

Brussels, 4.4.2019 SWD(2019) 138 final

#### COMMISSION STAFF WORKING DOCUMENT

The EU Environmental Implementation Review 2019 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

Environmental Implementation Review 2019: A Europe that protects its citizens and enhances their quality of life

```
{COM(2019) 149 final} - {SWD(2019) 111 final} - {SWD(2019) 112 final} - {SWD(2019) 113 final} - {SWD(2019) 114 final} - {SWD(2019) 115 final} - {SWD(2019) 116 final} - {SWD(2019) 117 final} - {SWD(2019) 118 final} - {SWD(2019) 119 final} - {SWD(2019) 120 final} - {SWD(2019) 121 final} - {SWD(2019) 122 final} - {SWD(2019) 123 final} - {SWD(2019) 124 final} - {SWD(2019) 125 final} - {SWD(2019) 126 final} - {SWD(2019) 127 final} - {SWD(2019) 128 final} - {SWD(2019) 129 final} - {SWD(2019) 130 final} - {SWD(2019) 131 final} - {SWD(2019) 132 final} - {SWD(2019) 136 final} - {SWD(2019) 137 final} - {SWD(2019) 139 final}
```

EN EN

This report has been written by the staff of the Directorate-General for Environment, European Commission. Comments are welcome, please send them to <a href="mailto:ENV-EIR@ec.europa.eu">ENV-EIR@ec.europa.eu</a>
More information on the European Union is available at <a href="http://europa.eu">http://europa.eu</a> .
Photographs: p. 11 — @iStock/Poike; p. 14 — @iStock/SHansche; p. 16 — @iStock/saiko3p; p. 20 — @iStock/marchello74; p. 29 — @ iStock/alexandr6868
For reproduction or use of these photos, permission must be sought directly from the copyright holder.
©European Union, 2019

Reproduction is authorised provided the source is acknowledged.

# **Table of Contents**

EXE	ECUTIVE SUMMARY	3
PAF	RT I: THEMATIC AREAS	4
<u>1.</u>	TURNING THE EU INTO A CIRCULAR, RESOURCE-EFFICIENT, GREEN AND COM	MPETITIVE LOW
_	CARBON ECONOMY	
	Measures towards a circular economy	4
	Waste management	6
	Climate change	8
<u>2.</u>	PROTECTING, CONSERVING AND ENHANCING NATURAL CAPITAL	10
	Nature and biodiversity	10
	Maintaining and restoring ecosystems and their services	11
	Estimating natural capital	11
	Invasive alien species	12
	Soil protection	13
	Marine protection	14
<u>3.</u>	ENSURING CITIZEN'S HEALTH AND QUALITY OF LIFE	15
	Air quality	15
	Industrial emissions	16
	Noise	17
	Water quality and management	18
	<u>Chemicals</u>	19
	Making cities more sustainable	20
<u>PAF</u>	RT II: ENABLING FRAMEWORK: IMPLEMENTATION TOOLS	22
<u>4. G</u>	GREEN TAXATION, GREEN PUBLIC PROCUREMENT, ENVIRONMENTAL FUNDING AND I	NVESTMENTS 22
	Green taxation and environmentally harmful subsidies	22
	Green public procurement	23
	Environmental funding and investments	23
<u>5. S</u>	STRENGTHENING ENVIRONMENTAL GOVERNANCE	27
	Information, public participation and access to justice	27
	Compliance assurance	28
	Effectiveness of environmental administrations.	29
	International agreements	30
	Sustainable development and the implementation of the UN SDGs	31

# **Executive summary**

# Greece and the Environmental Implementation Review (EIR)

In the 2017 EIR, 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; and
- to complete the implementation of the Urban Waste Water Treatment Directive.

Complex administrative structures and procedures in Greece, which can cause significant delays and bottlenecks, are sometimes the main obstacle to implementing environmental legislation.

Following the publication of the 2017 EIR, Greece has not yet organised an EIR national dialogue that would help address the above challenges.

