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**COMMISSION STAFF WORKING DOCUMENT**

**The EU Environmental Implementation Review 2022  
Country Report - GREECE**

*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**

**The EU 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 Greece for the implementation of EU environmental policy and law were:

- to address waste management issues, in particular the closure of illegal landfills and the treatment of hazardous waste;
- to improve nature protection by putting in place an efficient national protection system, raising awareness and creating the right incentives for sustainable investments;
- to complete the implementation of the Urban Waste Water Treatment Directive;
  - to simplify its environmental administrative structures and procedures, which can cause significant delays and bottlenecks, while at the same time strengthening its administrative capacity, that sometimes turn out to be the main obstacles to implementing environmental legislation.

Greece still faces major structural problems with **waste management** and only limited progress **has been recorded**. Waste generation has been increasing somewhat, while recycling rates have improved only marginally. While the national waste management plan has been updated, the regional plans, which are necessary for implementing waste management policy on the ground, have been significantly delayed.

The number of illegal landfills in operation or in need of rehabilitation has continued to decrease over the years. However, the remaining illegal landfills will be very difficult to close unless new facilities are built, while keeping in mind that an overcapacity of treatment facilities of residual waste will not help Greece's transition towards a circular economy. Greece has to step up its efforts to put in place an adequate network of facilities that would effectively manage all the hazardous waste produced in the country. In addition, treatment facilities and the separate collection of waste streams in the country are insufficient and most organic waste is landfilled without prior stabilisation. The Commission therefore initiated in November 2021 a new infringement procedure against Greece for failing to comply with the Landfill Directive and the Waste Framework Directive.

Some progress has been made on the legal and institutional steps necessary to increase waste recycling, notably with the introduction of **a new landfill tax**<sup>1</sup> in

national legislation, outlined in the waste management reform foreseen in Greece's recovery and resilience plan (RRP). The tax, which is due to be introduced in 2022, is a significant step in the right direction. However, the overall administrative capacity of the sector has weakened over the years and according to the Commission's 2018 'early warning report', Greece is at risk of not meeting the 2020 municipal waste recycling target of 50 %.

On **nature protection**, Greece's Natura 2000 network is now considered to be complete. Nevertheless, site-specific conservation objectives and measures have not been put in place due to insufficient data. Moreover, management plans are lacking and the percentage of habitats in good condition has decreased over the years. A major challenge to protect and manage Natura 2000 sites effectively is to set up a national system for the comprehensive management, administration and functioning of protected areas. The recent law that aims to put in place management bodies for all Natura 2000 sites should provide significant benefits in this respect.

On **urban wastewater treatment**, there have been some positive steps, such as the systematic assessment and strategic re-organisation of the country's investment needs. However, there are significant delays in the projects that need to be carried out, particularly in the agglomerations (i.e. population centres or places of economic activity) in Eastern Attica, for which Greece has been paying fines for several years.

On the **simplification of administrative structures and procedures** for environmental implementation, a positive step for Greece is the streamlining of environmental assessments under the Environmental Impact Assessment Directive, the Habitats Directive and the Industrial Emissions Directive. The weak administrative capacity of the environmental authorities in the country is considered a serious obstacle.

EU financing continues to provide substantial support to bridge the environmental implementation gap. Greece is due to receive over EUR 30 billion from its RRP (2021-2026) in grants and loans and EUR 20 billion from the cohesion policy (2021-2027). The reforms set out in the Greek RRP to set up two new regulatory authorities in the waste and water sectors, are expected to have a positive impact in the respective areas. Greece's environmental investments amounted to 0.72% of GDP in 2014-2020, relying on both EU- and national financing. In 2021-2027, the country's environmental investment

<sup>1</sup> The landfill tax has been introduced with law 4819/2021 (article 38), the new national legislative framework for waste management and

recycling, transposing Directives (EU) 2018/851 and 2018/852 into national legislation.

needs are estimated to reach over 1.12% of GDP, suggesting an environmental financing gap of at least 0.4% of GDP. The absorption of EU funds for environmental measures remains a cause for concern, with particular problems in the areas of waste management and nature protection.

Greece has paid more than EUR 184 million in fines since 2014, as imposed by the Court of Justice of the EU for violations of EU waste and urban wastewater norms.

## Part I: Thematic areas

### 1. Circular economy and waste management

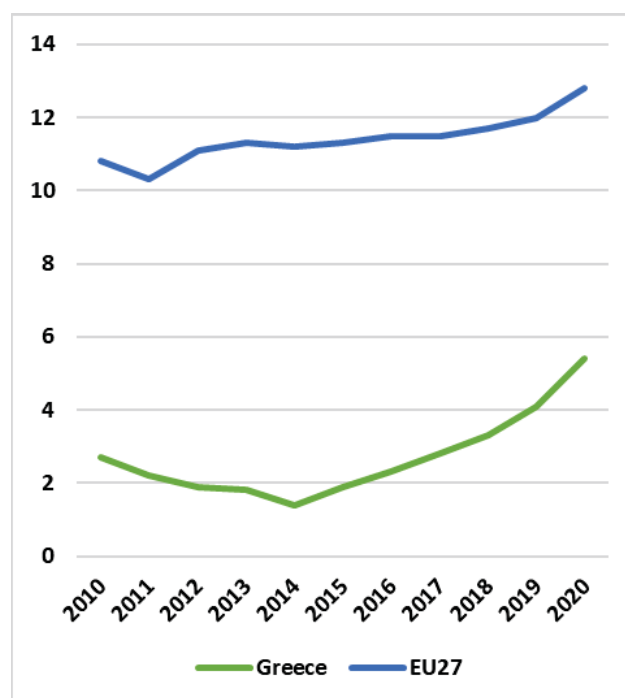
#### Measures towards a circular economy

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

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

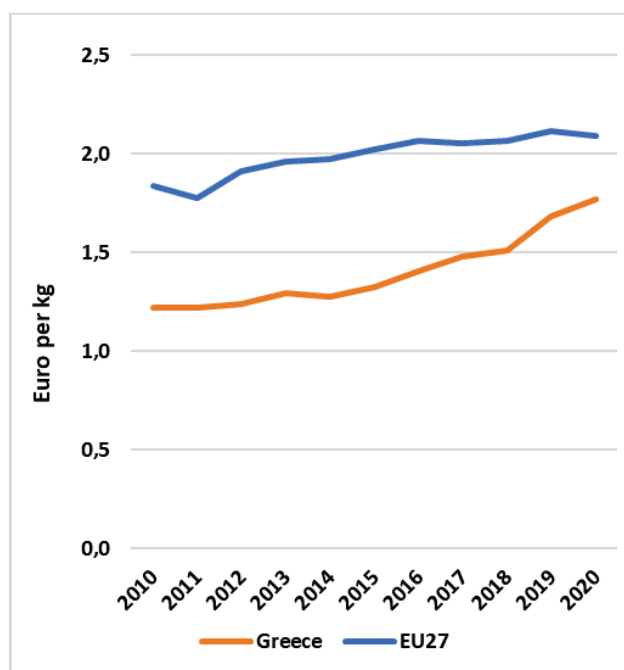
Greece's circular (secondary) use of material stood at 2.4% in 2016, and 5.4% in 2020 compared to an EU average of 12.8%. Despite an increase in the recent years, Greece remains far below the EU average for this indicator <https://www.ianos.gr/i-draki-de-mirazonte-0520108>.

Figure 1: Circular material use rate (%), 2010-2020<sup>2</sup>



Resource productivity expresses how efficiently the economy uses material resources to produce wealth. Improving resource productivity can help to minimise negative impacts on the environment and reduce dependency on volatile raw material markets. As shown in Figure 2, with EUR 1.77 generated per kg of material consumed in 2020, resource productivity in Greece is slightly below the EU average of EUR 2.09 per kg. However, with the steady increase in its resource productivity over the last decade, Greece follows an encouraging trend.

<sup>2</sup> Eurostat, [Circular Economy Monitoring Framework](#).

**Figure 2: Resource productivity 2010-2020<sup>3</sup>**

### Circular economy strategies

The Commission encourages Member States to adopt and implement national/regional circular economy strategies covering the whole life cycle of products, as they are one of the most effective ways for countries to progress towards a more circular economy. Since its launch in 2017, national, regional and local authorities have used the European Circular Economy Stakeholder Platform<sup>4</sup> to share their strategies and roadmaps.

In April 2018, the Government Council for Economic Policy (KYSOIP) endorsed the national action plan on circular economy, including short-term measures and long-term priorities. The following sectors were identified as priorities: construction & demolition; water; reuse preparation; repairs and maintenance; bio-economy sectors; textiles and chemicals. In light of the new EU circular economy action plan, in November 2021, Greece approved its own action plan in this area, with a corresponding roadmap approved by the Council of Ministers.

The national action plan is expected to include a series of actions to be implemented up to 2025. The planned actions will focus on: production, consumption, waste management and general governance and administrative issues; products and services that are resource intensive and where the potential for circularity is high (e.g. electronics and ICT); batteries

and vehicles; packaging; plastics; textiles; construction and buildings; food waste and water use. Although Greece does not have specific sectoral strategies for plastics, constructions and textiles, the action plan sets out initiatives addressing these sectors.

Greece's new National Waste Management Plan as well as its RRP outline several planned reforms, namely: revising the waste management law<sup>5</sup> to put in place sustainable landfilling and recycling; incentives for municipalities to achieve higher recycling rates; enforcing the separate collection of waste; extending the 'Producer's responsibility' scheme; upgrading the operation of recycling sorting facilities; and simplifying the legislation on "green points".

### Eco-innovation

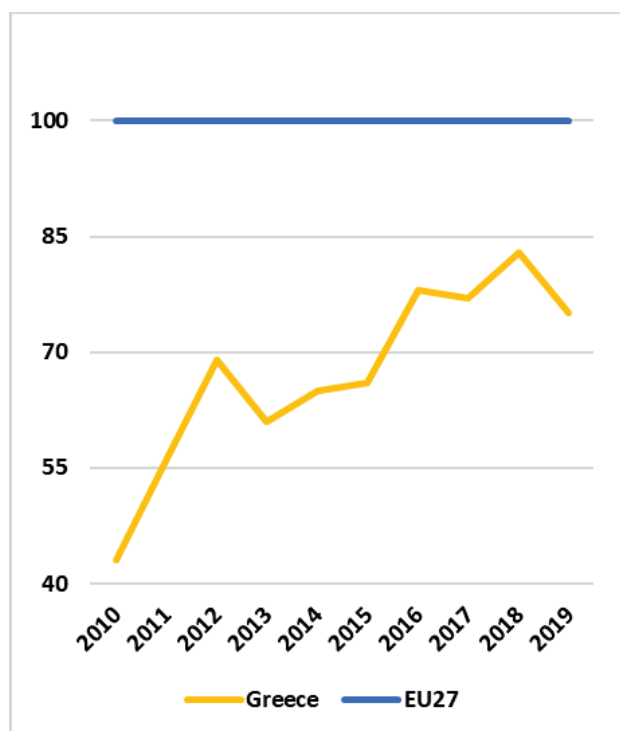
A successful transition to a circular economy requires social and technological innovation. This is because the full potential of the circular economy can only be reached when it is implemented across all value chains. Eco-innovation is an important enabling factor for the circular economy. New approaches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

Greece ranked 17th on the 2021 Eco-Innovation Scoreboard, with a score of 102, making it an 'average' eco-innovation leader. Greece performed below the EU average on all five components of the 2021 Eco-innovation Index (eco-innovation activities, eco-innovation outputs, socio-economic, eco-innovation input and resource efficiency outcomes).

<sup>3</sup> Eurostat, [Resource productivity](#).

<sup>4</sup> [Circular Economy Stakeholder Platform](#)

<sup>5</sup> Law 4819/2021 has been issued in July 2021, transposing Directives 2018/851 and 2018/852, where the legislative framework for waste management and recycling has been updated.

Figure 3: Eco-innovation performance, 2010-2019<sup>6</sup>

### Green public procurement

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

Greece adopted its first green public procurement (GPP) action plan in 2021. The action plan recommends that to all public authorities use EU GPP criteria for procuring goods, services and public works. It also sets mandatory and non-mandatory targets to use EU GPP criteria in the following categories: copying and graphic paper; computers and monitors; imaging equipment; lubricants (regenerated and biodegradable); road transport, road lighting and traffic signals; furniture; textiles; public space maintenance; waste water infrastructure; electrical and electronic equipment used in the healthcare sector; office building design, construction and management; and road design, construction and maintenance. Finally, setting up a monitoring system for green, sustainable and/or innovative public procurement is a key priority for 2022.

<sup>6</sup> European Commission - Directorate-General for Environment (DG ENV), Eco-innovation Observatory, [Eco-innovation index](#).

### EU Ecolabel and the Eco Management and Audit Scheme (EMAS)

The number of EU ecolabel products and EMAS-licensed<sup>7</sup> 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, Greece had 3 559 products out of 83 590, and 20 licences out of 2 057 registered in the EU ecolabel scheme, ranking its EMAS take-up on the low side<sup>8</sup>. Moreover, 35 organisations from Greece are currently registered in EMAS<sup>9</sup>. Since 2019, there have been 211 new product registrations but licence registrations have gone down by 12.

As Greece has adopted a circular economy action plan, this particular priority action from the 2019 EIR has been fulfilled. Given that Greece's circular material use rate is far below EU average, a new priority action on this is proposed.

### 2022 priority action

- Adopt measures to increase the circular material use rate.

### Waste management

Turning waste into a resource is supported by:

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

This section focuses on the management of municipal waste<sup>10</sup>, for which EU law sets mandatory recycling targets.

<sup>7</sup> EMAS is the European Commission's eco-management and audit scheme, which aims to encourage organisations to behave in a more environmentally sustainable way.

<sup>8</sup> European Commission, [Ecolabel Facts and Figures](#).

<sup>9</sup> As of May 2018. European Commission, [Eco-Management and Audit Scheme](#)

<sup>10</sup> 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



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

After a downward trend, municipal waste generation in Greece started to increase from 2013 onwards (the pattern reflects the post-recession period). Waste generation stood at 524 kg/year/inhabitant in 2019, relatively close to the EU average (502 kg/year/inhabitant), as Figure 4 shows. This indicates that Greece's economic growth is not yet decoupled from its generation of waste.

**Figure 4: Municipal waste by treatment in Greece, 2010-2019<sup>11</sup>**

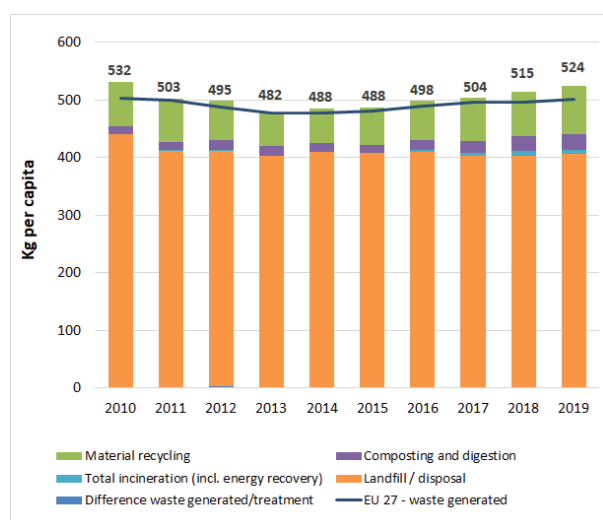


Figure 4 also shows municipal waste by treatment, in terms of kilos per capita. Little progress has been made since the 2019 EIR. Greece most of its municipal waste in landfills (78 %), with only 21 % being recycled (EU average 48 %). The landfill rate has decreased modestly and the recycling rate has slightly increased.

Moreover, based on the information available to the Commission, it appears that a significant number of irregular and substandard landfills continue to operate in Greece and present serious risks for human health and the environment. First of all, three illegal waste dumping sites are not yet closed and rehabilitated and 17 such sites are closed but not rehabilitated. Following

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).

<sup>11</sup> Eurostat, [Municipal waste by waste operation](#), april 2022 (2020 data not yet available for Greece).

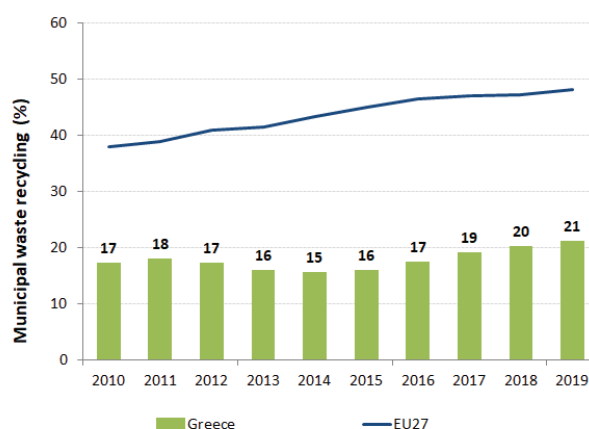
two rulings of the Court of Justice of the EU, Greece is paying fines (EUR 66.5 million so far) for these breaches. Greece has also been condemned by the CJEU for its inefficient management of hazardous waste and has paid EUR 49.6 million in fines so far.

In addition, studies and investigations launched by the European Commission have revealed that Greece lacks sufficient treatment facilities as well as separate collection for glass and biodegradable waste. It also appears that most organic waste is landfilled without prior stabilisation<sup>12</sup>. Therefore, in November 2021 the Commission initiated an infringement procedure against Greece for failing to comply with the Landfill Directive<sup>13</sup> and the Waste Framework Directive<sup>14 15</sup>.

Greece has made very slow progress over the past decade (and, even regressed between 2011 and 2016) on increasing its recycling rate and diverting municipal waste from landfilling. In 2019, the recycling rate for municipal waste stood at 21% (16% recycled and 5% composted), well below the EU average of 48%.

Figure 5 shows that Greece needs to step up investment in recycling to meet the EU 2020 and 2025 recycling targets.

**Figure 5: Recycling rate of municipal waste, 2010-2019<sup>16</sup>**



The Commission's Early Warning report<sup>17</sup> cited Greece among the countries at risk of missing the EU 2020 target of recycling 50 % of municipal waste. The report listed key priority measures that Greece should take to

<sup>12</sup> [INF/21/5342](#).

<sup>13</sup> [Directive 1999/31/EC](#).

<sup>14</sup> [Directive 2008/98/EC](#).

<sup>15</sup> [October infringements package: key decisions \(europa.eu\)](#)

<sup>16</sup> Eurostat, [Recycling rate of municipal waste](#), april 2022 (2020 data not yet available for Greece).

<sup>17</sup> 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](#).

close the implementation gap. The Commission is currently finalising its analysis of progress on the 2018 'early warning' report recommendations and on progress towards achieving the 2025 waste recycling targets, which will be presented in the form of a report at the end of 2022 with recommendations where appropriate.

### Implementation of the 2018 waste legislative package

Greece has notified its transposition of the 2018 waste package<sup>18</sup> to the Commission. A conformity assessment is now ongoing.

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

Greece has adopted and notified to the Commission its updated national waste management plan (ESDA), which is under assessment, but has not notified its updated regional waste management plans. Greece also adopted its new National Waste Prevention Programme in June 2021 for the period up to 2030.

### 2022 priority actions

Given the limited progress since the 2019 EIR, and in light of the upcoming Early Warning report for 2022, the priority actions are rolled over and a new one is added on the adoption of the waste management plans.

- Address the issues of closure and rehabilitation of illegal landfills and of the treatment of hazardous waste as matters of absolute priority.
- Properly enforce and increase landfill taxes to phase out landfilling of recyclable and recoverable waste. Channel those revenues towards measures that improve waste management in line with the waste hierarchy.
- Avoid building excessive infrastructure for the treatment of residual waste, e.g. mechanical biological treatment (MBT) facilities or incinerators.
- Improve and extend separate collection of waste, including for biowaste. Establish minimum service standards for separate collection (e.g. frequency of collections, types of containers, etc.) in municipalities to ensure high capture rates of

recyclable waste. Use the available economic instruments, e.g. pay-as-you-throw and mandatory recycling targets for municipalities with penalties for non-compliance (e.g. fines).

