported a project on sustainable development framework for strategy and business operations of Poland's Development Bank. Finally, in 2022, three requests were approved: (i) on enhancing cooperation and quality of public administration for regional and local authorities; (ii) on developing clean, smart and fair urban mobility; and (iii) a request related to supervisory capacity building in sustainable finance.

TAIEX EIR peer to peer Projects

The Commission launched the TAIEX EIR peer-to-peer tool in 2017[255] to facilitate peer-to-peer learning

[252] European Commission, Digital Economy and Society Index (DESI) 2021 DESI country profile - Poland

[253] Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

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

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

between environmental authorities. During the reporting period, Poland has participated in several multi-country workshop on life cycle approach and circularity in policy and procurement planning (2019), on green criteria in public procurement (2019), on ammonia-reducing technology and measures (2021) and on zero pollution (2021). Poland also benefited from a workshop on combating trans-boundary waste crime in the Polish-German border region (2019).