#### Progress on meeting challenges since the 2017 EIR

The 2019 EIR shows that there has been some progress on waste management, as the strategic framework for waste is now in place and the national and regional waste management plans have been adopted. Moreover, the number of illegal landfills that are still operational or in need of rehabilitation has decreased over the years. However, the remaining landfills will be very difficult to close unless new facilities are built. Greece needs to make a major effort to put in place an adequate network of facilities that would effectively manage all the hazardous waste produced in the country. Some progress has been made on the legal and institutional steps necessary to increase waste recycling and expand the extended producer's responsibility (EPR) schemes. However, 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 has significantly extended its marine Natura 2000 network recently. It has adopted legislation to put management bodies in place for all its Natura 2000 sites and has started to

implement a comprehensive LIFE integrated project for nature. These positive steps should be followed up with concrete action on the ground to effectively address the challenges identified in the previous report.

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. These efforts should lead to the necessary infrastructure being quickly put in place, particularly in the agglomerations (i.e. population centres or places of economic activity) covered by an open infringement procedure.

#### **Examples of good practice**

- Concrete steps towards a comprehensive circular economy policy strategy include: (i) a recently adopted national circular economy action plan, which sets out short-term measures and long-term priorities; (ii) a 2017 recycling law that adjusts existing legislation to circular economy principles; and (iii) a circular economy forum that encourages dialogue between relevant stakeholders to encourage business models and innovations that are adapted to a circular economy.
- The local (municipal) waste management plans, which have been incorporated in the regional plans, set the separate collection of bio-waste as a basic goal. Greece has planned for a significant proportion of EU funds to be allocated to waste management measures and infrastructure, particularly integrated waste treatment facilities and source separation schemes.
- Incentives exist to encourage the purchase of cars with lower CO2 emissions and new vehicles purchased in Greece are among the most environmentally friendly in the EU.
- On environmental governance, the Council of State takes a progressive approach to access to justice in environmental matters. In addition, all administrative processes, including environmentrelated ones, have become significantly more transparent thanks to the 'Diavgeia' transparency programme («Clarity»).

# **Part I: Thematic Areas**

# 1. Turning the EU into a circular, resource-efficient, green and competitive low carbon economy

# Measures towards a circular economy

The Circular Economy Action Plan emphasises the need to move towards a life-cycle-driven 'circular' economy, reusing resources as much as possible and bringing residual waste close to zero. This can be facilitated by developing and providing access to innovative financial instruments and funding for eco-innovation.

Following the adoption of the Circular Economy Action Plan in 2015 and the setting up of a related stakeholder platform in 2017, the European Commission adopted a new package of deliverables in January 2018<sup>1</sup>. This included additional initiatives such as: (i) an EU strategy for plastics; (ii) a Communication on how to address the interplay between chemical, product and waste legislation; (iii) a report on critical raw materials; and (iv) a framework to monitor progress towards a circular economy<sup>2</sup>.

The circular (secondary) use of materials in Greece was only 2.4 % in 2014 (EU-28 average 11.4 %). Greece performs below EU-28 average on the number of people employed in the circular economy (1.65 % of total employment in 2016 compared to the EU-28 average of 1.73 %).

In the 2017 Special Eurobarometer on attitudes of EU citizens towards the environment, 91 % of Greek people said they were concerned about the effects of plastic products on the environment (EU-28 average 87 %). 94 % said they were worried about the impact of chemicals (EU-28 average 90 %)<sup>3</sup>. Greek society appears to strongly support circular economy initiatives and environmental protection measures.

Since the 2017 EIR, the status of and policy support for the circular economy grew and concrete steps were taken towards a comprehensive policy strategy.

In April 2018, the Government Council for Economic Policy (KYSOIP) endorsed the national 'action plan on the circular economy' including short-term and long-term

priorities. In addition, Greece will introduce indicators to monitor the impact of the circular transition.

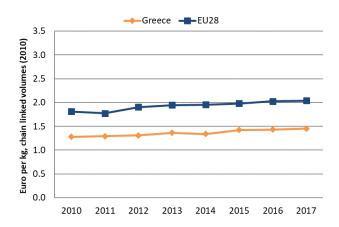
Greece also endorsed a new recycling law (4496/2017) in November 2017, which adjusted existing legislation to circular economy principles.