- Improve the efficiency of the extended producer responsibility systems, in line with the general minimum requirements on EPR.
- Ensure regional waste management plans in line with the revised Waste Framework Directive are in place.

<sup>18</sup> [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.

## 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 Birds and Habitats Directives, which are reinforced by the Nature Restoration Law, are key legal tools to deliver on the strategy's targets. They are the cornerstone of EU legislation aimed at conserving the EU's wildlife<sup>19</sup>

Greece adopted its first national biodiversity strategy and action plan in 2014. It aims to halt biodiversity loss and the degradation of ecosystem services by 2026<sup>20</sup>.

### Nature protection and restoration

Natura 2000<sup>21</sup>, the largest coordinated network of protected areas in the world, is the key instrument to achieve the objectives of the Birds and Habitats Directives. These objectives are: (i) to ensure the long-term protection, conservation and survival of Europe's most valuable and threatened species; and (ii) to maintain or restore the favourable conservation status of these species and habitats. Key milestones towards meeting the objectives of the Birds and Habitats Directives are: (i) the setting up of a coherent Natura 2000 network; (ii) the designation of sites of community

<sup>19</sup> These should be reinforced by the Nature Restoration Law, according to the new EU biodiversity strategy.

<sup>20</sup> [https://ypen.gov.gr/wp-content/uploads/legacy/Files/Perivallon/Diaxeirisi%20Fysikoy%20Perivallontos/Biopoikilotita/20200323\\_ethniki\\_strathgiki\\_biodiversity.pdf](https://ypen.gov.gr/wp-content/uploads/legacy/Files/Perivallon/Diaxeirisi%20Fysikoy%20Perivallontos/Biopoikilotita/20200323_ethniki_strathgiki_biodiversity.pdf)

<sup>21</sup> Natura 2000 comprises Sites of Community Importance (SCIs) designated under the Habitats Directive as well as Special Protection Areas (SPAs) classified under 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.

importance (SCIs) as SAC<sup>22</sup>, and (iii) the setting of site-specific conservation objectives and measures for all Natura 2000 sites.

### Setting up a coherent network of Natura 2000 sites

Greece hosts 89 habitat types<sup>23</sup> and 296 species<sup>24</sup> covered by the Habitats Directive. The country also hosts populations of 160 bird species listed in the Birds Directive's Annex I<sup>25</sup>.

Greece has designated 446 Natura 2000 sites, including 265 SCIs under the Habitats Directive and 207 Special Protection Areas (SPAs) under the Birds Directive.

By 2021, 27.3% of Greece's land area was covered by Natura 2000 (EU coverage 18.5%), with SPAs classified under the Birds Directive covering 21% (EU coverage 12.8%) and SCIs under the Habitats Directive covering 16.6%<sup>26</sup> (EU coverage 14.2%) of the Greek territory.

According to the latest assessment of the SCI part of the Natura 2000 network, Greece's Natura 2000 network is now considered to be complete.

Today the Natura 2000 network covers 19.6% of the total sea area of the country.

Considering both Natura 2000 and other nationally designated protected areas, Greece legally protects 35.20% of its terrestrial areas (EU 27 coverage 26%) and 4.62% of its marine areas (EU 27 coverage 12%).

### Figure 6: Marine & terrestrial protected area coverage, 2021<sup>27</sup>

<sup>22</sup> 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.

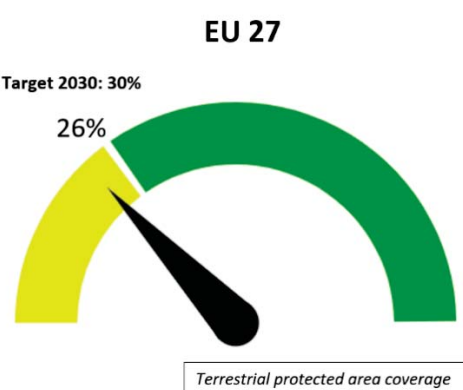
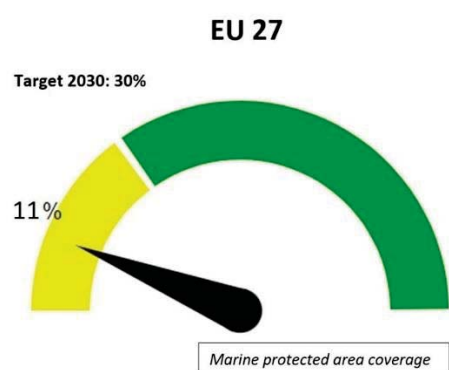
<sup>23</sup> [EEA, Article 17 dashboard, Annex I total, 2019.](#)

<sup>24</sup> [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.](#)

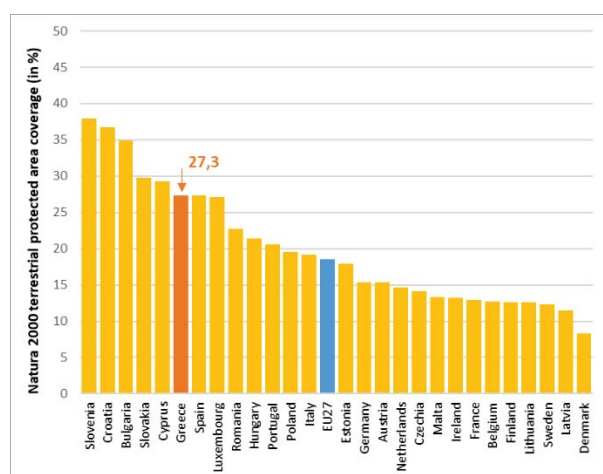
<sup>25</sup> [EEA, Article 12 dashboard, Annex I, 2020. This counting only takes into account birds taxa for which information was requested.](#)

<sup>26</sup> According to the Greek Priority Action Framework [PAF-EL\\_FINAL.pdf \(ypen.gov.gr\)](#) and the [barometer https://www.eea.europa.eu/data-and-maps/dashboards/natura-2000-barometer](https://www.eea.europa.eu/data-and-maps/dashboards/natura-2000-barometer)

<sup>27</sup> [EU Biodiversity Strategy Dashboard](#), indicators A1.1.1 and A1.2.1, February 2022.



**Figure 7: Natura 2000 terrestrial protected area coverage, 2021<sup>28</sup>**



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

The 6-year deadline set by the Habitats Directive to establish appropriate conservation objectives and measures has expired for 239 sites in Greece.

<sup>28</sup> European Environment Agency, [Natura 2000 Barometer](#), February 2022.

Moreover, site-specific conservation objectives and conservation measures have not been established due to insufficient primary data.

Furthermore, until 2020 Greece has defined management plans for only three SCIs, whereas for some areas presidential decrees or Joint Ministerial Decisions have been issued which define permitted and forbidden activities. For these reasons, the Commission had decided to bring the infringement procedure opened on this matter before the Court of Justice of the EU.

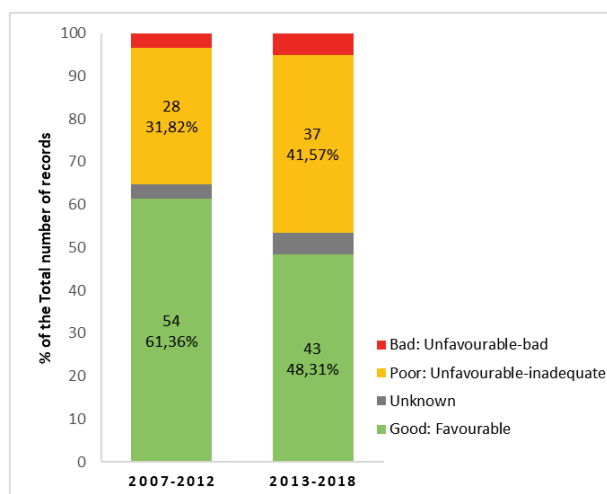
In April 2021, Greece adopted national conservation objectives for those habitats and species for which data were available. But it still has to set out the necessary site-specific conservation objectives and measures for the already designated sites.

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

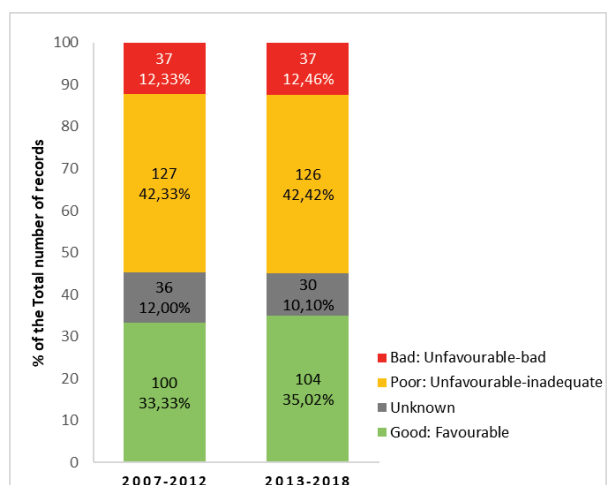
To measure the performance of Member States, Article 17 of the Habitats Directive and Article 12 of the Birds Directive require reporting on the progress made towards maintaining or restoring the favourable conservation status of species and habitats. According to the report submitted by Greece on the conservation status of habitats and species covered by Article 17 of the Habitats Directive for 2013-2018, 48.31% of habitats were in good conservation status in 2018, down from 61.36% in the previous reporting period (2007-2012). On protected species, 35.02% were in good conservation status in 2018, indicating a slight improvement compared to the 33.33% reported for 2007-2012. On birds, 77% of breeding species showed short-term increasing or stable population trends (for wintering species this figure was 50%).

At the same time, the share of habitats in bad conservation status increased to 5.62% and the share of assessments for species in bad conservation status remained stable at 12.46%. The main pressures both for species and habitats are development, construction and use of residential, commercial, industrial and recreational infrastructure and areas and agriculture.

**Figure 8: Assessments on conservation status for habitats for 2007-2012 and 2013-2018<sup>29</sup>**



**Figure 9: Assessments on conservation status for species for 2007-2012 and 2013-2018 reporting periods<sup>30</sup>**



There seems to be a general lack of progress in maintaining or restoring the favourable conservation status of species and habitats protected under the nature directives.

A major challenge to protect and manage Natura 2000 sites effectively is to set up a national system for the comprehensive management, administration and functioning of protected areas (including strategy, structure, management schemes, responsibilities,

<sup>29</sup> European Environment Agency, [Conservation status and trends of habitats and species](#), December 2021. Please note when comparing the figures shown for 2007-2012 and 2013-2018 these may also be affected by changes of methods or due to better data availability.

<sup>30</sup> Idem.

financing, enforcement and monitoring). In particular, Greece has to execute the CJEU ruling of December 2020 in case C-849/19 by adopting all the necessary measures for establishing appropriate conservation objectives and conservation measures for all SCIs that are on its territory. The currently ongoing process is significantly delayed. However, the recent law<sup>31</sup>, adopted in May 2020, aims at remedying the situation by putting in place management bodies for all Natura 2000 sites and by establishing a central organisation (Natural Environment & Climate Change Agency). This new governance system is yet to be put in place and become fully operational.

Major obstacles to achieving the objectives of the Nature Directives include: (i) the lack of awareness (among authorities, stakeholders and the public) about Natura 2000 and its benefits; (ii) a lack of incentive to invest in promoting these benefits; (iii) insufficient scope for supporting sustainable land management and integrating it into other policies; and (iv) difficulties with enforcing the law.

Due to these shortcomings, many complaints and infringement cases are pending on issues such as: (i) the degradation of designated sites (e.g. case C-517/11 on lake Koroneia pollution) ; (ii) the poor quality of ‘appropriate assessments’ under Article 6(3) of the Habitats Directive as well as the lack of strategic assessments (e.g. on windfarm planning and subsequent authorisation of projects); and (iii) insufficient protection of species and habitats including against illegal activities (e.g. concerning the caretta caretta species in Kyparissia<sup>32</sup>).

### Bringing nature back to agricultural land and restoring soil ecosystems

#### Agricultural land

The biodiversity strategy works alongside the new farm to fork strategy and the new common agricultural policy (CAP) to support and achieve the transition to fully sustainable agriculture. The biodiversity and farm to fork strategies have set four important targets for 2030:

- a 50% reduction in the overall use of – and risk from – chemical pesticides;
- a 50% reduction in the use of more hazardous pesticides;
- a 50% reduction in losses of nutrients from fertilisers while ensuring there is no deterioration of soil fertility (which will result in 20% the reduction in the use of fertilisers);
- bring back at least 10% of agricultural area under high-

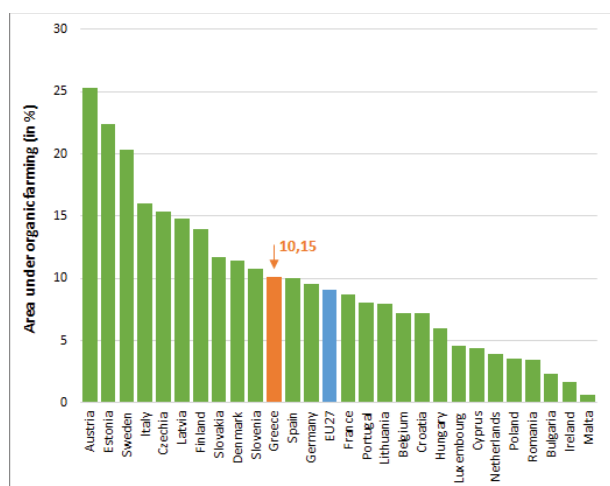
<sup>31</sup> v. 4685/2020

<sup>32</sup> [December infringements package key decisions \(1\).pdf](#)

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

As shown in the Figure 10 below, with an estimated 10.15% of its area under organic farming, Greece stands above the EU average of 9.07% (2020 data, Eurostat), showing a good potential for growth towards the EU-level Green Deal target of 25% of agricultural land by 2030.

**Figure 10: Share of total utilised agricultural area<sup>33</sup>**



According to the Commission's recommendations on Greece's CAP strategic plan<sup>34</sup>, total ammonia emissions in Greece have been steadily decreasing since 2013, in contrast with the rest of the EU. 91% of the ammonia emissions in 2018 came from agricultural sources. The steady increase in permanent grassland surfaces (from 16% of total agricultural area in 2010 to 39% in 2017) contributes positively to the overall GHG emissions trend.

In contrast, soil quality is an issue in Greece. The share of agricultural area at risk of soil erosion stands at 10.2%, above the EU average of 6.6%, and is much higher than in the north-west and the south. Wind erosion is also an issue in the Aegean islands. Specific Mediterranean characteristics mainly contribute to increased risk of soil erosion, with rainfall patterns and drought leading to loss of soil organic matter while sloping land, especially for pasture, increases the risk of soil erosion. The type of cultivated crops and other management practices such as reduced tillage, cover crops and agroforestry can help to protect the soil.

<sup>33</sup>

[https://ec.europa.eu/eurostat/databrowser/view/sdg\\_02\\_40/default/table?lang=en](https://ec.europa.eu/eurostat/databrowser/view/sdg_02_40/default/table?lang=en) (Eurostat, Area under organic farming, February 2022).

<sup>34</sup><https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020SC0372>

Water quality and quantity are one of the biggest challenges for Greek agriculture. Irrigated areas represented 24% of the total utilized agricultural area in Greece in 2016.

Pressures stemming from agricultural practices affect the majority of relevant habitat types, but mostly water ecosystems, and are associated with agricultural runoff, drainage, change of land use and of natural succession, pumping of groundwater, surface water and mixed water. Though in recent years there is a slight upsurge in traditional farming, the overall tendency of intensive and large-scale monocrop agriculture puts significant pressure on natural resources, namely water (scarcity and pollution) and soil (erosion, low soil organic carbon and pollution). It also has negative impacts on the landscape and leads to habitat fragmentation.

With 10% of area under organic farming in 2019, Greece is above the EU-27 average, showing a good potential for growth towards the EU level Green Deal target of 25% of agricultural land by 2030.

### Soil ecosystem

Soil is a finite and extremely fragile resource. It is increasingly degrading in the EU.

The new EU soil strategy, adopted on 17 November 2021, stresses the importance of soil protection, of sustainable soil management and of restoring degraded soils to achieve the Green Deal objectives as well as and land degradation neutrality by 2030.

This entails:

- (i) preventing further soil degradation;
- (ii) making sustainable soil management the new normal;
- (ii) taking action for ecosystem restoration.

One factor in the degradation of soil ecosystems is the area of soil that is sealed or artificialised<sup>35</sup>. In Greece (Figure 11) the land taken per year in 2012-2018 can be seen as a measure of one significant pressure on nature and biodiversity – land-use change. At the same time, land-use change constitutes an environmental pressure on people living in urbanised areas.

Greece ranks just above<sup>36</sup> the EU average on net land take (83,9 m<sup>2</sup>/km<sup>2</sup> vs 83,8 m<sup>2</sup>/km<sup>2</sup>).

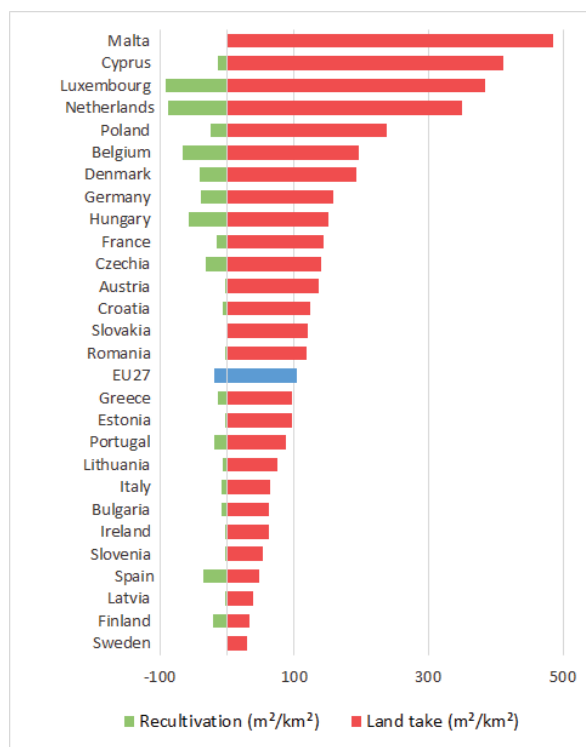
In 2018, Greece updated its reporting on land degradation according to the latest PRAIS3 reporting

<sup>35</sup> 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).

<sup>36</sup> [Land take in Europe – European Environment Agency \(europa.eu\)](https://www.eea.europa.eu/land-take)  
Fig 6

platform<sup>37</sup> with actions intended to achieve the degradation identified.

**Figure 11: Land take and re-cultivation in EU27 (m<sup>2</sup>/km<sup>2</sup>), 2012-2018<sup>38</sup>**



However, Greece has not yet committed to setting land degradation neutrality targets under UNCCD<sup>39</sup>.

As stated in the 2019 EIR, soil organic matter plays an important role in the carbon cycle and in climate change. Soils are the second largest carbon sink in the world after the oceans.

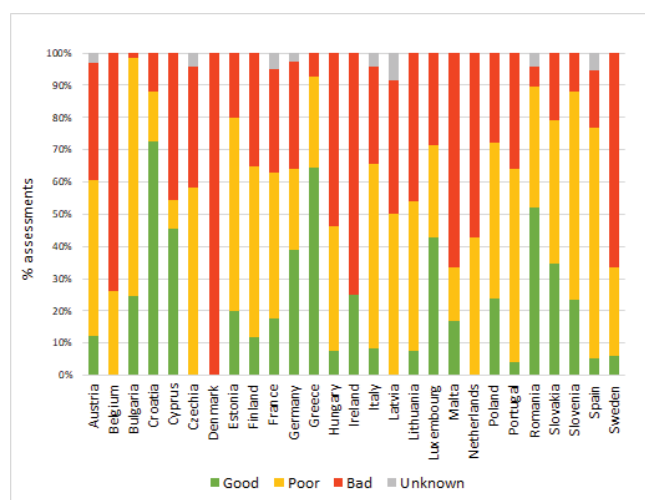
### Forests and timber

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

Out of the 27% of EU forest area protected under the Habitats Directive, less than 15% of assessments show a favourable conservation status<sup>40</sup>. Bad conservation status increased from 27% to 31% in the EU compared to 2015.

Forests cover 28.53% of Greece's territory<sup>41</sup> and more than 30% of the assessments of EU-protected forest habitats reveal a bad to poor status<sup>42</sup>, of which 60% shows an improving trend and the remaining 40% a constant trend.

**Figure 12: Conservation status of forests protected under the Habitats Directive in EU Member States, 2013-2018 (% assessments)<sup>43</sup>**



The European Union Timber Regulation (EUTR)<sup>44</sup> 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.

Between March 2017 and February 2019<sup>45</sup>, Greece carried out 488 checks on domestic timber operators. It also carried out 132 checks on operators importing timber. It is estimated that Greece had 1 600 operators placing domestic and 1 228 operators placing imported timber types onto the internal market over the reporting period.

<sup>37</sup> [All Reports | Prais3 \(unccd.int\)](#)

<sup>38</sup> European Environment Agency, [Land take in Europe](#), December 2021. European Environment Agency, [Land take in Europe](#), December 2021. European Environment Agency, [Land take in Europe](#), December 2021.

<sup>39</sup> [The LDN Target Setting Programme | UNCCD](#)

<sup>40</sup> EEA, [State of Nature in the EU](#)

<sup>41</sup> EEA, [Forest information system for Europe](#).

<sup>42</sup> [COM SWD \(2021\) 652](#)

<sup>43</sup> European Environment Agency, [Conservation status and trend in conservation status by habitat group - forests](#), January 2022.

<sup>44</sup> [Regulation \(EU\) No 995/2010 of the European Parliament and of the Council of 20 October 2010](#).

<sup>45</sup> [COM/2020/629 final](#)

The new Deforestation Regulation<sup>46</sup> 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 on nature and the economy, many invasive alien species 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 established invasive alien species and decrease the number of 'red list' species they threaten by 50%.

The core of Regulation (EU) 1143/2014 on Invasive Alien Species (the IAS Regulation<sup>47</sup>) is the list of invasive alien species 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<sup>48</sup> on the review of the application of the IAS Regulation, its implementation is already starting to deliver on its objectives, such as a coherent framework for addressing IAS at EU level and increased awareness of the problem of invasive alien species. At the same time, the above report identified some challenges and areas for improvement. Given that the deadlines for implementing the various obligations of the IAS Regulation applied gradually between July 2016 and July 2019, it is premature to draw conclusions on several aspects of the implementation of the IAS Regulation.

According to a 2021 report<sup>49</sup> on the baseline distribution, of the 66 species on the list, 7 have been observed in Greece. (See Figure 13.)

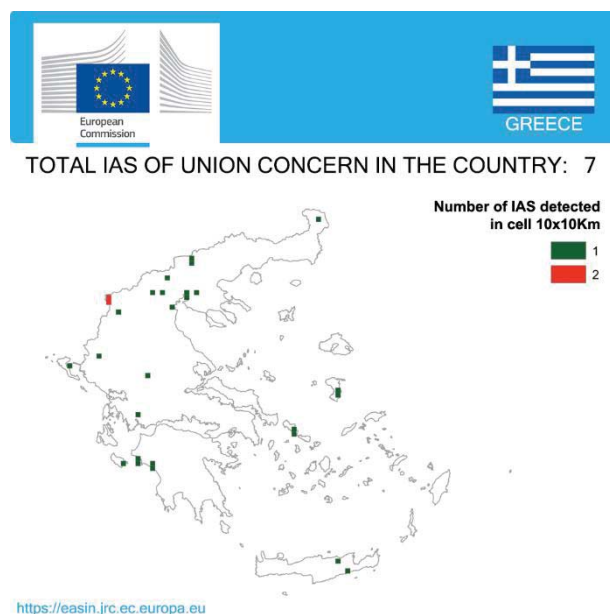
<sup>46</sup> A proposal for the Regulation on the making available on the EU market and export of products associated with deforestation and forest degradation.

<sup>47</sup> 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

<sup>48</sup> 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.

<sup>49</sup> Cardoso A.C., Tsiamis K., Deriu I., D' Amico F., Gervasini E., EU Regulation 1143/2014: assessment of invasive alien species of Union

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



An infringement case<sup>50</sup> has been launched against Greece as the country:

- failed to establish and implement a single action plan or set of action plans fulfilling the requirements specified in Article 13 of the IAS Regulation by 13 July 2019 and to submit it/them to the Commission without delay;
- failed to set up a surveillance system of IAS of Union concern, or include it in their existing system, monitoring or other procedures to prevent the spread of IAS into or within the EU by 13 January 2018 as required by Article 14(1) of the Regulation;
- failed to fulfil its Article 15(1) obligation to put in place fully functioning structures to carry out the official controls necessary to prevent the intentional introduction into the EU of IAS of Union concern<sup>51</sup>.

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](#)

<sup>50</sup> [Protecting biodiversity \(europa.eu\)](#)

<sup>51</sup> A Joint Ministerial Decision was recently published under the title: "Measures for the implementation 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 importation and spread of invasive alien species". The JMD was published in Government Gazette B'5697 /7-12-2021. Articles 2 and 8 of the JMD resolve the country's obligations to Article 15(1) of the Regulation.



## 2022 priority actions

- Define clear site specific conservation objectives for all Natura 2000 sites and put in place necessary conservation measures.
- Complete and implement the management plans and legal tools for all the sites. Ensure that all established management bodies operate effectively, with clear responsibilities and sufficient financial and human resources.
- Better integrate biodiversity concerns into other policies and promote better communication between actors.
- Increase the capacity of competent authorities (central, regional, site management bodies) to: (i) apply conservation measures that increase awareness about Natura 2000 and its benefits; (ii) raise awareness about the economic benefits of healthy ecosystems and offer incentives to invest in them; and (iii) improve enforcement to tackle illegal activities that harm wildlife, both within and outside Natura 2000 areas.
- Fill in the gaps in the monitoring system of the conservation status of protected habitats and species.
- Improve the quality of appropriate assessments at plan and project level and ensure that their environmental impact is adequately monitored.
- Step up action on implementing the recommendations set out in the Greek CAP Strategic Plan.
- Step up implementation action on the EU Invasive Alien Species Regulation.

## Marine ecosystems

The EU biodiversity strategy for 2030 calls on Member

A co-financed project entitled "Compilation of a list of invasive species and organization of a methodology for the assessment of their risk" is being implemented since February 2021. It includes proposals for the management and continuous monitoring of the most dangerous (to biodiversity) invasive species. The project has been included in the Operational Program "Transport Infrastructure, Environment and Sustainable Development 2014-2020". It is serving as a first step for fulfilling the requirements of the EU regulation concerning the adoption of Action Plans (Article 13 of the Regulation), and will also propose the specifications of the surveillance system of Article 14(1). Due to the significant interaction of Invasive Alien Species with Fisheries, the General Directorate of Fisheries of the Ministry of Rural Development and Food already implements actions within the Operational Program "Fisheries and Maritime 2014-2020" which are implemented in parallel and in collaboration with the actions of the Ministry of Environment and Energy and are aimed at tackling the effects of the most harmful alien species to Fisheries.

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 <sup>52</sup>.

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

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 initial assessment of their marine waters (Article 8). The Commission then assesses whether this constitutes an appropriate framework to meet the requirements of the Directive.

The MSFD also requires that Member States assess the current environmental status of their marine waters against the defined GES characteristics. A good or very good score indicates that a Member State has good capabilities to assess their marine environment in accordance with the requirements set out in the Commission's GES decision.

Greece has not reported data on the state of the environment, definitions of GES or environmental targets.

Currently, Greece has signed but not yet ratified:

- the offshore protocol to the Barcelona Convention;
- the protocol on Specially Protected Areas and biological diversity in the Mediterranean;
- the protocol on integrated coastal zone management;

Moreover, Greece has neither signed nor ratified the International Convention for the Regulation of Whaling.

As highlighted in the Commission's report on the implementation of the MSFD<sup>53</sup>, 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.

<sup>52</sup> The EU Common Fisheries Policy (CFP) aims to contribute to the achievement of the objectives of the environmental legislation for marine ecosystems.

<sup>53</sup> [COM\(2020\)259](#)

In the EIR 2019, the Commission suggested that Greece should ensure timely reporting of the different elements under the Marine Strategy Framework Directive so that Greece can be part of future Commission assessments. However, Greece has shown no progress in this respect.

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

- Report data on the state of the environment, determinations of GES and environmental targets.
- Ensure regional cooperation with Member States sharing the same marine (sub) region to address predominant pressures.
- Sign and ratify the International Convention for the Regulation of Whaling (1946). Ratify the offshore protocol to the Barcelona Convention; the protocol concerning Specially Protected Areas and biological diversity in the Mediterranean; the protocol on integrated coastal zone management.

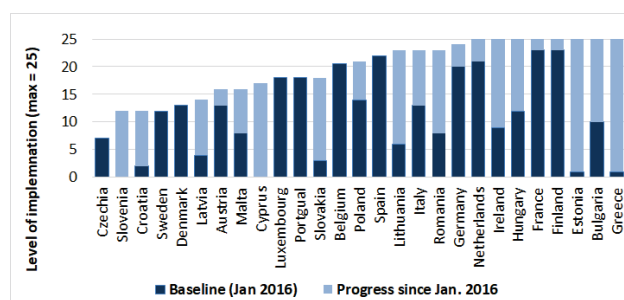
## Ecosystem assessment and accounting

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.

Ecosystem assessment developments in Greece mainly occur under the LIFE-IP 4Natura project (2017-2025)<sup>54</sup>. A key deliverable is the Technical-methodological guide on the determination and assessment of ecosystem types in Greece and their national, regional and local ecosystem services. The first glossary<sup>55</sup> in Greek for MAES related studies was produced in 2018. MAES field surveys were also carried out for the national assessment using an agreed field protocol for assessing

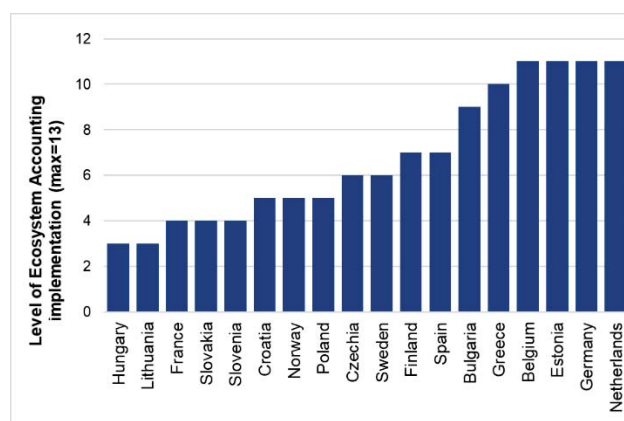
ecosystem condition and services. The project's key deliverables, produced in 2020, were a map of Greece's ecosystem services' priority areas and a map of ecosystem types outside Natura 2000 SACs. Presentations were given in several regions level to raise awareness about ecosystem services and their relevance for policy support and decision making. Greece has provided updated information and significant progress has been recorded since January 2016 (Figure 14). This assessment is based on 27 implementation questions and updated every 6 months.

**Figure 14: ESMERALDA MAES Barometer. January - March 2021<sup>56</sup>**



Progress on ecosystem accounting implementation is assessed at national level based on 13 questions (see Figure 15).

**Figure 15: Ecosystem accounting Barometer, September 2021<sup>57</sup>**



<sup>56</sup> European Commission, Joint Research Centre, Publication Office, [EU Ecosystem assessment: summary for policymakers](#), page 80, May 2021.

<sup>57</sup> 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 a comprehensive statistical framework that is based on five core accounts: ecosystem extent, condition, services and monetary ecosystem asset.

<sup>54</sup> [Natura 2000 – Edo Zoome](#)

<sup>55</sup> [Glossary of ecosystem services mapping and assessment terminology \(pensoft.net\)](#)

Ecosystem accounting in Greece is currently in its infancy. However, the policy relevance is clear. Up to now, no accounts have been finalised in Greece. However, a national ecosystem extent account, an ecosystem monetary asset account and a thematic biodiversity account, all for woodland and forest, are being developed and are expected to be published soon. On accounts for ecosystem services, a methodological framework is being designed for physical as well as for monetary accounting of water-related ecosystem services (i.e. water regulation).

The data needed for setting up natural capital accounting in Greece is scarce and unavailable. Methodologies have been developed to gather missing information and to start to develop accounts on ecosystems, ecosystem services and biodiversity.

The main obstacles for the SEEA EEA implementation in Greece are the lack of capacity and expertise of the involved stakeholders and state agencies, along with data gaps. Knowledge sharing among MAIA partners should address these shortcomings and provide guidance via each country's pilot accounts.

### 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.
- Implement the Commission's recommendations regarding the preparation of the marine strategies, encompassing: the assessment, the determination of good environmental status and the establishment of environmental targets.

### 3. Zero pollution

#### Clean air

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

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

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

The EU has developed a comprehensive body of air quality legislation<sup>42</sup>, which sets health-based air quality standards<sup>58</sup> and emission reduction commitments<sup>59</sup> by Member State for a number of air pollutants.

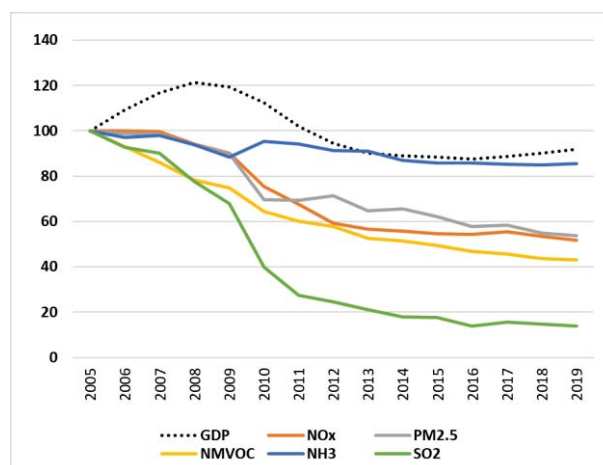
However, air quality in Greece continues to be a serious concern. The latest available annual estimates (for 2019) by the European Environment Agency<sup>60</sup> point to about 10 400 premature deaths (or 107 300 years of life lost (YLL)) attributable to fine particulate matter concentrations<sup>61</sup>, 650 (6 900 YLL) to ozone concentrations<sup>62</sup> and 2 310 (23.900 YLL) to nitrogen dioxide concentrations<sup>63 64</sup>.

The emissions of several air pollutants have decreased significantly in Greece over the last years, while GDP growth continued (see graph). According to the latest projections as submitted under Article 10(2) of the National Emission reduction Commitments Directive (NECD)<sup>65</sup> Greece expects to fulfill the emission reduction commitments for all air pollutants covered by the directive for 2020- 2029 and for 2030 onwards. Latest inventory data submitted by Greece, prior to review by

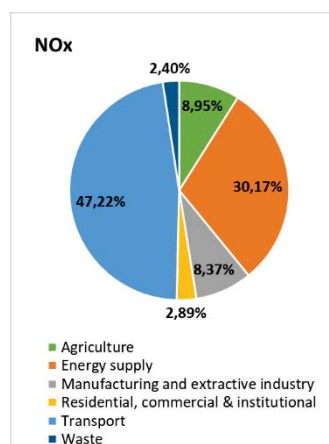
the Commission, indicate that Greece is in compliance with the emission reduction commitments for all pollutants in 2020.

Greece submitted its national air pollution control programme on 29 January 2021.

**Figure 16: Emission trends of main pollutants/ GDP in Greece, 2005-2019<sup>66</sup>**



**Figure 17: PM2.5 and NOx emissions by sector in Greece, 2019<sup>67</sup>**



<sup>58</sup> European Commission, 2016. [Air Quality Standards](#).

<sup>59</sup> European Commission, [Reduction of National Emissions](#).

<sup>60</sup> [European Environment Agency, Air Quality in Europe –2021 Rapport](#). Please see details in this report as regards the underpinning methodology, p.106

<sup>61</sup> Particulate matter (PM) is a mixture of aerosol particles (solid and liquid) covering a wide range of sizes and chemical compositions. PM10 (PM2.5) refers to particles with a diameter of 10 (2.5) micrometres or less. PM is emitted from many human sources, including combustion.

<sup>62</sup> Low-level ozone is produced by photochemical action on pollution.

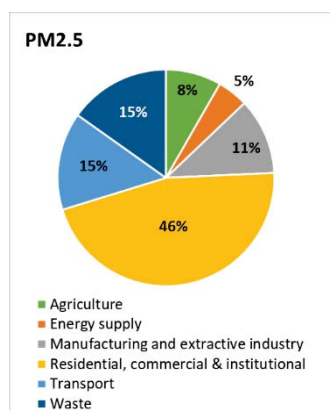
<sup>63</sup> NOx is emitted during fuel combustion e.g. from industrial facilities and the road transport sector. NOx is a group of gases comprising nitrogen monoxide (NO) and nitrogen dioxide (NO2).

<sup>64</sup> Note that these figures refer to the impacts of individual pollutants, and to avoid double-counting cannot be added up to derive a sum.

<sup>65</sup> Directive 2016/2284/EU

<sup>66</sup> European Environment Agency

<sup>67</sup> European Environment Agency



For 2020, exceedances above the EU air quality standards were registered for nitrogen dioxide (NO<sub>2</sub>) in one air quality zone and for particulate matter (PM<sub>10</sub>) in two zones. Furthermore, in several air quality zones the target values on ozone concentration are not being met<sup>68</sup>.

Greece has not yet ratified the amended Gothenburg Protocol, the Heavy Metals Protocol and the POPs Protocol under the UNECE Air Convention.

Persistent breaches of air quality requirements, which have severe negative effects on health and the environment, are being followed up by the European Commission through infringement procedures (mainly over PM<sub>10</sub> and NO<sub>2</sub> exceedances) for all Member States concerned, including Greece. The European Commission has referred Greece to the Court of Justice of the EU for poor air quality due to the persisting exceedances of PM<sub>10</sub> limit values in the agglomeration of Thessaloniki and NO<sub>2</sub> limit values in the agglomeration of Athens (cases C-70/21 and C-633/21 respectively). The aim of these legal actions is that Greece adopts and puts in place appropriate measures in all air quality zones so that they comply with the EU limit values.

In the 2019 EIR, Greece received five priority actions. The first - to take specific action under the national air pollution control programme (NAPCP) – has only seen limited progress, so it is repeated in this EIR. On the second priority action to upgrade and improve air quality monitoring and ensure timely reporting, Greece made some progress with the NAPCP being adopted. On the third and fourth - to reduce nitrogen oxides and particulate matter, including through planning, fiscal and energy choices, some progress was made, but WHO and EU standards still need to be complied with. There was some progress on the fifth and final one - to build on the 'Coal Regions in Transition' initiative to reduce the use of coal for domestic heating to limit air pollutant emissions,

<sup>68</sup> European Environment Agency, [Eionet Central Data Repository](#)

in the form of government commitments and the adoption of Greece's Just Transition plan. Greece also received a general priority action in 2019 to sign and ratify outstanding international agreements.

## 2022 priority actions

- Take, in the context of the National Air Pollution Control Programme (NAPCP), actions towards reducing emissions from the main sources mentioned above.
- Ensure full compliance with the EU air quality standards and maintain downward emissions trends of air pollutants, to reduce adverse air pollution impacts on health and economy with a view to reaching WHO guideline values in the future.
  - Greece is strongly encouraged to accelerate the ratification of the amended Gothenburg Protocol, Heavy Metals Protocol and POPs Protocol under the UNECE Air Convention.