Greece also actively promotes dialogue among stakeholders to bring about change on the ground. The circular economy dialogue forum gathers businesses, SMEs, researchers, social entrepreneurs, etc., to promote circular business models and innovation.

In general, environmental policy in Greece still focuses on encouraging the use of renewable energies and adopting energy efficiency measures, which can spur ecoinnovation. These measures, along with the new national and regional waste management plans, can help the transition towards a circular economy.

Greece performs below the EU average on resource productivity<sup>4</sup> (how efficiently the economy uses material resources to produce wealth), with 1.45 EUR/kg (the average is 2.04) in 2017<sup>5</sup>. Figure 1 shows that Greece's resource productivity has increased slightly compared to 2014.

Figure 1: Resource productivity 2010-2017<sup>6</sup>



The Operational Programme on Competitiveness, Entrepreneurship and Innovation under the National

<sup>&</sup>lt;sup>1</sup> European Commission, 2018 Circular Economy Package.

<sup>&</sup>lt;sup>2</sup> COM(2018) 029.

 $<sup>^3</sup>$  European Commission, 2017, <u>Special 486 Eurobarometer</u>, 'Attitudes of European citizens towards the environment'.

<sup>&</sup>lt;sup>4</sup> Resource productivity is defined as the ratio between gross domestic product (GDP) and domestic material consumption (DMC).

<sup>&</sup>lt;sup>5</sup> Eurostat, Resource productivity

<sup>&</sup>lt;sup>6</sup> Eurostat, <u>Resource productivity.</u>

Strategic Reference Framework (NSRF) 2014-2020 allocates EUR 28.8 million to promoting innovative technologies for environmental protection and resource efficiency in waste management, water management, soil contamination and air pollution. The support includes businesses research & development (R&D) activities to develop and apply anti-pollution technologies and monitoring mechanisms. Another EUR 28.3 million is allocated to supporting green growth and eco-innovation in both the private and public sectors. The co-funded activities include measures to increase 'technological know-how' on environmental protection and the eco-design of products.

As of September 2018, Greece had 3348 products and 32 licences registered in the EU Ecolabel scheme, out of a total of 71707 products and 2167 licences in the EU.

#### **SMEs and resource efficiency**

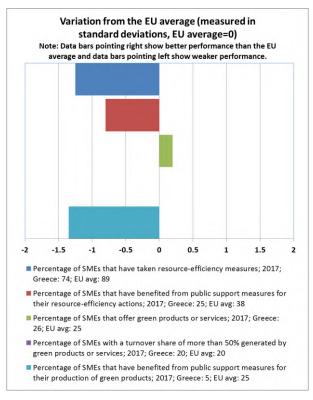
Greek SMEs continue to score below the EU-28 average in the environmental aspects of the small business act (see Figure 2). Although the proportion of SMEs benefiting from public support measures for their resource-efficiency actions has significantly increased from 4% to 25% compared to the previous reference period, further efforts are needed, as this rate is still among the lowest in the EU. Although some relevant measures have been adopted since 2008, such as 'Green Tourism' or 'Green Business', there is room for improvement in promoting the development of innovative eco-efficient processes, products and services and their uptake by SMEs.

The latest Eurobarometer on 'SMEs, resource efficiency and green markets' asked companies about both recent resource-efficiency actions they had taken and additional resource-efficiency actions they planned to take in the next 2 years. The Eurobarometer then compared these responses with the responses given to the same questions in 2015. An increasing number of companies claim to have invested in resource efficiency. Greek companies in many sectors are slowly approaching the EU-28 averages in this area. Looking at companies' intentions, this trend is set to continue, particularly for renewable energy use (28 %; +9 % compared to 2015 vs an EU-28 average of 22 %). Greek companies are not particularly ambitious on saving materials, minimising waste and recycling and their gap with the EU average for these indicators is still substantial.

At 14 %, the proportion of Greek companies that rely on external support in their efforts to be more resource efficient is below the EU average of 22 % (EU range 3 %-38 %). For advice, 59 % say that that they rely on private sector consultancy, but both business associations (24 %; +20 %) and public administrations (12 %; +12 %) have recovered from the crisis and gained in importance in this respect.