## Industrial emissions

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

- protect air, water and soil;
- prevent and manage waste;
- improve energy and resource efficiency;
- 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<sup>69</sup> (IED).

As announced in the European Green Deal, the Commission carried out an impact assessment for the revision of the IED in 2021 with a view to tabling a proposal in early 2022<sup>70</sup>. 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 below overview of industrial activities regulated by the IED is based on data reported to the EU Registry (2018)<sup>71</sup>.

In Greece, around 340 industrial installations are required to have a permit based on the IED. The distribution of installations is shown in the figure below.

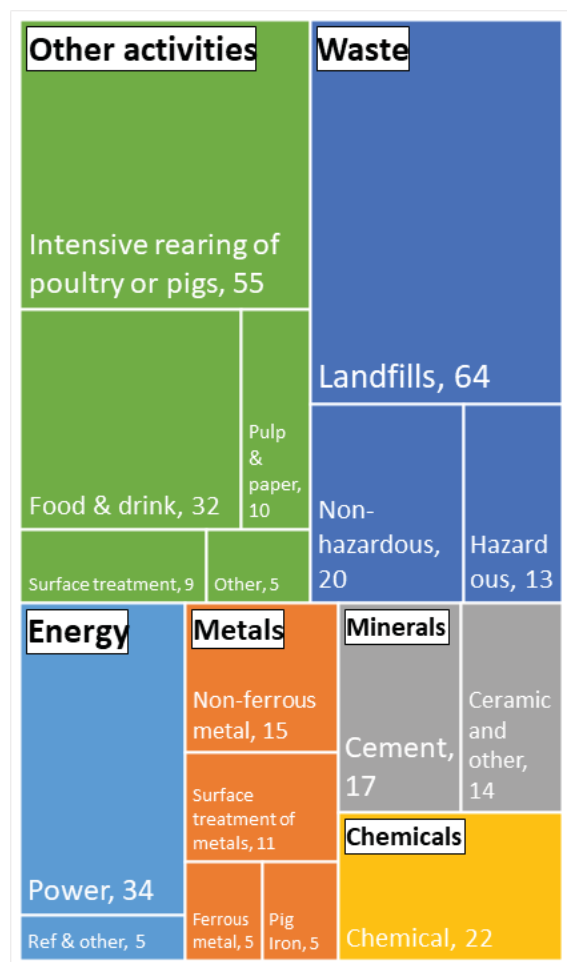
<sup>69</sup> Directive 2010/75/EU covers industrial activities carried out above certain thresholds. It covers energy industry, metal production, mineral and chemical industry and waste management, as well as a wide range of industrial and agricultural sectors (e.g. intensive rearing of pig and poultry, pulp and paper production, painting and cleaning).

<sup>70</sup> 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).

<sup>71</sup> European Environment Agency, [European Industrial Emissions Portal](#).

The industrial sectors in Greece with most IED installations in 2018 were the waste management sector, including landfills (29%), followed by intensive rearing of poultry and pigs (16%), the energy sector (12%) and the food and drink sector (10%).

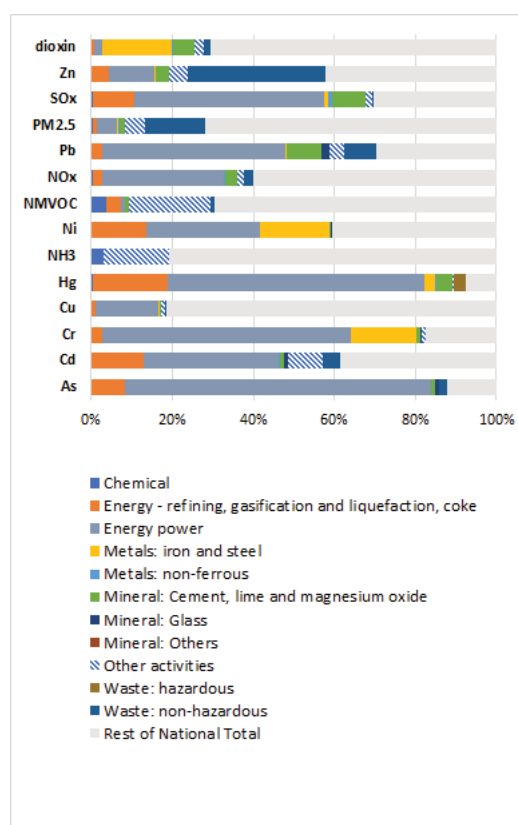
**Figure 18: Number of IED industrial installations per sector in Greece, 2018<sup>72</sup>**



The industrial sectors known to be the most harmful to the environment in Greece in terms of air emissions are: (i) the energy sector for arsenic (As), cadmium (Cd), chromium (Cr), copper (Cu), mercury (Hg), sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), nickel (Ni), lead (Pb), zinc (Zn), and particulate matter (PM<sub>2.5</sub>); (ii) the production and processing of metals (in particular iron and steel) for Cu and dioxins; (iii) intensive rearing of poultry or pigs for ammonia (NH<sub>3</sub>); and (iv) surface treatment and the food, drink and milk sectors for non-methane volatile organic compounds (NMVOCs). See the breakdown in the graph below.

<sup>72</sup> European Environment Agency, EU Registry, [European Industrial Emissions Portal \(data retrieved on 3 November 2021\)](#).

**Figure 19: Emissions to air from IED sectors and rest of national total air emissions in Greece, 2018<sup>73</sup>**



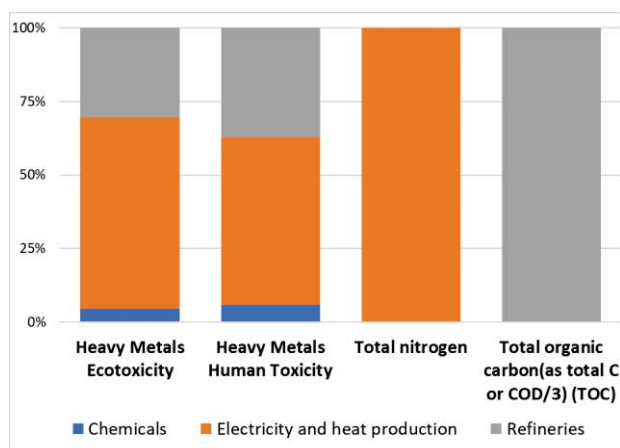
In 2017, one power station in Greece (located in Agios Dimitrios) was among the top 30 E-PRTR facilities with the highest absolute damage costs from emissions of the main air pollutants and greenhouse gases<sup>74</sup>.

The environmental burdens caused by industrial emissions to water is mainly from the energy sector for total nitrogen and heavy metals, and from refineries for total organic carbon (TOC). The breakdown, based on E-PRTR data, is presented in the figure below.

<sup>73</sup> European Environment Agency, LRTAP, [Air pollutant emissions data viewer \(Gothenburg Protocol, LRTAP Convention\) 1990-2019 \(data retrieved on 3 November 2021\)](#).

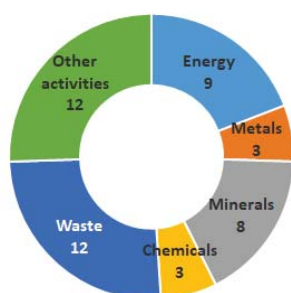
<sup>74</sup> EEA (2021). [Costs of air pollution from European industrial facilities 2008-2017](#). Eionet Report - ETC/ATNI 2020/4. The ranking is based on the approach accounting for the value of a life year (VOLY), table 41, p.124 & table 44, p.138.

**Figure 20: Relative releases to water from industry in Greece, 2018<sup>75</sup>**



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 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, Greece made 47 site visits, mostly to the waste management sector, including landfills (26%), followed by installations for the energy sector (19%), the mineral sector (17%) and the food and drink sector (11%).

**Figure 21: Number of inspections in IED installations in Greece in 2018<sup>76</sup>**



<sup>75</sup> 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](#)).

<sup>76</sup> European Environment Agency, EU Registry, [European Industrial Emissions Portal](#) ([data retrieved on 3 November 2021](#)).

The development of best-available-technique (BAT) reference documents (BREFs) and BAT conclusions ensures good collaboration between stakeholders and enables better implementation of the IED<sup>77</sup>. Since the last EIR report, the Commission adopted BAT conclusions for Belgium 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. This should result in considerable and continuous reduction of pollution.

In 2019, Greece received priority actions to review permits and to strengthen control and enforcement, in line with BAT conclusions. Greece reported on the action taken in this respect via the EU Registry, and the Commission is following up by checking that the information provided by Greece on the permits granted for each installation is in line with the IED. Another priority action for Greece was to address pollution in power sector installations, especially in the Agios Dimitrios, Kardia and Amindeo lignite power plants. In addition, an infringement case is ongoing on authorisations granted to large combustion plants.

#### 2022 priority action

- Continue addressing pollution in energy sector, especially in the Agios Dimitrios coal power plant.

#### Prevention of major industrial accidents – SEVESO

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

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

The cornerstone of the policy is Directive [2012/18/EU](#) (the Seveso-III Directive)<sup>78</sup>.

The below overview of industrial plants regulated by the Seveso-III Directive, ('Seveso establishments'), is based

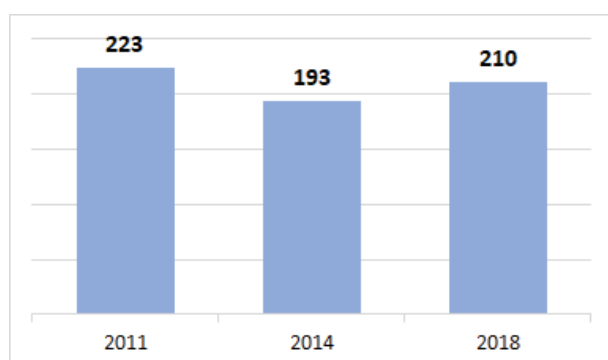
<sup>77</sup> European Commission [BAT reference documents](#).

<sup>78</sup> Directive [2012/18/EU](#) on the control of major-accident hazards involving dangerous substances

on data reported to the eSPIRS database (2018)<sup>79</sup> and Greece's report on the implementation of the Seveso-III Directive for the period 2015-2018<sup>80</sup>.

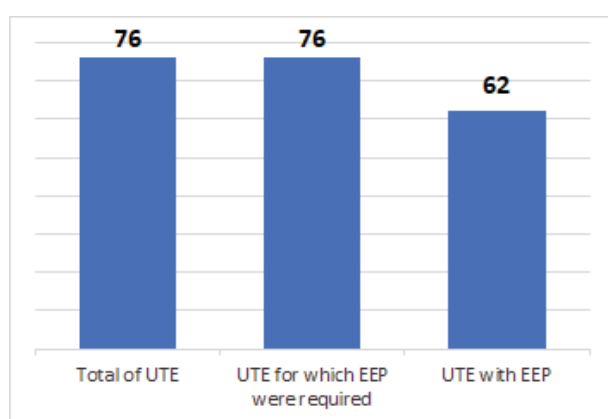
Of the 210 Seveso establishments in Greece, 134 are categorised as lower-tier establishments (LTE) and 76 as upper-tier establishments (UTE) – based on the quantity of hazardous substances likely to be present. The UTE are subject to more stringent requirements. The number of Seveso establishments for various years is presented in Figure 22.

**Figure 22: Number of Seveso establishments in Greece, 2011, 2014 and 2018<sup>81</sup>**



According to the Greek authorities, an external emergency plan (EEP) is required for 76 UTE. In 2018, 62 UTE had an EEP. (See Figure 23.) Establishing EEPs is essential to properly prepare and implement the necessary actions to protect the public and the environment in the case of a major industrial accident.

**Figure 23: Situation regarding EEP in Greece, 2018<sup>82</sup>**



<sup>79</sup> European Commission, [Seveso Plants Information Retrieval System](#).

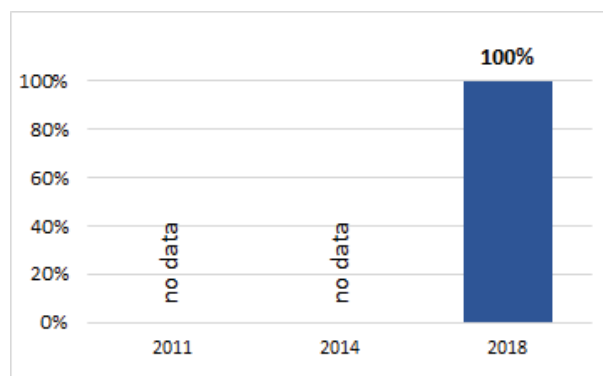
<sup>80</sup> As provided for by Article 21(2) of the Seveso-III Directive

<sup>81</sup> 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.

<sup>82</sup> idem.

The information to the public referred to in Annex V of the Seveso-III Directive – especially on how they will be warned in the case of a major accident ; the appropriate behaviour in the event of a major accident ; and the date of the last site visit – are permanently available for 70% of the Seveso establishments in Greece. This is important, as arming the public with information may reduce the consequences of a major industrial accident.

**Figure 24: Share of UTE for which information on safety measures and desired behaviours was made available to the public in Greece, 2011, 2014 and 2018<sup>83</sup>**



## 2022 priority action

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

## Noise

The Environmental Noise Directive 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 strategic noise mapping and planning. A key target under the 2030 zero pollution action plan is to reduce by 30% the share of people chronically disturbed by transport noise compared to 2017.

Excessive noise from aircraft, railways and roads is one of the main causes of environmental health-related issues in the EU. It can cause ischaemic heart disease, stroke, interrupted sleep, cognitive impairment and stress<sup>84</sup>.

In Greece, based on limited data, environmental noise is estimated to cause at least 100 premature deaths and 300 cases of ischaemic heart disease per year<sup>85</sup>. In

<sup>83</sup> idem

<sup>84</sup> WHO 2018, Environmental Noise Guidelines for the European Region

<sup>85</sup> These figures are an estimation by the European Environmental Agency based on : (i) the data reported by Member States on noise



addition, some 45 000 people suffer from disturbed sleep. According to the latest full set of information that has been analysed, noise mapping of roads and agglomerations remains incomplete. Moreover, Greece still lacks action plans for 10 agglomerations and most roads. These plans, which will undergo a public consultation, should include measures to reduce noise.

The two priority actions set out in the 2019 EIR are rolled over, as Greece's progress has been limited, as detailed above.

### 2022 priority actions

- Complete noise mapping.
- Complete action plans for noise management in agglomerations and major roads.

## 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 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 (WFD)<sup>86</sup> is the cornerstone of the EU water policy for the 21<sup>st</sup> century<sup>87</sup>. The WFD and other water-related legislation<sup>88</sup> set the framework for sustainable and integrated water management, which aims to ensure a high level of protection of water resources, prevention of further deterioration and restoration to good status.

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.

<sup>86</sup> The [Water Framework Directive \(2000/60/EC\)](#).

<sup>87</sup> The [EU Water Policy](#).

<sup>88</sup> 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 \(2020/741\)](#).

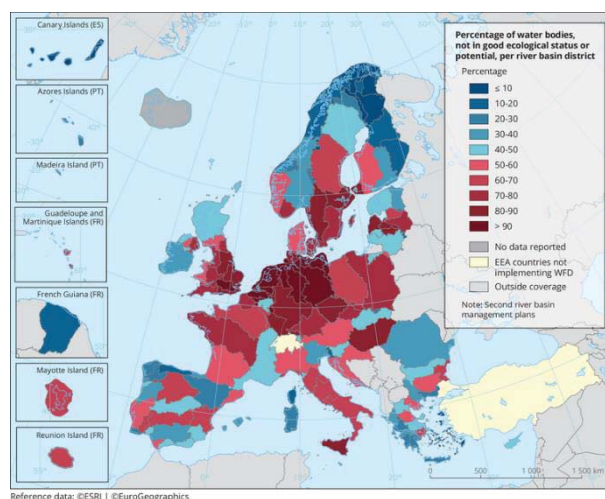
By March 2022, Member States have to report the third generation of river basin management plans (RBMPs) under the WFD. The Commission will assess the reported status and progress, checking how the findings identified in the assessment of the second RBMPs<sup>89</sup> have been addressed. Greece has not yet reported the third RBMPs.

The Commission's 6<sup>th</sup> implementation report on the WFD<sup>90</sup>, published in December 2021, assessed the progress of the implementation of the 'programmes of measures' and the monitoring of the new priority substances, among other developments. The progress report for Greece<sup>91</sup> stated that most of the measures were planned to begin in the second half of the second cycle, and found that the level of actual implementation in the field is unknown.

According to the 2<sup>nd</sup> RBMPs reporting and data published in 2020<sup>92</sup>, 63.8% of all surface water bodies in Greece<sup>93</sup> are in a good ecological status (with 8.0% in an unknown status) and 88.6% are in a good chemical status (with 9.8% in an unknown status). For ground waters, 84.6% achieve good chemical status and 15.7% are in poor a quantitative status.

The below figure shows the proportion of surface water bodies in the EU that failed to achieve good ecological status.

**Figure 25: Proportion of surface water bodies (rivers, lakes, transitional and coastal waters) in less than good ecological status per River Basin District<sup>94</sup>**



<sup>89</sup> Detailed information can be found in the [5<sup>th</sup> Report from the Commission on the implementation of the Water Framework Directive and the Floods Directive](#), as well as in the 2019 EIR.

<sup>90</sup> See the [6<sup>th</sup> Implementation Report of the WFD and FD](#).

<sup>91</sup> 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: [Greece](#), 2022.

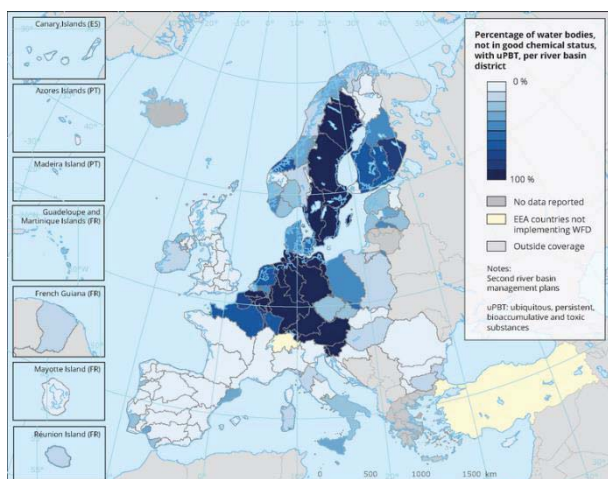
<sup>92</sup> [WISE Freshwater \(europa.eu\)](#)

<sup>93</sup> River, lake, transitional, coastal, territorial

<sup>94</sup> European Environment Agency, [2021](#).

The below figure shows the proportion of surface water bodies in the EU that failed to achieve a good chemical status. For Greece, the percentage is 1.6%, if one includes water bodies failing due to substances behaving as ubiquitous PBTs (persistent, bio-accumulative and toxic chemicals). Without PBTs, 1% of surface water bodies failed to achieve good chemical status (with 10% of unknown chemical status).

**Figure 26: Percentage of water bodies not achieving good chemical status<sup>95</sup>**



Under the IED framework, it should be stressed that Greece showed a significant increase (236%) over the last decade in industrial releases of heavy metals like Cd, Hg, Ni, Pb and a decrease (55.4%) in Total Organic Carbon – TOC to water<sup>96</sup>.

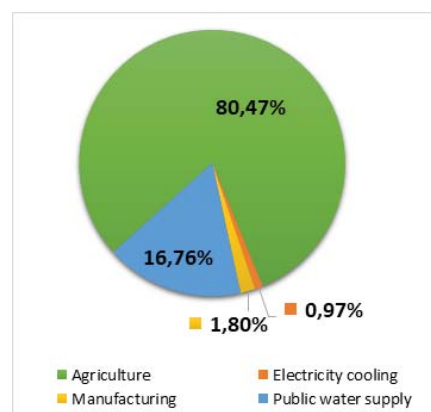
The total water abstracted annually (corresponding to 2019 baseline) in Greece from surface and groundwater sources is 10,027. 80 hm<sup>3</sup> (EEA, 2022). Water abstraction per sector is as follows: 80.47% for agriculture; 16.76% for public water supply; 0.97% for electricity cooling; and 1.80% for manufacturing (see the following figure). Greece uses a register to control water abstractions. Water use and water utilisation projects are subject to authorisation, while all relevant permits are registered in the National Register of Abstractions (NRA). These authorisations are reviewed, as appropriate, if an amendment is requested (change of name, use, quantity, etc.) and in accordance with the Programme of Measures of the RBMPs. Review intervals can therefore exceed 6 years. As many permit applications are still pending, the NRA cannot provide accurate data on the number of water abstractions and on the amount of water abstracted.