Among Greek companies, 46 % find grants and subsidies to be helpful. Moreover, Greek companies appreciate technical and financial consultancy (each 27 %) more than the EU average (22-23 %).

Figure 2: Environmental performance of SMEs<sup>8</sup>



As it recovers from the crisis, the Greek business sector is becoming more ambitious on resource efficiency and on developing green products and services. Public sector and business associations are increasingly seen as valuable partners in addition to private sector consultancy.

#### **Eco-innovation**

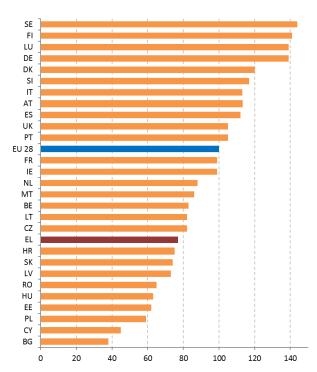
Greece ranked 22nd on the 2018 European Innovation Scoreboard<sup>9</sup>, while its performance was better in the Ecoinnovation Index for 2017 (Figure 3), scoring 20<sup>th</sup> with 77 points.

<sup>&</sup>lt;sup>7</sup> Flash Eurobarometer 456 'SME, resource efficiency and green markets' January 2018. The 8 dimensions were Save energy; Minimise waste; Save materials; Save Water; Recycle by reusing material internally; Design products easier to maintain, repair or reuse; Use renewable energy; Sell scrap materials to another company.

<sup>&</sup>lt;sup>8</sup> European Commission, <u>2018 SBA fact sheet - Greece</u>, p. 12.

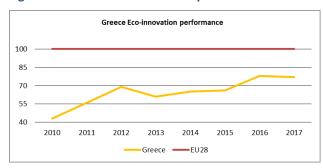
<sup>&</sup>lt;sup>9</sup> European Commission, <u>European innovation Scoreboard 2018</u>.

Figure 3: 2017 Eco-innovation index (EU=100)<sup>10</sup>



Since 2010, Greece has considerably improved, as shown in Figure 4. Greece has reduced the gap with the EU average by more than 30 points.

Figure 4: Greece's Eco-innovation performance



Environmental policy in Greece focuses on encouraging the use of renewable energies and applying energy efficiency and waste management measures that promote eco-innovation. The innovation capacity of the Greek economy depends largely on imported technology and know-how. Its strengths relate to organisational and marketing innovations rather than technical improvements. The small size of Greek companies also discourages developing and commercialising innovations further.

The policy framework to support innovation is expected to improve significantly thanks to the 2014 action plan to implement the 2015-2021 National Strategy for Research, Technological Development and Innovation,

<sup>10</sup> Eco-innovation Observatory: Eco-Innovation scoreboard 2017.

which promotes eco-innovation and other activities.

Research activities in Greece depend heavily on EU funds. The NSRF is expected to allocate around EUR 5.18 billion in 2014-2020 for environmental activities, of which EUR 1.2 billion will go towards strengthening research, technological development and innovation.

The National Fund for Entrepreneurship and Development (ETEAN) will prioritise supporting the sustainability, energy efficiency and renewable energy-related activities of businesses. The waste management plan also promotes R&D and the uptake of innovative technologies in eco-design, packaging and waste management<sup>11</sup>.

#### 2019 priority actions

- Strengthen the policy framework to speed up the transition towards the circular economy by all economic sectors, for instance for water and energy savings, waste reduction, the recycling of materials and/or the uptake of the secondary raw materials market.
- Improve eco-innovation performance, for example, through better use of environmental standards and licences and other European or international instruments.
- Incentivise the savings of energy and water and increase the level of recycling among SMEs.

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

This section focuses on management of municipal waste<sup>12</sup> for which EU law sets mandatory recycling targets<sup>13</sup>.

<sup>&</sup>lt;sup>11</sup> European Commission, Eco-Innovation Observatory: Eco-innovation Country Profiles 2016-2017.

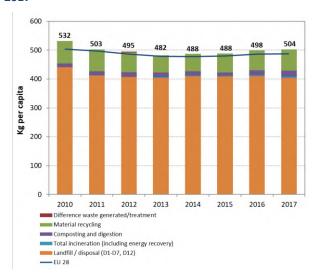
<sup>&</sup>lt;sup>12</sup> Municipal waste consists of mixed waste and separately collected waste from households and from other sources, where such waste is similar in nature and composition to waste from households. This is without prejudice to the allocation of responsibilities for waste management between public and private sectors.

<sup>&</sup>lt;sup>13</sup> See Article 11.2 of <u>Directive 2008/98/EC</u>. This Directive was amended in 2018 by Directive (EU) 2018/851, and more ambitious recycling targets were introduced for the period up to 2035.

In view of the recently adopted post-2020 recycling targets for municipal waste (55 % by 2025, 60 % by 2030 and 65 % by 2035) Greece will have to put more effort into shifting waste away from landfilling and towards recycling.

There are major structural problems with waste management in Greece. Municipal waste generation has remained at the same level in recent years, being slightly above the 2017 EU average (504 kg vs around 487 kg/y/inhabitant) (see Figure 5). Very little has changed since the 2017 EIR. Greece disposes the majority of its municipal waste in landfills (80 %, vs EU average of 24 %), with only 19 % being recycled (EU average 46 %). The landfill rate has decreased modestly and the recycling rate has slightly increased.

Figure 5: Municipal waste by treatment in Greece 2010-2017<sup>14</sup>



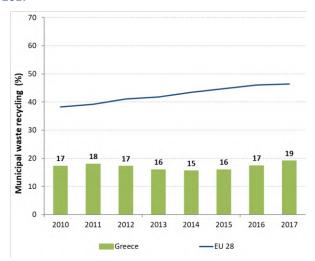
As shown in Figure 6, Greece is at risk of not achieving the target of 50 % municipal waste recycling by 2020. The Commission has therefore published an 'early warning report' for Greece, setting out specific priority actions to bridge the implementation gap. Greece must also make a significant effort to comply with the post-2020 recycling targets 16.

Greece adopted a landfill tax law in 2012, but its application has been postponed until 2019 at the earliest. In the meantime, the landfill gate fee, which is currently low, together with the cheap illegal landfills do not

<sup>14</sup>Eurostat, <u>Municipal waste by waste operations</u>.

encourage recycling over disposing of waste. The available economic instruments are insufficient and the schemes currently in place are ineffective. The 2012 payas-you-throw (PAYT) scheme to reduce waste in landfills and encourage people to separate their waste for separate collection is not yet being applied.

Figure 6: Recycling rate of municipal waste in 2010-2017<sup>17</sup>



Additional measures need to be taken to divert biodegradable waste from landfills and to put in place and monitor infrastructure and schemes for door-to-door separate collection. Incentive systems favouring prevention and participation to separate collection (PAYT schemes) do not yet exist, while specific incentives for local authorities to develop separate collection are under development.

On the positive side, Greece has made legal and practical progress in increasing waste recycling and expanding its EPR schemes. For example, it has reduced waste disposal to non-compliant landfills. In 2015, this dropped to less than 4 % of the total waste disposed. An operational plan for EPR, which will introduce funding for different EPR packaging schemes, is about to be applied. The local (municipal) waste management plans, which have been incorporated in the regional plans, set the separate collection of bio-waste as a basic goal. Greece has planned to allocate a large proportion of EU funds to waste management measures and infrastructure integrated waste treatment facilities and source separation schemes, in particular. However, there are doubts on whether spending on residual waste treatment at the lower levels of the waste hierarchy is too high compared to spending on infrastructure. Care must be taken not to move from landfilling to poor quality Mechanical and Biological Treatment installations (49 MBTs are currently foreseen).

7

<sup>&</sup>lt;sup>15</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, <a href="SWD(2018)418">SWD(2018)418</a> accompanying <a href="COM(2018)656">COM(2018)656</a>.