<sup>95</sup> European Environment Agency, [December 2019](#).

<sup>96</sup> European Environment Agency, June [2021](#).

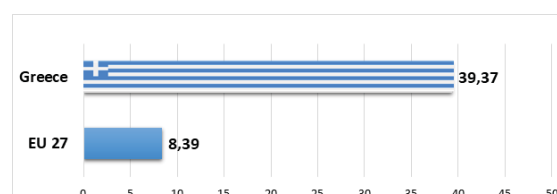
The increasing demand for water for multiple purposes and the intensification of severe weather conditions due to climate change have put significant strain on freshwater supplies in Greece. The registration of water abstraction is a positive step, as it also gathers information on inactive abstractions, abstractions in private networks and abstractions for the needs of forestry services in forested areas and areas designated for reforestation.

**Figure 27: Water abstraction per sector in Greece<sup>97</sup>**



According to the WEI<sup>98</sup>, Greece's level of water scarcity stands at 39.37%, just below the 40% threshold for 'severe' water scarcity<sup>99</sup>. Figure 28 below shows how Greece compares to the EU average. Greece has the 2<sup>nd</sup> highest level of water scarcity in the EU.

**Figure 28 : Water exploitation index plus (WEI+) inside EU, 2017<sup>100</sup>**



<sup>97</sup> European Environment Agency, [Water abstraction by source and economic sector in Europe](#), 2022.

<sup>98</sup> 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.

<sup>99</sup> 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.

<sup>100</sup> European Environment Agency, [Water exploitation Index Plus](#), 2022.

## Floods Directive

As mentioned, the Commission published the 6<sup>th</sup> implementation report on the FD in December 2021, which included a review and update of the preliminary flood risk assessments during the second cycle (2016-2021).

The assessment report<sup>101</sup> identified the additional work on the change in rainfall intensity due to climate change as a good practice. Moreover, methodologies have been worked out for the revision of the APSFRs and for defining past floods with significant adverse impacts and potential adverse consequences of future floods. Explicit consideration of the effects of long-term developments (e.g. land use change), beyond climate change, should be added to these methodologies.

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

## Drinking Water Directive

On the Drinking Water Directive<sup>102</sup>, no new assessment of the quality of drinking water is available since the 2019 EIR. The quality of drinking water in Greece has not been highlighted as an area of concern.

The recast Directive<sup>103</sup> entered into force on 12 January 2021, and Member States have until 12 January 2023 to transpose it into their national legal system. Greece will have to comply with these reviewed quality standards.

## Bathing Water Directive

On the Bathing Water Directive, Figure 29 shows that in 2020 97.1% of Greece's 1 634 bathing waters were of excellent quality<sup>104</sup>. Detailed information on Greek bathing waters is available on the national portal<sup>105</sup> and on an interactive map developed by the European Environment Agency<sup>106</sup>.

Figure 29: Bathing water quality in Europe in the 2020 season<sup>107</sup>

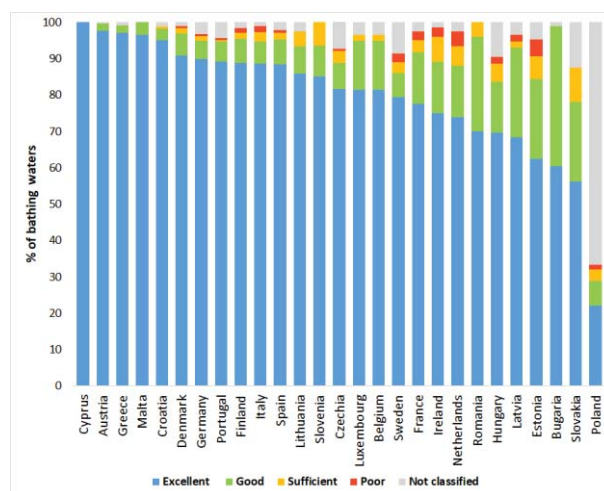
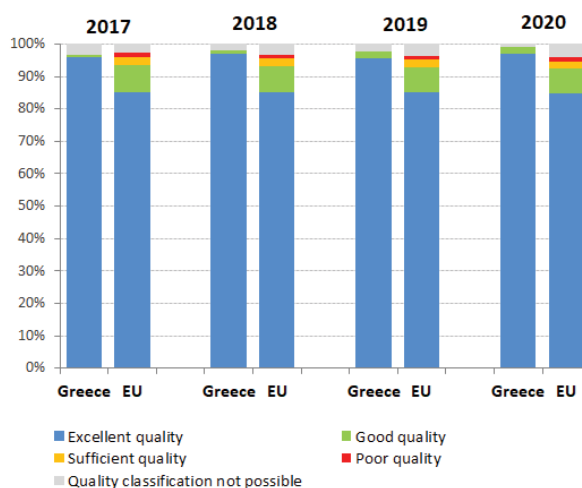


Figure 30: Greece, bathing water quality 2017-2020<sup>108</sup>



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

## Nitrates Directive

The Commission's latest implementation report on the Nitrates Directive<sup>109</sup>, covering 2016-2019<sup>110</sup>, warns that nitrates are still causing harmful pollution to EU water. 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, as well as on sectors such as fisheries and tourism that depend on

<sup>101</sup> 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 : [Greece](#), 2022

<sup>102</sup> OJ L 330, 5.12.1998, p. 32–54.

<sup>103</sup> OJ L 435, 23.12.2020, p. 1–62.

<sup>104</sup> European Environment Agency, 2021. [State of bathing water — European Environment Agency \(europa.eu\)](#).

<sup>105</sup> [EY - Greek Bathing Water Profiles Registry](#)

<sup>106</sup> EEA, [State of bathing waters in 2020 — European Environment Agency \(europa.eu\)](#)

<sup>107</sup> European Environment Agency, [Bathing Water Quality in 2020](#), 2022.

<sup>108</sup> European Environment Agency, [European Bathing Water Quality in 2017, 2018, 2019, 2020](#).

<sup>109</sup> Implementation of the [Nitrates Directive](#) in the EU.

<sup>110</sup> Last [Implementation Report 2016-2019](#)

them. Nevertheless, excessive fertilisation remains a problem in many parts of the EU.

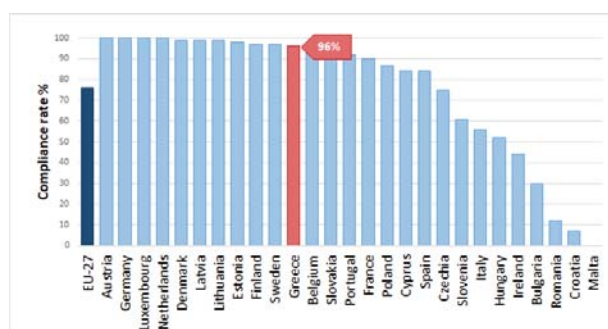
Greece has a low livestock density and the surplus of nitrogen is in line with the EU average, while there is almost no surplus of phosphorus. It has a well-developed network of monitoring stations. The latest report includes data for year 2018-2019 only, missing 2016-2017. There are a number of hotspots, with a nitrate concentration above 50 mg/l. A high number of surface waters are eutrophic. Groundwater quality has been improved between the reporting periods 2012-2015 and 2016-2019, since the recorded levels of nitrates fell by 14.2% for average concentrations above the limit of 50 mg/l NO<sub>3</sub> and by 7.5% above 40 mg/l NO<sub>3</sub> (EEA, CDR, Nitrates Report 2020). A high number of groundwater monitoring stations with nitrate concentrations above 50 mg/l and of surface waters found to be eutrophic are located outside of nitrate vulnerable zones (NVZ). A revised action programme was published in 2019.

### Urban Waste Water Treatment Directive

Greece has, over the years, encountered serious and structural difficulties in meeting its obligations under the Urban Waste Water Treatment Directive (UWWTD).

Overall, 96% of urban waste water in Greece is treated according to the requirements of the UWWTD<sup>111</sup>. This is above the EU average of 76% in 2018. On the amount of urban wastewater that needs to be collected according to the UWWTD, Greece has met its targets. However, further efforts are needed to provide biological treatment to an additional 3.8% and biological treatment with nitrogen and/or phosphorus removal to 0.6%. Greece reuses 2% of treated urban wastewater for irrigation in agriculture and for other uses.

**Figure 31: 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')<sup>112</sup>**



<sup>111</sup> [Greece \(europa.eu\)](https://europea.eu)

<sup>112</sup> European Commission, [WISE Freshwater](#), 2021.

Despite the steady improvement in compliance over the years, for which EU funding has been fundamental, the incomplete implementation of the UWWTD has already led to several Court of Justice rulings against Greece. Greece has had to pay heavy fines in two urban waste water cases (collection and treatment of wastewater in five agglomerations in Eastern Attica<sup>113</sup> and in four agglomerations in Western Attica<sup>114</sup>). To date, it has paid approximately EUR 67 million for these two cases. It has also been condemned by the Court in another case, for lack of adequate collection and treatment of wastewater in various small agglomerations<sup>115</sup>.

The 2019 EIR for Greece included three priority actions on water management. Considering that progress has been limited, the following actions are suggested.

### 2022 priority actions

- New physical modifications of water bodies should be assessed in line with Article 4(7) of the WFD. In these assessments alternative options and adequate mitigation measures should be considered.
- To adopt the 2nd FRMPs and 3rd RBMPs.
- Efforts should be done to improve the coordinated implementation between water, marine and nature policies.
- Verify the designation of NVZ, considering that not all the ground waters with nitrate concentrations above 50 mg/l and surface waters found to be eutrophic are included in the NVZ's. Extend the monitoring data to include the four years of the reporting period and report the trends.
- Complete implementation of the Urban Waste Water Treatment Directive for all agglomerations, by building up the necessary infrastructure.

## Chemicals

The EU seeks to ensure that chemicals are produced and used in a way that minimises any significant adverse effects on human health and the environment. In October 2020, the Commission published its chemicals strategy for sustainability - 'Towards a Toxic-Free Environment'<sup>116</sup> which led to some systemic changes in EU chemicals legislation. It is part of the EU zero pollution ambition, which is a key commitment of the European Green Deal.

The EU's chemicals legislation<sup>117</sup> provides baseline protection for human health and the environment. It also

<sup>113</sup> C-167/14

<sup>114</sup> C-328/16

<sup>115</sup> C-320/15

<sup>116</sup> [COM\(2020\) 667 final](#)

<sup>117</sup> REACH: OJ L 396, 30.12.2006, p.1. - CLP: OJ L 252, 31.12.2006, p.1

ensures stability and predictability for businesses operating within the internal market.

Since 2007, the Commission has gathered information on the enforcement of the Regulation on the Registration, Evaluation, Authorisation and Restriction of Chemicals ('the REACH Regulation') and the Regulation on Classification, Labelling and Packaging ('CLP Regulation').. In December 2020, the Commission assessed the Member States reports on the implementation and enforcement of these Regulations<sup>118</sup>, in line with Article 117(1) of the REACH Regulation and Article 46(2) of the CLP Regulation. According to the latest available data, national enforcement structures have not changed much in recent years. However, it is apparent from this report that there are still many disparities in the REACH-CLP implementation and notably in the area of the law enforcement. The recorded compliance levels in Member States seem to be quite stable over time, but with a slight worsening trend, which is likely due to: (i) enforcement authorities being more effective in detecting non-compliant products/companies; and (ii) more non-compliant products being put on the EU market. In August 2021, the Commission published a quantitative assessment of the enforcement<sup>119</sup> of the two main EU Regulations on chemicals (the REACH Regulation and the CLP Regulation) using a set of indicators on different aspects of enforcement.

Responsibility for checking compliance with REACH in Greece lies with the following authorities<sup>120</sup>:

- Independent Authority for Public Revenue, Directorate-General
- General Chemical State Laboratory - GCSL (Directorate of Energy, Industrial and Chemical Products); and all the regional chemical services.

Greece has fully implemented both the REACH and the CLP enforcement strategies<sup>121</sup>, notably:

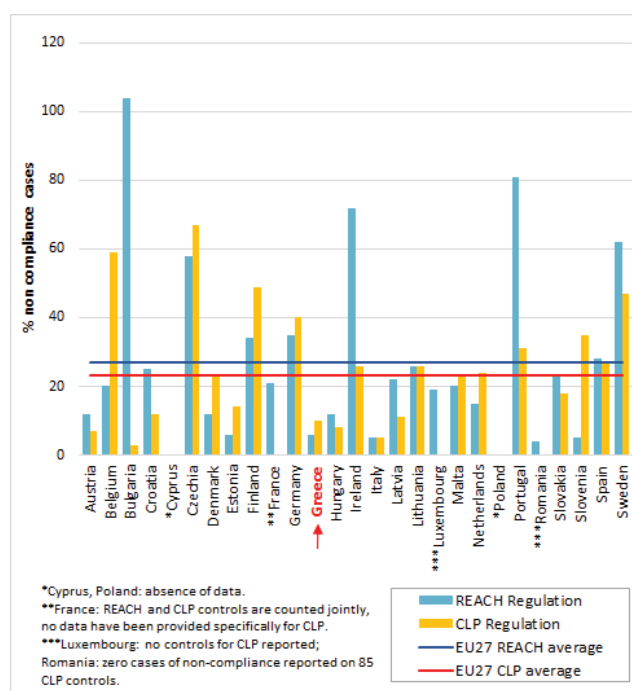
- An annual inspections plan;
- Prioritisation of enforcement based on results of previous controls, annual REF and pilot projects, new obligations or an extension of the obligations that already apply to new products, complaints and national target groups;
- Yearly reporting on enforcement activities.

As a rule, all infringements of REACH are classed as 'serious' or 'very serious' environmental administrative offences. If the infringement is sufficiently serious, the

competent authority may decide to impose further penalties in addition to a fine. That authority may also, where necessary, order the provisional seizure of assets and documents.

In Greece, 70 staff members are allocated to REACH and CLP enforcement<sup>122</sup>. Almost 2 000 REACH controls were carried out in the reporting period (2019). Most were proactive (inspections) rather than reactive/non-routine (i.e. investigations in response to complaints, accidents and referrals)<sup>123</sup>.

**Figure 32: Percentage of non-compliance cases out of the total number of REACH and CLP controls during 2019 per Member State and compared to the EU average**<sup>124</sup>



## 2022 priority action

- Upgrade the implementation and enforcement administrative capacities towards a 'zero tolerance' to non-compliances.

<sup>118</sup> European Commission, [Final report REACH-CLP MS reporting 2020.pdf \(europa.eu\)](#)

<sup>119</sup> [European Commission, REACH and CLP enforcement: EU level enforcement indicators](#)

<sup>120</sup> [Final report REACH-CLP MS reporting 2020.pdf \(europa.eu\)](#), p.68.

<sup>121</sup> [Final report REACH-CLP MS reporting 2020.pdf \(europa.eu\)](#), p.76.

<sup>122</sup> European Commission, [Final report REACH-CLP MS reporting 2020.pdf \(europa.eu\)](#), p. 74.

<sup>123</sup> [Final report REACH-CLP MS reporting 2020.pdf \(europa.eu\)](#), p. 87-88

<sup>124</sup> European Commission, [Final report on the operation of REACH and CLP](#), pp.87-88, 2022.

## 4. Climate action

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

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

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

EU climate legislation incentivises emissions reductions from power generation, industry, transport, the maritime sector and fluorinated gases (F-gases) used in products.

For road transport, EU legislation requires the GHG intensity of vehicle fuels to be cut by 6% by 2020 compared to 2010<sup>125</sup> and sets binding GHG emission standards for different vehicle categories<sup>126</sup>.

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 GHG 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<sup>127</sup> as the European 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.

<sup>125</sup> 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.

<sup>126</sup> Regulation (EU) 2019/631

<sup>127</sup> Article 29 of Regulation (EU) 2018/1999

### Key national climate policies and strategies

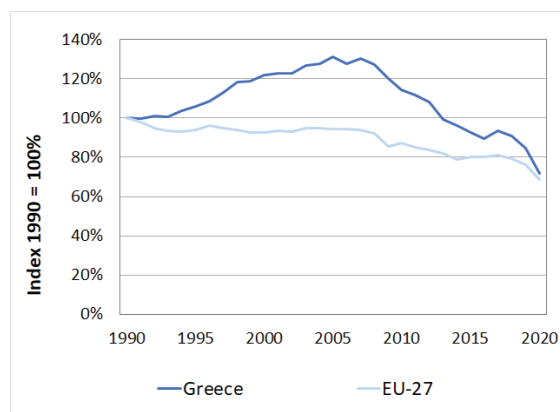
Greece has an integrated national energy and climate plan (NECP) for 2021-2030, which builds on other energy and climate plans and is consistent with the long-term strategy for 2050. The overall goal of the government's strategy is the transition towards climate neutrality by 2050 in a sustainable, fair, and cost-efficient manner.

Under its Recovery and Resilience Plan (RRP), Greece allocates 37.5 % of the budget to climate objectives and outlines crucial reforms and investments to further the transition to a more sustainable, low-carbon and climate-resilient economy. It covers a number of areas, including clean energy, building and renovating, sustainable mobility, resilient infrastructure and sustainable agriculture.

Greece adopted its national adaptation strategy in 2016. The 13 Regional adaptation action plans have been drafted and are expected to be adopted by the regional councils in 2022. The EU-funded integrated project LIFE-IP AdaptInGR (2019-2026) supports the implementation of the strategy and action plans through activities to enhance climate data, build capacity, facilitate sectoral mainstreaming, improve monitoring and raise awareness ([www.adaptivegreece.gr](http://www.adaptivegreece.gr)).

Between 1990 and 2020, GHG emissions decreased by 28% in Greece.

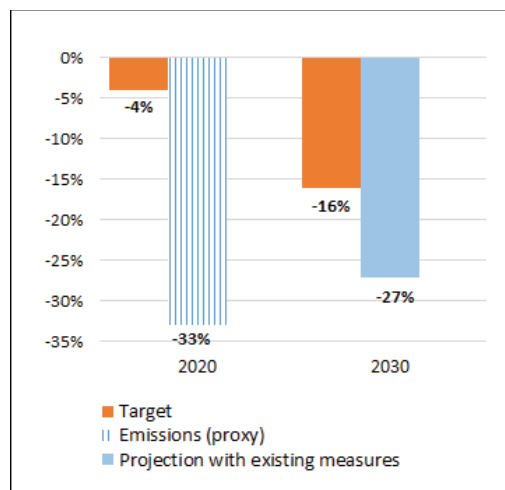
**Figure 33: Total GHG emissions (incl. international aviation) in Greece, 1990-2020**



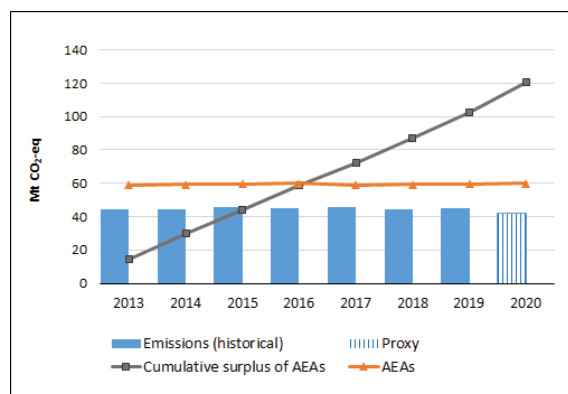
## Effort sharing target

For emissions not covered by the EU's emissions trading scheme (ETS), Member States have binding national targets under the Effort Sharing legislation<sup>128</sup>. The country is estimated to largely overachieve its current 2030 target. Under EU legislation, Greece has a target to reduce GHG emissions in the non-ETS sectors (buildings, road and domestic maritime transport, agriculture, waste and small industries) by 4% by 2020 and 16% 2030, compared to 2005. The country's non-ETS emissions in 2019 were much lower than its 2020 target. In its NECP, Greece intends to exceed its current non-ETS target for 2030 of -16%.