<sup>&</sup>lt;sup>16</sup> <u>Directive (EU) 2018/851</u>, <u>Directive (EU) 2018/852</u>, <u>Directive (EU) 2018/850</u> and <u>Directive (EU) 2018/849</u> amend the previous waste legislation and set more ambitious recycling targets for the period up to 2035. These targets will be taken into consideration to assess progress in future Environmental Implementation Reports.

<sup>&</sup>lt;sup>17</sup> Eurostat, Recycling rate of municipal waste.

Despite the national waste management plan's ambitious goal to reach a bio-waste recycling rate of 40 %, reaching more than 8-10 % by 2020 seems unlikely, especially without adequate treatment infrastructure.

Greece's 'early warning report' highlights the importance of helping local authorities to increase the skills of their staff. It gives recommendations for making the EPR schemes more effective and also underlines that the quality of the packaging data reported by the producers needs to be improved. Finally, it recommends the effective use of EU funds to support separate collection, recycling and composting.

#### 2019 priority actions

- 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 phaseout 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 bio-waste. 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<sup>18</sup>.

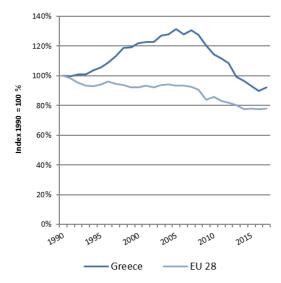
# Climate change

The EU has committed to undertaking ambitious climate action internationally as well as in the EU, having ratified the Paris Climate Agreement on 5 October 2016. The EU targets are to reduce greenhouse gas (GHG) emissions by 20 % by 2020 and by at least 40 % by 2030, compared to 1990. As a long-term target, the EU aims to reduce its emissions by 80-95 % by 2050, as part of the efforts required by developed countries as a group. Adapting to the adverse effects of climate change is vital to alleviate its already visible effects and improve preparedness for and resilience to future impacts.

The EU emissions trading system (EU ETS) covers all large greenhouse gas emitters in the industry, power and aviation sectors in the EU. The EU ETS applies in all Member States and has a very high compliance rate. Each year, installations cover around 99 % of their emissions with the required number of allowances.

For emissions not covered by the EU ETS, Member States have binding national targets under the Effort Sharing legislation. Greece had significantly lower emissions than its annual emission allocations (AEAs) in each of the years 2013-2017. For 2020, Greece's national target under the EU Effort Sharing Decision is to reduce emissions by 4 % compared to 2005. For 2030, Greece's national target under the Effort Sharing Regulation will be to reduce emissions by 16 % compared to 2005. According to its latest own projections, Greece is expected to overachieve its 2020 target under the effort sharing decision by 18% (-22% vs a target of -4%) and its 2030 target under the effort sharing regulation by 7%.

Figure 7: Change in total greenhouse gas emissions 1990-2017 (1990=100%)<sup>19</sup>.

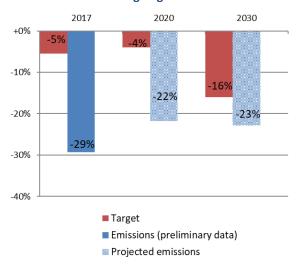


The country's carbon intensity level is nevertheless still high compared to other Member States. Additional efforts are therefore encouraged. For emissions covered by the EU ETS: In Greece approx. 145 installations and 20 aircraft operators are registered in the EU ETS. The total revenues from the auctioning of emission allowances under the EU ETS over the years 2013-2017 were EUR 820 million. 92% of the auctioning revenues have been spent on climate and energy purposes.

<sup>&</sup>lt;sup>18</sup> Set out in <u>Directive (EU) 2018/851</u> amending <u>Directive 2008/98/EC</u>.

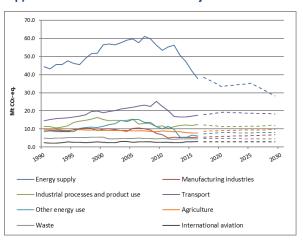
<sup>&</sup>lt;sup>19</sup>Annual European Union greenhouse gas inventory 1990–2016 (EEA greenhouse gas data viewer). *Proxy GHG emission estimates for 2017Approximated EU greenhouse gas inventory 2017* (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

Figure 8: Targets and emissions under the Effort Sharing Decision and Effort Sharing Regulation<sup>20</sup>.