**Figure 34: Emissions and targets under the Effort Sharing Decision/ Effort Sharing Regulation in Greece, 2020 and 2030 as percentage change from 2005**



**Figure 35: Emissions, annual emission allocations (AEAs) and accumulated surplus/ deficit of AEAs under the Effort Sharing Decision in Greece, 2013-2020**



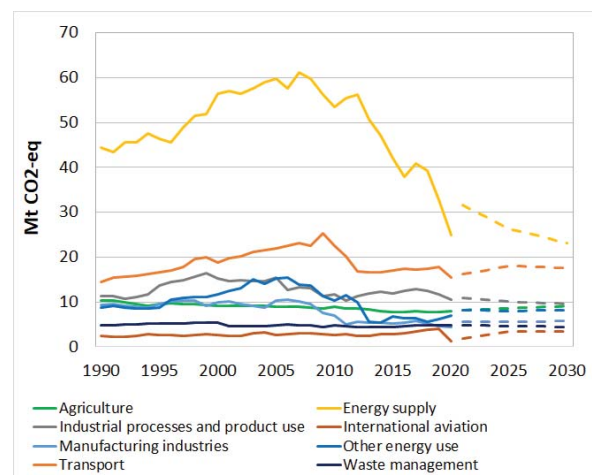
<sup>128</sup> Regulation (EU) 2018/842

## Key sectoral developments

In **road transport**, the GHG intensity of vehicle fuels in Greece decreased by 3.5% between 2010 and 2019. The country needs to act swiftly to meet the current EU-wide reduction target by 6%. There are several types of action that Member States can take in this regard, for example: (i) further expanding the use of electricity in road transport; (ii) supporting the use of biofuels, in particular advanced biofuels; (iii) incentivising the development and deployment of renewable fuels of non-biological origin; and (iv) reducing upstream emissions before refining processes.

Road transport accounted for 17% of Greece's total GHG emissions in 2019. Emissions have decreased by 20% compared to 2005.

**Figure 36: GHG emissions by sector in Greece<sup>129</sup> – historical emissions 1990-2020, projections 2021-2030<sup>130</sup>**



To reduce emissions from **buildings**, Greece has set a target to renovate 3% of the total floor area of public buildings per year and to upgrade 40 000 homes per year by 2030 (equal to 12-15% of total housing stock by 2030). According to Greece's long term renovation strategy, final energy demand in buildings will be reduced by 8% compared to 2015 levels through targeted policy measures.

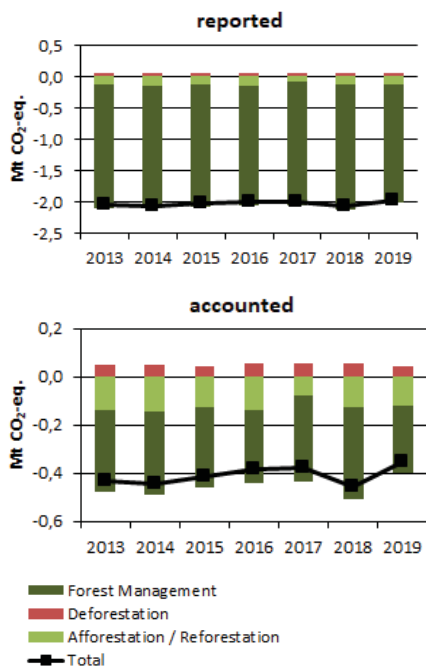
In the land use, land use change and forestry (LULUCF) sector, Greece projects a further decrease of net removals by 2030. Reported quantities

<sup>129</sup> 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.

<sup>130</sup> European Environmental Agency, [Total GHG trends and projections](#).

under the Kyoto Protocol for the LULUCF sector in Greece show net removals of, on average, -2.0 Mt CO<sub>2</sub>-eq for 2013-2019. In this regard, Greece contributes with 0.6% to the annual average sink of -344.9 Mt CO<sub>2</sub>-eq of the EU-27. Accounting for the same period depicts net credits of, on average, -0.4 Mt CO<sub>2</sub>-eq, which corresponds to 0.4% of the EU-27 accounted sink of -115.0 Mt CO<sub>2</sub>-eq. Reported net removals are nearly unchanged over the 7-year period, but accounted net credits show a more accentuated pattern with an increase in 2018.

**Figure 37: Reported and accounted emissions and removals from LULUCF in Greece<sup>131</sup>**



### Use of revenues from the auctioning of EU ETS allowances.

The total revenues from the auctioning of emission allowances under the EU ETS in 2012-2021 came to nearly EUR 3.4 billion. In Greece, revenues are earmarked and fully spent on domestic climate change and energy projects.

### 2022 priority actions

- Increase renewable energy. There is room for Greece to further exploit its renewable energy potential, resulting in a lower carbon intensity, resource diversification (including green

hydrogen production). The Reliance on heavy-polluting lignite-fired power plants and natural gas remains an issue in Greece.

- Enhance sustainable transport
- Energy efficiency remains a key issue, with a modest level of ambition for final energy consumption and a low level of ambition for primary energy consumption.

<sup>131</sup> 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 RRF) and the "do no significant harm" (DNSH) principle which runs across the EU budget. The renewed commitments made at the COP 26 (Glasgow, Oct.-Nov. 2021) and the Biodiversity Convention (COP15, April-May 2022) will also be reflected in the EU budget<sup>132</sup>.

#### Overall environmental investment gaps (EU-27)

The EU's investment needs for the green transition cover a range of interlinked areas. The additional investment needs over the baselines (i.e. the gap between what is needed and what is forecast to be invested if no additional action is taken) for climate, energy and transport were estimated in 2021 at EUR 390 billion a year (EU27) with a further EUR 130 billion a year to deliver the EU's core environmental objectives<sup>133</sup>. Those investment needs reflect the implementation objectives to 2020 and to 2030 (except for climate adaptation, the costs of which are expected to last over a longer time horizon).

A preliminary update of the EU's core environmental investment gap is provided in Table 1<sup>134</sup>. Almost 40% of the environmental investment needs relate to dealing with pollution, which accounts for nearly two-thirds of the total gap if combined with water management. The investment gap in circular economy and waste is estimated to be between EUR 13-28 billion a year, depending on levels of circularity implemented. The annual biodiversity financing gap is estimated at around EUR 20 billion.

**Table 1: Estimated breakdown of the EU27's environmental investment gaps, by environmental objective, 2021-2030 (per year)<sup>135</sup>**

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 <sup>136</sup>	21.5	20%
R & D & I and other	6.2	6%
<b>Total</b>	<b>110.1</b>	<b>100%</b>

#### Environmental investment needs in Greece

Completing and improving waste and wastewater management infrastructure is considered the top priority for environmental investment in Greece. This is followed by investments to comply with the Nature Directives and to monitor and mitigate air pollution. Furthermore, the following environmental investment needs have been identified by sector:

#### *Pollution prevention & control*

The EU's first Clean Air Outlook<sup>137</sup> under the clean air programme estimated that the total air pollution control costs for Greece to reach the NECD emission reduction requirements<sup>138</sup> by 2030 amount to EUR 1 338 million

<sup>132</sup> [The Convention on Biological Diversity \(cbd.int\)](#); [Post-2020 Global Biodiversity Framework | IUCN](#)

<sup>133</sup> [SWD\(2021\)621](#), accompanying proposal COM(2021)557 to amend the REDII Directive (EU) 2018/2001.

<sup>134</sup> With decreases due to Brexit and some reconciliation among the 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.

<sup>135</sup> 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.

<sup>136</sup> 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). 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.

<sup>137</sup> International Institute for Applied Systems Analysis (IIASA), [Progress towards the achievement of the EU's air quality and emissions objectives](#), 2018.

<sup>138</sup> Covering the reductions of and the emission ceilings for 5 atmospheric pollutants, SO<sub>x</sub>, NO<sub>x</sub>, PM<sub>2.5</sub>, NH<sub>3</sub> and VOC by 2030, compared to 2005. Source: Progress towards the achievement of the

per year, including, EUR 926 million a year for capital investment (assuming the achievement the 2030 climate and energy targets).

The second EU's Clean Air Outlook<sup>139</sup> suggests that the EU would largely achieve the reductions that correspond to the obligations under the NEC Directive for 2030 if: i) all relevant legislation adopted up to 2018 was implemented (including all air pollution targets and the 2030 climate and energy targets set in 2018); ii) and Member States also implemented the measures announced in their national air pollution control programmes. The only exception is for ammonia for 15 Member States, excluding Greece.

### Water management

According to the OECD study 'Financing a Water Secure Future' (2022)<sup>140</sup>, Greece relies mainly on conventional resources for its water supply (e.g. groundwater). A small fraction (2%) of its total drinking water supply comes from desalination. Projections show that Greece could face among the highest potential health risks due to non-safe drinking water in the EU by 2050. Also, leakage within the distribution system is substantial.

Freshwater shortage and sea level rise are the greatest climate change-related risks faced by the country. Major drought episodes are projected to become more frequent and severe, with particularly intense summer droughts. Greece faces challenges in financing future investment needs for water supply and sanitation as well as flood protection, particularly for areas where EU funding is not available<sup>141</sup>. Up to 2030, the cumulative additional investment needed for Greece is estimated at EUR 1.7 billion (around 170 million per year) over baselines, of which around 90% relates to wastewater<sup>142</sup>. Moreover, the recent (6<sup>th</sup>) Water Framework Directive- and Floods Directive Implementation Report<sup>143</sup> and the financial - economic study<sup>144</sup> accompanying it, are also a relevant source of information in this domain.

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EU's air quality and emissions objectives, IIASA 2018. (page 29). Requirements are based on [Directive \(EU\) 2016/2284](#).

<sup>139</sup> [COM\(2021\) 3 final](#). International Institute for Applied Systems Analysis (IIASA), Support to the development of the Second Clean Air Outlook, 2020 and [Annex](#).

<sup>140</sup> OECD, [Financing a Water Secure Future](#), 2022.

<sup>141</sup> OECD, [Financing a Water Secure Future](#), 2022.

<sup>142</sup> OECD, [Greece- Country fact sheet- Financing Water Supply, Sanitation and Flood Protection](#).

<sup>143</sup> [WFD and FD Implementation Reports](#) – DG Environment – European Commission.

<sup>144</sup> 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.

### Waste & circular economy

According to a Commission study<sup>145</sup>, to meet the recycling targets for municipal waste and packaging waste, Greece needs to invest an additional EUR 385 million (around EUR 55 million per year) in 2021-2027 on collection, biowaste treatment, recycling reprocessors, waste sorting facilities and waste registry digitalisation. Biowaste treatment facility replacement costs (EUR 9.4 million in 2021-2027 or EUR 1.3 million per year) are included in this amount, though it excludes the investment necessary for other key waste streams (plastics, textile, furniture) and to increase circularity and waste prevention across the economy.

### Biodiversity & ecosystems

The recently submitted prioritised action framework (PAF) for Greece shows that nature protection costs (including Natura 2000) in 2021-2027 amount to EUR 1 039.5 million. This represents an annual cost of about EUR 148.5 million, of which EUR 24.7 million are one-off costs<sup>146</sup>. This excludes additional costs to implement the biodiversity strategy for 2030, including on increased protection and restoration.

The main conservation priorities are to: (i) improve knowledge at national and local level on the conservation status of species and habitat types; (ii) improve the conservation status of species; (iii) address interactions and conflicts between wildlife and human activities; (iv) mitigate the effects of climate change on protected species, habitats and areas; (v) create green infrastructure; (vi) conserve genetic resources; (vii) address the effects of invasive alien species with an emphasis on the marine environment and habitat species; and (viii) mitigate the effects of large infrastructure (e.g. wind farms, hydrocarbon extraction research, etc.) on Natura 2000 sites and on community species / habitat types of interest.

### EU environmental funding 2014-2020

The multiannual financial framework (MFF) for 2014-2020 allocated almost EUR 960 billion (in commitments, 2011 prices)<sup>147</sup> for the EU to spend over this period. The commitment in this 2014-2020 MFF included a 20% climate spending target and funding opportunities for the wider environment, in particular, under the European

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<sup>145</sup> European Commission, [Study on investment needs in the waste sector and on the financing of municipal waste management in Member States](#), 2019.

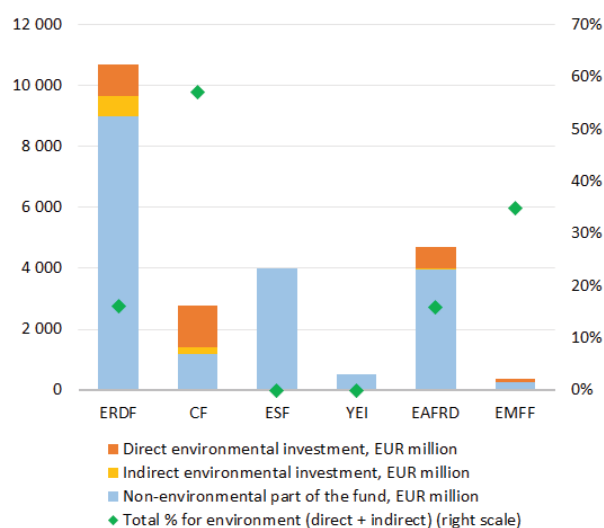
<sup>146</sup> The N2K Group, [Strengthening investments in Natura 2000 and improving synergies with EU funding instruments report to the European Commission](#), 2021.

<sup>147</sup> [Council Regulation \(EU, Euratom\) No 1311/2013](#).

Structural and Investment (ESI) Funds<sup>148</sup>. The 2014-2020 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<sup>149</sup>.

Greece received EUR 23.1 billion from the ESI Funds over 2014-2020 to invest in job creation and a sustainable and healthy European economy and environment. The planned direct environmental investment amounted to EUR 3.3 billion with a further EUR 896.4 million identified as indirect environmental investment value, totalling to EUR 4.2 billion. Figure 39 shows an overview of (planned) individual ESI Funds earmarked for Greece (EU amounts, without national amounts).

**Figure 38: ESI Funds allocated to Greece, including environmental investments, 2014-2020**<sup>150</sup>



<sup>148</sup> The European Structural and Investment (ESI) Funds include the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF) with the Youth Employment Initiative (YEI), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF).

<sup>149</sup> Regulation (EU) 2020/2221.

<sup>150</sup> European Commission, DG Environment - Data analysis, DG Environment analysis based on ESI Funds Open Data Portal (cohesiondata.ec.europa.eu), [Integration of environmental concerns in Cohesion Policy Funds \(COWI, 2017\)](#), Regulation (EU) No 1303/2013, Regulation (EU) 2021/1060 and [Implementing Regulation \(EU\) No 215/2014](#). Cut-off date for data: December 2021. Environmental investments here are captured via the combined use of intervention fields and coefficients under the Regulation (EU) No 1303/2013 and Regulation (EU) 2021/1060 allowing for a more precise identification and valuation of relevant environmental investments. N.B. Indirect environmental investments are valued using the Annex I environmental coefficients of the Regulation (EU) 2021/1060 (as opposed to full value).

**Table 2: Direct and indirect environmental investments under the ESI Funds in Greece, 2014-2020**<sup>151</sup>

Instrument	Allocations for the environment (EUR million)
<b>Under Cohesion policy (ERDF + CF)</b>	<b>3 306.7</b>
<u>Direct environmental investments</u>	<u>2 426.8</u>
water	1 159.7
waste	763.5
air quality	39.9
biodiversity and nature	85.7
land rehabilitation	17.6
climate and risk management	360.3
<u>Indirect environmental investments</u>	<u>879.9</u>
renewable energy	43.1
energy efficiency	220.6
other energy <sup>152</sup>	33.0
sustainable transport	517.0
sustainable tourism	47.3
business development, R&I	19.0
<b>Under EAFRD/rural development</b>	<b>744.5</b>
<u>Direct environmental investments</u>	<u>729.8</u>
water	505.8
climate and risk management	224.1
<u>Indirect environmental investments</u>	<u>14.7</u>
renewable energy	10.7
energy efficiency	4.0
<b>Under EMFF</b>	<b>133.1</b>
<u>Direct environmental investments</u>	<u>131.3</u>
environment protection & resource efficiency	131.3
<u>Indirect environmental investments</u>	<u>1.8</u>
business development, R&I	1.8
<b>Under ESI Funds total</b>	<b>4 184.4</b>
Direct environmental investments	3 288.0
Indirect environmental investments	896.4

Funding for the environment from the ESI Funds has also been supplemented by other EU funding programmes and financing available to all Member States, such as, the LIFE programme, Horizon 2020 and financing from the European Investment Bank (EIB)<sup>153</sup>, that add up to an

<sup>151</sup> European Commission, DG Environment - Data analysis. The values of environmental investments identified here in the specific environmental areas may differ from the tracking values at cohesiondata.ec.europa.eu, e.g. for [clean air](#) or [biodiversity](#) due to two factors: the set of environmental coefficients used and the range of funds assessed. DG Environment's analysis here covered the full range of ESI Funds. See also previous footnote.

<sup>152</sup> 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.

<sup>153</sup> The EIB Group works with the European Commission in implementing several programmes that finance environmental

estimated total environmental financing of EUR 4.7 billion for Greece in 2014-2020.

The LIFE programme<sup>154</sup> is dedicated to environmental and climate objectives, financing the demonstration and roll-out of green solutions. In 2014-2020, Greece received EU support for 26 LIFE projects (for nature and environment) for an amount of EUR 53.6 million (out of 1 028 EU27 LIFE projects with the total EU contribution of EUR 1.74 billion)<sup>155</sup>.

In 2014-2020, Horizon 2020 allocated about EUR 74.3 million to Greece (notably, for circular economy, climate action, earth observation, water, and natural resources and ecosystems projects) about 4.4% of Greece's total allocation<sup>156</sup>. From the European Fund for Strategic Investments (EFSI), none of Greece's total allocation (EUR 1.8 billion)<sup>157</sup> was spent on environmental projects. Greece received EUR 343.2 million from EIB for direct environmental investments, specifically, for water and sewerage and waste, out of the total EIB loans for Greece (EUR 12.7 billion)<sup>158</sup>. The country ranks 7th in the EU in terms of total EIB lending.

In 2020, the EIB provided EUR 24.2 billion in funding across Europe to fight climate change at EU level (corresponding to 37% of its total financing) and EUR 1.8 billion for the environment (representing 3% of its financing)<sup>159</sup>.

## EU environmental funding 2021-2027

The 2020 European Green Deal investment plan calls for EUR 1 trillion in green investments (public and private) to be made across the EU by 2030. The 2021-2027 MFF and the NextGenerationEU (NGEU) 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.<sup>160</sup> Following the EU Green Deal's<sup>161</sup> pledge to 'do no harm' pledge and the Interinstitutional Agreement on the 2021-

implementation: InvestEU, the successor of EFSI, Pillar II and III of the Just Transition Mechanism. The EIB Group is a key implementing partner for InvestEU, managing 75% of the overall budgetary capacity of the mandate.

<sup>154</sup> European Commission, [LIFE Programme](#).

<sup>155</sup> Source: [CINEA](#)

<sup>156</sup> Source: EASME, <https://sc5.easme-web.eu/>.

<sup>157</sup> Approved and signed EFSI financing - EIB, 2015-2020: Source: <https://www.eib.org/en/products/mandates-partnerships/efsi/index.htm>.

<sup>158</sup> EIB loans in EU countries in 2014-2020. Source: EIB Open Data Portal: <https://www.eib.org/en/infocentre/eib-open-data.htm>

<sup>159</sup> [EIB 2021 Activity Report](#).

<sup>160</sup> European Commission, [2021-2027 long-term EU budget & NextGenerationEU](#).

<sup>161</sup> [COM/2019/640 final](#).

2027 MFF<sup>162</sup>, 30% of the EU budget in 2021-2027 will support climate efforts, while biodiversity will receive 7.5% as of 2024 and 10% as of 2026 of the MFF, that requires increased programming of financial resources for biodiversity, specifically under the 2021-2027 Cohesion policy and the 2023-2027 CAP to reach those targets.

Sustainable finance significantly increases transparency on environmental sustainability (a goal promoted by the EU Taxonomy)<sup>163</sup>. It also strengthens non-financial reporting requirements and facilitates the issuance of green bonds (by developing the EU Green Bond Standard<sup>164</sup>). Reinforced by the renewed sustainable finance strategy (2020)<sup>165</sup>, sustainable finance will increase investment flows to climate and the environment. The new strategy on adaptation to climate change<sup>166</sup> can help close the insurance protection gap, which currently leaves many risks from climate-related events uninsured<sup>167</sup>. The EIB will align 50% of its lending for climate and environmental objectives by 2025<sup>168</sup> with an EUR 250 billion contribution to the Green Deal investment plan by 2027.

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

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

Instrument	Country funding allocation (Million EUR)
<b>Cohesion policy</b>	<b>Total: 20 448.2<sup>169</sup></b>
ERDF	11 451.7
CF	3 023.4 <sup>170</sup>
ESF+	5 844.8

<sup>162</sup> [Interinstitutional Agreement, OJ L 433I](#).

<sup>163</sup> [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en)

<sup>164</sup> [EU Green Bond Standard](#) - 2021/0191 (COD).

<sup>165</sup> COM (2021) 390 Final - European Commission, Strategy for Financing the Transition to a Sustainable Economy.

<sup>166</sup> [COM\(2021\) 82 final](#).

<sup>167</sup> The strategy would support improved insurance gap coverage including through the natural catastrophe markets as reflected with the EIOPA (the Association for European Insurance and Occupational Pension Authorities) dashboard on insurance protection gap for natural catastrophes. See: [The pilot dashboard on insurance protection gap for natural catastrophes | Eiopa \(europa.eu\)](#).

<sup>168</sup> EIB Climate Bank Roadmap 2021-2025, November 2020

<sup>169</sup> European Commission, [2021-2027 Cohesion policy EU budget allocations](#).

<sup>170</sup> The transfer to the Connecting Europe Facility (Transport) is not included.

ETC (ERDF)	128.3 <sup>171</sup>
Just Transition Fund	830.2 <sup>172</sup>
EAFRD/rural development under CAP Strategic Plans 2023-2027 <sup>173</sup>	2 784.8 <sup>174</sup>
European Maritime, Fisheries and Aquaculture Fund (EMFAF)	375.0 <sup>175</sup>
Recovery and Resilience Facility (RRF) 2021 – 2026 <sup>176</sup>	17 769.9 (grants) 12 727.5 (loans) <sup>177</sup>

In Greece, the programming for most EU funds (cohesion policy funds, EAFRD and EMFAF) is ongoing. However, negotiations have been concluded under the RRF.

Greece's RRP sets out measures for a strong recovery and preparing Greece for the future. The reforms and investments outlined in the plan will help Greece become more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions. To this end, the RRP sets out 106 investment measures and 68 reforms, which will be supported by EUR 17.77 billion in grants and EUR 12.73 billion in loans. 37.5% of the plan will support climate objectives. The RRP supports the green transition through investments of EUR 1.3 billion in the energy-efficient renovation of more than 100,000 residences, including low-income households. On green and sustainable transport, the RRP envisages more than 8 000 electric charging points and 220 green urban transport buses in Athens and Thessaloniki, a major investment in railways and a thorough reform of the transport sector. Investments of more than EUR 600 million in reforestation, biodiversity, flood mitigation and irrigation network upgrades aim to support environmental protection and are complemented by a waste

<sup>171</sup> Interreg initial allocations per MS including ETC transnational and ETC cross-border cooperation.

<sup>172</sup> European Commission, [2021-2027 Cohesion policy EU budget allocations](#).

<sup>173</sup> European Commission, [CAP strategic plans](#).

<sup>174</sup> [Regulation \(EU\) 2021/2115](#), Annex XI.

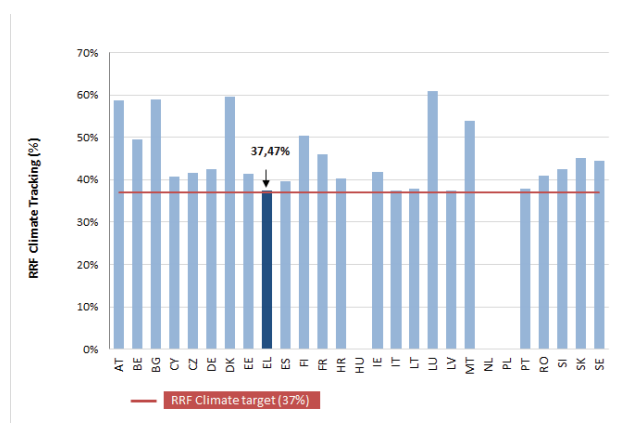
<sup>175</sup> [Regulation \(EU\) 2021/1139](#), Annex V.

<sup>176</sup> The actual reforms and investments under the RRF have to be implemented by 31 December 2026.

<sup>177</sup> [Council Implementing Decision, FIN 514](#).

management reform to promote sustainable landfilling and recycling and improve governance<sup>178</sup>.

**Figure 39: Climate expenditure in RRP, 2021-2026<sup>179</sup>**



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

In addition to the EU funds earmarked for Greece for 2021-2027, various other EU funding programmes are open to all Member States, for example: the LIFE programme<sup>180</sup> (EUR 5.4 billion); Horizon Europe (EUR 95.5 billion)<sup>181</sup>; the Connecting Europe Facility<sup>182</sup> (EUR 33.7 billion)<sup>183</sup>; and the InvestEU<sup>184</sup>. These instruments will also support the green transition, including research and innovation activities for environmental protection (Horizon Europe)<sup>185</sup>, clean transport and energy (the

<sup>178</sup> European Commission, [Greece recovery and resilience plan](#).

<sup>179</sup> European Commission. [The contributions to climate objectives have been calculated using Annex VI of the RRF Regulation \(EU\) 2021/241](#).

<sup>180</sup> European Commission, [LIFE Programme](#).

<sup>181</sup> European Commission, [Multiannual financial framework 2021-2027 \(in commitments\) - Current prices](#).

<sup>182</sup> 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's Member States.

<sup>183</sup> [Regulation \(EU\) 2021/1153](#).

<sup>184</sup> 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 the investment of financial partners such as the European Investment Bank (EIB) Group and others.

<sup>185</sup> European Commission, [Horizon Europe](#).

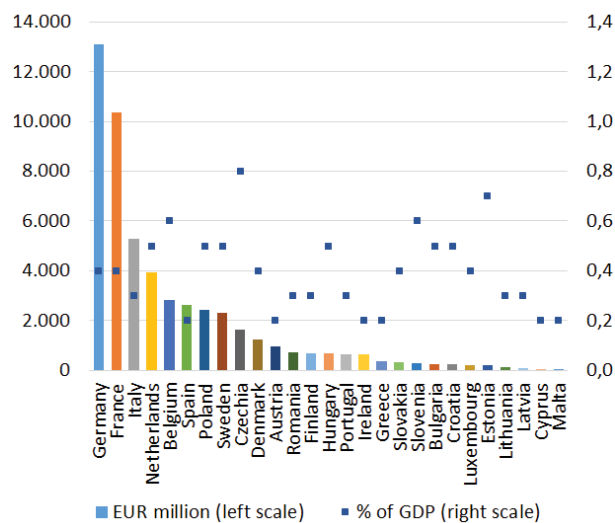
Connecting Europe Facility)<sup>186</sup> and sustainable infrastructure (InvestEU)<sup>187</sup>.

## National environmental protection expenditure

Total national expenditure on **environmental protection** (including all relevant current and capital expenditure)<sup>188</sup> in the EU27 was EUR 272.6 billion in 2020, representing 2% of the Union's GDP. This percentage has remained quite stable over time. Although the largest absolute amounts of expenditure are concentrated in a few countries, most countries spend 1-2% of their GDP on environmental protection, including Greece (1.2%).

Of this spending, capital expenditure (Capex) 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 the EU27 GDP. Greece invested 0.2% of GDP on environmental protection, in line with most other Member States (0.2-0.5% of their GDP). In 2014-2020, this amounted to around EUR 3.48 billion in environmental investment in (EU27 total: EUR 376 billion).

**Figure 40: Direct and indirect environmental protection investments in EU27 (EUR million and % of GDP), 2018<sup>189</sup>**



<sup>186</sup> European Commission, [Connecting Europe Facility](#).

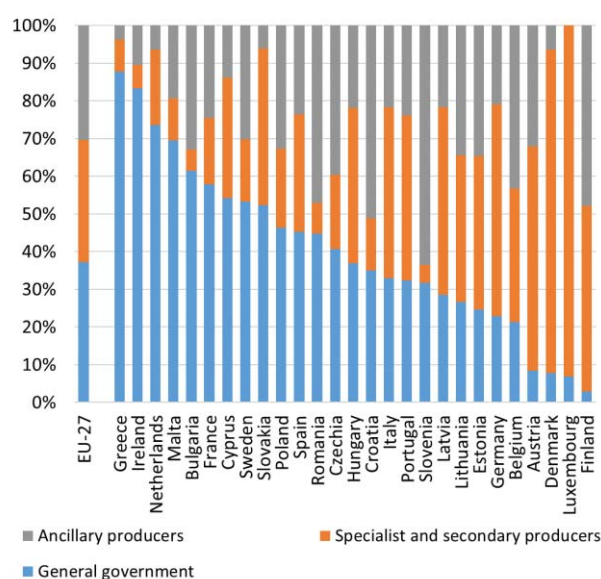
<sup>187</sup> European Union, [InvestEU](#).

<sup>188</sup> At economy level, including final consumption, intermediate consumption and capital expenditure of households, corporations and governments related to environmental protection goods and services. It excludes EU funds, while may include some international expenditure beyond domestic. Data source: Environmental Protection Expenditure Accounts (EPEA), Eurostat. EPEA accounts are based on the [CEPA 2000 classification](#), excluding climate, energy and circular economy.

<sup>189</sup> Eurostat, [Environmental Protection Expenditure Account](#), 2021.

By **institutional sector**, around 87.8% of Greece's environmental protection investments (capital expenditure) came from the general government, 8.5% from specialist producers (of environmental protection services, e.g. waste and water companies) and only 3.7% from industry (businesses) whose environmental activities are usually ancillary to their core activities. At EU level, in 2018, 37.2% came from governments, 32.5% from specialist producers and 30.3% from industry (business).

**Figure 41: Environmental protection investments (Capex) in EU27 by institutional sector (Total economy = 100%), 2018<sup>190</sup>**



A breakdown of investment by environmental topic is only available at institutional sector level (rather than at economy level), due to different reporting patterns (see [Annex 1](#)). At general government level in Greece, 71% of environmental protection investments were for waste management and 29% for wastewater. The country's specialist producers mainly focused on waste management (84%), with a further 8% spent on wastewater and 8% on water and soil protection. The business sector's environmental investments were for: wastewater (35%), waste management (20%), air protection (10%), while a significant share (35%) was not specifically classified.

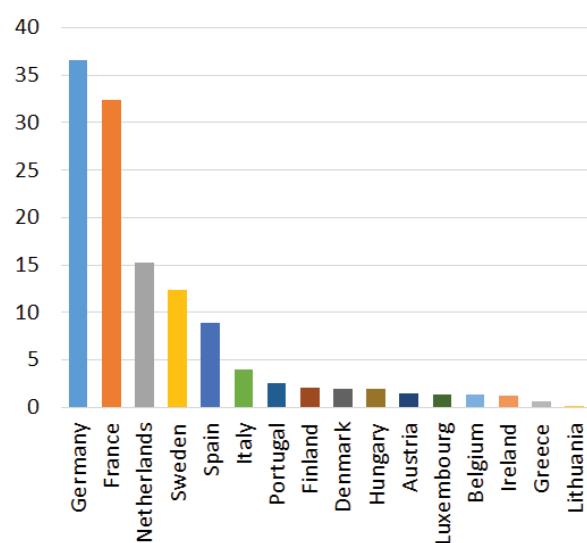
The total annual European green bond issuance<sup>191</sup> amounted to USD 156 billion (EUR 137 billion<sup>192</sup>) in 2020,

<sup>190</sup> Eurostat, [Environmental Protection Expenditure Accounts \(env\\_epe\)](#).

<sup>191</sup> 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

up from USD 117 billion (EUR 105 billion) in 2019 (these figures include some non-EU European countries). For EU27, the 2020 green bond issuance came to EUR 124 billion. In 2014-2020, 83% of the green bonds issued by European countries went towards energy, buildings or transport objectives, 8% supported water and waste, and 6% supported land use – with links to ecosystem conservation & restoration, as the Climate Bonds Taxonomy is broadly similar to the EU Taxonomy<sup>193</sup>. Greece contributed to the EU27's total 2020 green bond issuance with a value of EUR 582.6 million.

**Figure 42: Annual EU green bond issuance in 2020 (EUR billion)**<sup>194</sup>



## Green budget tools

### Green taxation and tax reform

Greece's revenue from environmental taxes amounted to EUR 6 226 million in 2020, accounting for 3.77% of GDP (above the EU average of 2.24%), as shown in Figure 44. Of this amount, energy taxation accounted for the highest share, 77.5%, compared with 22.4% for transport and less than 0.1% for pollution/resources tax.

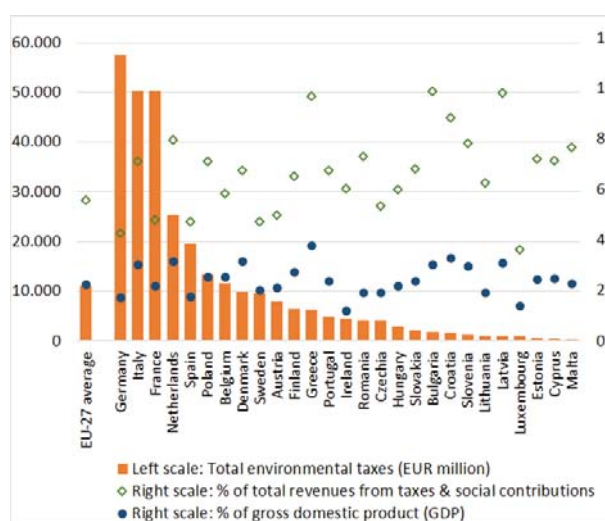
green bond was issued in 2007 with the AAA-rated issuance from multilateral institutions, the European Investment Bank (EIB) and the World Bank.

<sup>192</sup> At Eurostat's annual average EUR/USD exchange rates.

<sup>193</sup> Interactive Data Platform at [www.climatebonds.net](https://www.climatebonds.net). Further information on Climate Bonds Taxonomy: <https://www.climatebonds.net/standard/taxonomy>

<sup>194</sup> [Climate Bonds Initiative](#), 2022.

**Figure 43: Environmental taxes in the EU27, 2020**<sup>195</sup>



The 2019 European Green Deal underlines that well-designed tax reforms can boost economic growth and resilience, foster a fairer society and a just transition. 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 for a shift in the tax burden from labour to pollution, while simultaneously taking account of social considerations<sup>196</sup>. The Green Deal promotes the 'polluter pays principle'<sup>197</sup>, which stipulates that polluters should bear the cost of measures to prevent, control and remedy pollution. The polluter-pays principle is facilitated by the European Commission's Technical Support Instrument (TSI) project<sup>198</sup> on greening taxes.

According to a Commission's study on Green taxation and other economic instruments (2021) Greece could introduce a landfill tax, a 'pay-as-you-throw' scheme and a water consumption charge to further address particular areas of environmental concern<sup>199</sup>. After several delays, Greece reintroduced a landfill tax but it has not yet been applied<sup>200</sup>. Greece also recently introduced a "resource cost" for water, setting different prices for different types of water use and water sources.

<sup>195</sup> Eurostat, Environmental taxes accounts (env\_eta).

<sup>196</sup> COM (2019/640 final), p.17.

<sup>197</sup> 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".

<sup>198</sup> European Commission, [Greening taxes- applying polluter pays principle in practice, green budgeting TSI participation](#).

<sup>199</sup> European Commission, [Green taxation and other economic instruments](#), 2021.

<sup>200</sup> European Commission, [Ensuring that polluters pay Greece](#).

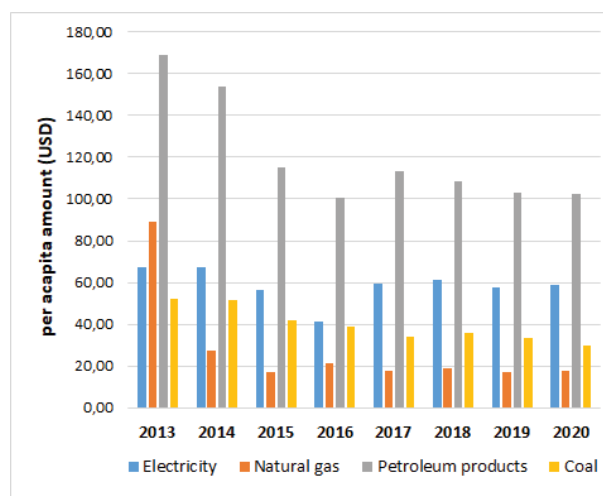
## Environmentally-harmful subsidies

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

Fossil-fuel subsidies are costly for public budgets and undermine Green Deal objectives (on climate neutrality, air quality, zero pollution and health impacts etc.). They also often de-incentivise investment in green technologies, and do not contribute to levelling the playing field. Fossil fuel subsidies have varied by around EUR 55 billion in the EU since 2015. They rose by 4% in 2015-2019, although some countries (e.g. Latvia, Lithuania Sweden, Greece and Ireland) managed to decrease subsidies for fossil fuels. At EU level, subsidies on petroleum products, in sectors such as transport and agriculture, continued to increase in 2015-2019, whereas subsidies on coal and lignite decreased, largely owing 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 (EU average: 0.4%). In Greece, total fossil fuel subsidies amounted to EUR 1.6 billion in 2019, representing 0.85 % of 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<sup>201</sup>. Greece allocates more than the EU average to fossil-fuel subsidies, which are higher than its renewable-energy subsidies<sup>202</sup>.

**Figure 44: Trends in natural gas, petroleum products, electricity and coal subsidies in Greece<sup>203</sup>**



% GDP	2013	2014	2015	2016	2017	2018	2019	2020
Electricity	0,30	0,30	0,31	0,23	0,31	0,30	0,29	0,32
Natural gas	0,40	0,13	0,09	0,12	0,09	0,09	0,09	0,10
Petroleum products	0,76	0,70	0,63	0,55	0,60	0,54	0,52	0,56
Coal	0,23	0,23	0,23	0,22	0,18	0,18	0,17	0,16

## Current green budgeting practices

'Green budgeting' encompasses various climate and environmental tagging and tracking practices in budgets. Some EU Member states already use certain green budgeting practices<sup>204</sup>. Green budgeting helps identify and track green expenditure and green revenues to increase transparency on the environmental implications of budgetary policies. This is aimed at improving policy coherence and supporting green policies (including climate and environmental objectives)<sup>205</sup>.

The Commission developed EU climate-proofing and sustainability proofing guidance to assess project eligibility and compliance with environmental legislation and criteria<sup>206</sup>. The Commission have also drawn up a

<sup>201</sup> See [table on EU FFS data in 2019](#) which is based on (for info) [COM\(2021\) 950](#) and [Annex](#).

<sup>202</sup> European Court of Auditors, [Energy taxation, carbon pricing and energy subsidies](#), 2022.

<sup>203</sup> OECD, [Fossil Fuel Subsidy Tracker](#).

<sup>204</sup> European Commission, [Green Budgeting Practices in the EU: A First Review](#), 2021, [Green Budgeting in the EU Key insights from the 2021 Commission survey](#) and OECD, Public Governance Directorate, Climate Change and Long-term Fiscal Sustainability, Working Paper, February 2021, [Climate Change and Long-term Fiscal Sustainability \(oecd.org\)](#)

<sup>205</sup> OECD Paris Collaborative on Green Budgeting initiative, 2017.

<sup>206</sup> European Commission, [Technical guidance on sustainability proofing for the InvestEU Fund](#).

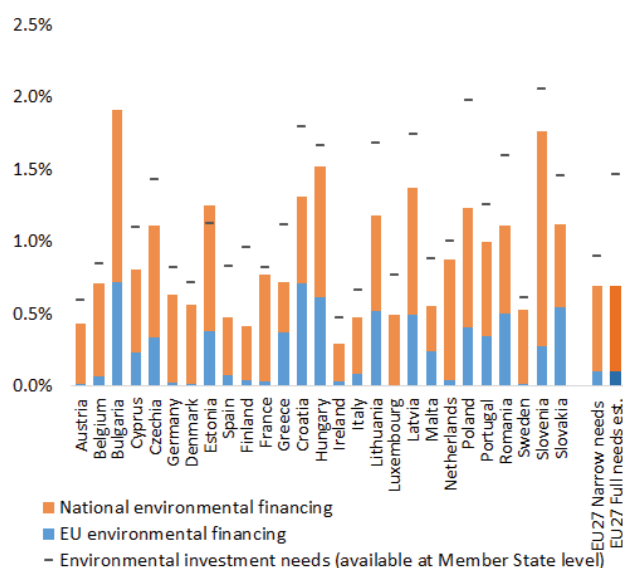


green budgeting reference framework<sup>207</sup> and launched a TSI project on green budgeting in 2021 to help Member States develop national green budgeting frameworks to improve policy coherence and support the green transition. Greece participates in the Commission's green budgeting project, launched in 2021.

## Overall financing compared to the needs

The EU's overall financing for environmental investments is estimated to have been 0.6-0.7% of GDP in 2014-2020, comprising both major EU funds and national financing. This ranged from 0.3% (Ireland) to 1.91% (Bulgaria), depending on the level of environmental challenges in different Member States. In 2021-2027, it is estimated that the EU's environmental investment needs will range between 0.9-1.5% of the projected 2021-2027 GDP, suggesting a potential environmental financing gap of 0.6-0.8% of GDP at EU level, compared to previous financing levels<sup>208</sup>.

**Figure 45: Total environmental financing baseline ('14-20) and estimated needs ('20-30) in the EU27 (% of GDP)<sup>209</sup>**



Greece's environmental financing for investments came to 0.72% of GDP in 2014-2020, relying on both EU- and national sources. In 2021-2027, the country's environmental investment needs are estimated to reach over 1.12% of GDP (with partial information, existing at country level), suggesting an environmental financing gap of at least 0.4% of GDP, likely to be higher when also accounting for needs identified at EU level (e.g. water protection, circularity, biodiversity strategy etc.).

The priority action set out in the 2019 EIR, to provide the adequate funding to tackle the main environmental challenges (e.g. via the mobilisation of investments and the use of EU funds) is rolled over, as Greece made limited progress in this respect.

## 2022 priority actions

- Prepare an environmental financing strategy to maximise opportunities to close environmental implementation gaps, including by increasing environmental taxation and/or private financing for the environment (which latter source is less used, under 20%).
- Tackle the main environmental challenges affecting the country, through adequate funding, including through the mobilisation of investments and the use of EU funds.

<sup>207</sup> European Commission, Green Budgeting Reference Framework, based on the review of the OECD Paris Collaborative on Green Budgeting initiative, 2017.

<sup>208</sup> 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.

<sup>209</sup> Eurostat, [ESI Funds Open Data](#), 2021.

## 6. Environmental governance

### Information, public participation and access to justice

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

- (i) access to information;
- (ii) public participation in decision making;
- (iii) access to justice in environmental matters.

It is of crucial importance to public authorities, the public and businesses that environmental information is shared efficiently and effectively<sup>210</sup>. 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<sup>211</sup>. It includes the right to bring legal challenges ("legal standing")<sup>212</sup>.

#### Environmental information

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

Greece's implementation of the INSPIRE Directive could be better. Its performance has been reviewed based on its 2021 country factsheet<sup>213</sup>. Data identification and documentation has progressed well, and implementation levels have improved. However, more efforts are needed to:

- make the data more widely accessible; and
- improve the conditions for data reuse.

<sup>210</sup> The Aarhus Convention, the Access to Environmental Information Directive (Directive 2003/4/EC) and the INSPIRE Directive, (Directive 2007/2/EC) create a legal basis for the sharing of environmental information between public authorities and with the public. This EIR focuses on the INSPIRE Directive's implementation.

<sup>211</sup> The guarantees are explained in Commission Notice on access to justice in environmental matters, OJL 275, 18.8.2017 and a related Citizen's Guide.

<sup>212</sup> This EIR focuses on the means used 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.

<sup>213</sup> <https://inspire.ec.europa.eu/INSPIRE-in-your-Country/EL>.

Table 4: Country dashboard on the implementation of the INSPIRE Directive, 2016-2020<sup>214</sup>

	2016	2020	Legend
<b>Effective coordination and data sharing</b>			<ul style="list-style-type: none"> <li>■ Implementation is well advanced or (nearly) complete. Outstanding issues are minor and can be addressed easily. Percentage: &gt;89%</li> <li>■ Implementation has started and some or substantial progress has been made, but it is still not close to being complete. Percentage: 31-89%</li> <li>■ Implementation is falling significantly behind. Serious efforts are needed to close the implementation gap. Percentage: &lt;31%</li> </ul>
Ensure effective coordination	■	■	
Data sharing without obstacle	■	■	
<b>INSPIRE performance indicators</b>			
i. Conformity of metadata	■	■	
ii. Conformity of spatial data sets <sup>215</sup>	■	■	
iii. Accessibility of spatial data sets through view and download services	■	■	
iv. Conformity of network services	■	■	

#### Public participation

The Ministry of Environment and Energy maintains a Digital Environmental Register (*Ηλεκτρονικό Περιβαλλοντικό Μητρώο*)<sup>216</sup>, which enables citizens and environmental organisations to monitor the progress of any environmental authorization, including under the EIA Directive, and its results. User registration is required. Public consultation is, in principle, carried out exclusively

<sup>214</sup> INSPIRE [knowledge base](#)

<sup>215</sup> The deadlines for implementation of the spatial data interoperability were in 2016 still in the future: 23/11/2017 for Annex I data and 21/10/2020 for Annex II and III data. It must be also considered that this conformity indicator will in many cases never reach 100% conformity as majority of the countries provide as-is-data sets in addition to the INSPIRE harmonised data sets.

<sup>216</sup> Digital Environmental Register (*Ηλεκτρονικό Περιβαλλοντικό Μητρώο*). Information available at: <https://epm.yper.gr/>.

through this online system. It is not clear if an assessment has been made of how effective the website is in facilitating public participation. In any event, the legislation (article 3 par. 1.1. b of JMD 1649/45/2014) provides an additional action for the competent environmental authority, which consists in informing the relevant Regional Council about the start of the public consultation. The relevant announcement is posted on the ΗΠΜ and is also addressed electronically by the same Regional Council.

For the SEA Directive, the website of the Ministry of Environment and Energy includes consultation (*διαβούλευση*) section, where SEAs for plans or programmes are announced, with an accompanying invitation for interested public to submit their views. Information on where the public can access to the relevant documents is also provided; in some cases, some of the documents may also accompany the announcement of the SEA.

There is still lack of data available on the level of participation in decision-making processes including authorisations linked to the EIA Directive 2011/92/EU and the SEA Directive 2001/42/EC.

### Access to justice

Article 24 of the Constitution (after the 2001 Constitutional revision) underlines that “the protection of the natural and cultural environment is an obligation of the State and everyone's right”. That means that anyone, or any group of people acting together, or an NGO, has the right to appeal before the courts in order to protect the environment by proving a particular legitimate interest regarding their case. The Greek Constitution, after its revision in 2001, gives NGOs the right to legal standing in environmental cases. Concerning NGOs, in most cases the Greek courts have considered that the protection of the environment must be generally described in the statutory objective of the legal entities without being their sole or predominant purpose. There is also a system of regular supervision of regulatory legally binding acts, but it is largely inaccessible to members of the public and NGOs, who can only flag cases to bodies or officials that are entitled to initiate an extraordinary supervision procedure.

There is some information available on access to justice, usually only in Greek, maintained by the government. However, this information needs to be searched for. The official site of the Ministry of Environment provides relevant information and includes hyperlinks to other relevant sites<sup>217</sup>. It provides mostly general information

<sup>217</sup><http://www.ypoka.gr/el-gr/Περιβάλλον/Περιβαλλοντική-Πληροφορία>

on the implementation of the Aarhus Convention in Greece. Additional information, including case-law, can be found on the Council of State's website<sup>218</sup>.

A priority action was addressed to Greece in the 2019 EIR to better inform the public about their access to justice rights. However, there has been limited progress in this regard.

### 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.
- Assess the effectiveness of the Digital Environmental Register in facilitating public participation, and whether accompanying measures to publicise EIA processes would be helpful in raising awareness.
- Collate and publish data on public participation into environmental decision-making.
- Improve access to courts by the public concerned when it comes to challenging administrative or regulatory decisions and omissions also in the planning context, in particular under water, nature and air quality.
- Better inform the public about their access to justice rights, in particular by referring to on judicial and administrative portals to the Commission eJustice fact sheets on access to justice in environmental matters.

### 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<sup>219</sup>. It includes support measures provided by the authorities, such as:

- (i) compliance promotion<sup>220</sup>;
- (ii) the inspections and other checks that they carry out, i.e. compliance monitoring<sup>221</sup>;
- (iii) the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e.

<sup>218</sup>[http://www.adjustice.gr/webcenter/portal/ste/pageste/stepage?\\_ad\\_f.ctrl-state=lsv69fkwg\\_4&\\_afrLoop=7255543756255087#](http://www.adjustice.gr/webcenter/portal/ste/pageste/stepage?_ad_f.ctrl-state=lsv69fkwg_4&_afrLoop=7255543756255087#)

<sup>219</sup> 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.

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

<sup>221</sup> This EIR focuses on inspections of major industrial installations.

enforcement<sup>222</sup>.

Citizen science and complaints enable authorities to focus their efforts better. Environmental liability<sup>223</sup> ensures that the polluter pays to remedy any damage.

### Compliance promotion and monitoring

Online information provided by the Ministry of Environment and Energy and the Ministry of Rural Development and Food, is largely limited to a description of the legal measures in place to implement the Nature Directive and the Nitrates Directive and information on the cross-compliance requirements for common agricultural policy payments. Practical information for farmers and land managers on how to help comply with legal requirements fulfil water and nature objectives, seems to be lacking.

The Ministry of Environment and Energy publishes annual reports on inspections. The latest report was published in 2019<sup>224</sup>, covering activities in 2018. In addition to summary data on the types of inspection, activities carried out during the inspections, and infringements identified, the reports also provide a schedule of inspections to be carried out the following year. However, details and documentation on individual inspections are not made available. The Secretariat of inspectorate of MoEE was disbanded in 2019<sup>225</sup> and as of 2020 has been replaced by the General Directorate of the body of inspectors and auditors of the Ministry of Environment and Energy, subject directly to the Minister, with some coordinating competencies for all environmental inspecting authorities in Greece.

### Complaint handling and citizen science

The Greek Ombudsman<sup>226</sup> (*Συνήγορος του Πολίτη*) enables members of the public to submit complaints on quality of life issues, including the environment. This can include breaches of environmental legislation, degradation of the natural environment, and general deterioration of the quality of life. The Ombudsman's website<sup>227</sup> provides an archive of published texts, which includes conclusions of its investigations, annual reports, special reports on specific issues considered to be of wider interest, mediation summaries and press releases. No specific information on the follow-up of individual

complaints is provided, or feedback to complainants. Moreover, the website of the Ministry of Environment and Energy does not provide a link to the Ombudsman's website. Additionally, statistics indicating the number of incoming complaints and cases/infringements in total are missing<sup>228</sup>.

In late 2020, a complaint Management System (CMS) for environmental complaints was developed and formally adopted by the MoEE. However, it has not been fully implemented yet.

There are a number of active citizen science projects, particularly in the field of biodiversity, organised by the Hellenic Biodiversity Observatory<sup>229</sup>.

### Enforcement

Data on the prosecution of environmental crimes and on the follow-up to inspections and compliance is not available. More specifically, statistics on waste crime cases are collected only by administrative authorities and they include both administrative and criminal cases, but without distinguishing the type of violation (administrative or criminal case). Regarding the judiciary, there are no statistics either on the number of environmental criminal cases or on the results of the criminal proceedings in these cases. Additionally, there is a lack of statistics on the number of cases prosecutors commenced and closed, and where statistics are available, these are not broken down to show the type of the environmental crime cases at the prosecutors' offices or in courts. As to the offences, these are not published as statistics, but the administrative fine is posted on the website of DIAVGEIA (ΔΙΑΥΓΕΙΑ)<sup>230</sup>.

In addition to legislation setting out the respective competences of public bodies on environmental matters, and their duties to provide assistance or information when requested, steps have recently been taken to formalise cooperation. In 2021, the Ministry of Environment and Energy and the Chief of the Hellenic Police signed a Memorandum of Cooperation for the 'Prevention of Environmental Crime with Smart Inspections' project under the LIFE PROWhIBIT programme. A similar Memorandum of Cooperation has been signed between the Ministry and the Director of the Independent Authority for Public Revenue (AADE), in

<sup>222</sup> This EIR focuses on the availability of enforcement data and co-ordination between authorities to tackle environmental crime.

<sup>223</sup> The Environmental Liability Directive (2004/35) provides the framework.

<sup>224</sup> Available at: <https://ypen.gov.gr/ypourgeio/soma-epitheoriton-kai-elegkton/>

<sup>225</sup> Presidential Decree 84/2019, available at: <https://www.kodiko.gr/nomothesia/document/539871/p.d.-84-2019>.

<sup>226</sup> See <https://www.synigoros.gr/?i=quality-of-life.el>

<sup>227</sup> See <https://www.synigoros.gr/?i=quality-of-life.el.qualitykeimena>

<sup>228</sup> Evaluation report on the eighth round of mutual evaluations "The practical implementation and operation of European policies on preventing and combating environmental crime" - Report on Greece.

<sup>229</sup> See <https://www.biodiversitygr.org/blog/category/citizen-science.html>

<sup>230</sup> Evaluation report on the eighth round of mutual evaluations "The practical implementation and operation of European policies on preventing and combating environmental crime" - Report on Greece.

order to combat the illegal cross-border transfer of waste.

### Environmental Liability Directive (ELD)

No information on environmental damages, or mechanisms to encourage reporting on environmental damages could be identified online, and there appears to be no registry or central database on environmental incidents or ELD cases available to the public. Nevertheless, a registry of environmental incidents and ELD cases is maintained by the Ministry of Environment and Energy; data of the registry are made available upon request. The Ministry of Environment and Energy is the leading beneficiary of a LIFE PROFILE project in the framework of which a database for ELD cases is to be developed. On financial security, while the national legislation<sup>231</sup> provides for a joint decision by the Finance and Environment ministries setting out the method for determining amounts of financial security, the relevant decision is still awaited. However, several insurance companies provide cover for ELD liability. Under the LIFE PROFILE project referred above, a methodology for environmental risk assessment will be developed to support the implementation of financial security for ELD.

### 2022 priority actions

- Improve the availability of practical information for farmers and land managers on how to contribute to better implementation of the Nature and the Nitrates Directives.
- Improve information to citizens on opportunities to file complaints about environmental issues or infringements and publish data on the follow-up to such complaints.
- Improve the reporting of action taken against environmental crime.
- Establish a database for ELD cases, and other instances of environmental damage, as well as publishing information on such cases including on sanctions and other financial measures.

### Effectiveness of environmental administrations

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

<sup>231</sup> Presidential Decree 148/2009.

### Administrative capacity and quality

The Ministry of Environment & Energy (MoEE) is responsible for producing a global environmental policy, preparing plans and programmes and monitoring them. The Ministry is also in charge of transposing EU environmental Directives into national law.

At the decentralised level, the regional and municipal authorities have certain environmental competences for their geographical areas. Regional and municipal authorities assure the practical application of various environmental measures such as water quality, waste management and impact assessments. At the central level an environmental inspectorate has been operating since 2004.

Meeting the deadlines and requirements set out in the EU environmental legislation still seems to be an issue of concern. Difficulties can be explained by relatively few (and decreasing in recent years) human resources to deal with the huge body of EU environmental legislation, combined with the bottlenecks created by lengthy and complicated administrative procedures which often involve many actors from various levels of public administration. Under its RRP, Greece is undertaking two promising reforms, aiming to establish regulators in the fields of waste and water management.

The number of open infringement cases is high compared to other Member States and at an advanced stage (i.e. infringement proceedings under Article 260 of the Treaty on the Functioning of the European Union). In general, there are no significant problems on the quality of the transposition of the EU Directives. The problems are generally related to their implementation. The Court of Justice has imposed fines on Greece for non-compliance with EU law provisions in the fields of waste and urban wastewater treatment. Penalty payments remain due as long as the judgments of the Court are not fully executed by the Member State.

Electronic services are available for public consultations and for filing complaints. For example: (i) web platforms used by the special secretariat for water (EGY) of the MoEE during the consultation process for Greece's river basin management plans and the flood risk management plans; (ii) the 'Open Governance' website where citizens can be informed about and participate in public consultations; (iii) the digital environmental registry platform; (iv) the website on approved environmental permits (AEPO); (v) an electronic database used by the Climate Change Directorate of the Ministry of Environment and Energy named "F-GASES & ODS DATABASE" for the monitoring of fluorinated greenhouse gases under Regulation (EU) 517/2014 and substances that deplete the ozone layer under Regulation (EC)

1005/2009; and (vi) the Region of Attica's online platform for submitting complaints.

### Coordination and integration

As mentioned in the 2017 EIR, the transposition of the revised Environmental Impact Assessment (EIA) Directive provides an opportunity for countries to streamline their regulatory framework on environmental assessments. Greece has fully transposed the revised Directive, despite not meeting the deadline of May 2017.

### 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 by granting technical assistance such as the Technical Support Instrument (TSI).

The Commission's TSI supported several environment-related projects in Greece, including a project on land uses under the TSI 2020 and two projects under the TSI 2022: "Greening taxes – applying the polluter pays principle in practice" and "Bridging the climate financing gap with public policy instruments".

### TAIEX EIR Peer to Peer Projects

The TAIEX EIR Peer-to-Peer tool<sup>232</sup> has been launched in 2017 by the Commission to facilitating peer-to-peer learning between environmental authorities. During the reporting period, Greece benefited from two workshops on waste management for Greek cities (2019) and water management in protected areas: Nature Based Solutions (2021), and a study visit on successful bio-waste recycling facilities (2019). Greece also participated in two multicountry workshops on ammonia reducing technology and measures (2021) and on zero pollution (2021).

The Commission encourages the streamlining of environmental assessments to reduce duplication and avoid overlaps in environmental assessments for projects. Moreover, streamlining helps to reduce unnecessary administrative burden and accelerates decision-making, provided it is done without compromising the quality of the environmental assessment procedure. Greece has started streamlining environmental assessments under the EIA Directive, the Habitats Directive and the Industrial Emissions Directive.

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<sup>232</sup> [TAIEX - Environmental Implementation Review - PEER 2 PEER - Environment - European Commission \(europa.eu\)](#).