Transport represents almost a quarter of the EU's GHG emissions and is the main cause of air pollution in cities. Transport emissions in Greece increased by 6 % from 2013 to 2016.

Figure 9: Greenhouse gas emissions by sector (Mt. CO2-eq.). Historical data 1990-2016. Projections 2017-2030<sup>21</sup>.



According to the F-gas regulation, Member States must implement training and certification programmes and rules for penalties and notify these measures to the Commission by 2017. Greece has notified both measures.

The accounting of GHG emissions and removals from forests and agriculture is governed by the Kyoto Protocol. A preliminary accounting exercise for 2013-2016 shows net credits of, on average, -0.5 Mt CO<sub>2</sub>-eq, which

Proxy GHG emission estimates for 2017Approximated EU greenhouse gas inventory 2017 (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.
 Annual European Union greenhouse gas inventory 1990–2016 (EEA greenhouse gas data viewer). Proxy GHG emission estimates for 2017Approximated EU greenhouse gas inventory 2017 (European Environment Agency). Member States national projections, reviewed by the European Environment Agency.

corresponds to 0.4% of the EU-28 accounted sink of -  $115.7 \text{ Mt CO}_2$ -eq.

The EU Strategy on adaptation to climate change, adopted in 2013, aims to make Europe more climate-resilient, by promoting action by Member States, better-informed decision making and adaptation in key vulnerable sectors. By adopting a coherent approach and providing for improved coordination, it seeks to enhance the preparedness and capacity of all governance levels to respond to the impacts of climate change.

Greece adopted its National Adaptation Strategy (NAS) by law in 2016. The Greek NAS is an overarching policy document, which defines the goals, principles and priorities for adaptation. The Greek NAS also lists potential adaptation measures and actions for fifteen (15) environmental and socio-economic sectors that are likely to be significantly affected by climate change in Greece. These sectors are: biodiversity and ecosystems, agriculture and food security, forestry, fisheries, aquaculture, water resources, coastal areas, tourism, energy, human health, the built environment, transport, cultural heritage, industry, mining, and the insurance. The NAS provides guidance, insight and priorities, which should be further detailed at regional level and translated into Regional Adaptation Action Plans.

The law also foresees the establishment of a National Climate Change Adaptation Committee to act as the formal coordination and advisory body of the Ministry of Environment and Energy at National level for adaptation policy design, coordination and implementation.

Work is ongoing to develop Regional Adaptation Action Plans. Each Regional Adaptation Action Plan will examine the potential measures and actions included in the National Adaptation Strategy, based on the particular regional characteristics, priorities and needs and will develop the regional priorities. Wherever there is a case for sector or sub-regional analysis, specific actions per sector or sub-regional area will be indicated. To date, there is no monitoring of the integration of climate change in sectoral policies, nor is there a framework that assesses adaptation actions that are being implemented. Greece will launch such a system in 2019 making use of EU funding programmes (LIFE integrated Projects).

#### 2019 priority action

In this report, no priority actions have been included on climate action, as the Commission will first need to assess the draft national energy and climate plans which the Member States needed to send by end of 2018. These plans should increase the consistency between energy and climate policies and could therefore become a good example of how to link sector-specific policies on other interlinked themes such as agriculture-nature-water and transport-air-health.

# 2. Protecting, conserving and enhancing natural capital

# **Nature and biodiversity**

The EU biodiversity strategy aims to halt the loss of biodiversity in the EU by 2020. It requires full implementation of the Birds and Habitats Directives to achieve favourable conservation status of protected species and habitats. It also requires that the agricultural and forest sectors help to maintain and improve biodiversity.

# **Biodiversity strategy**

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.

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

The Birds and Habitats Directives require Member States to establish a coherent national network of Natura 2000 sites. The Commission assesses compliance with this requirement individually for each species and habitat type occurring on the national territory of the Member States. The latest update of this assessment was carried out by the Commission with the assistance of the European Environment Agency. On the basis of this latest update, Greece's terrestrial Natura 2000 network under the Birds and Habitats Directives is now considered to be complete.

Greece has designated 446 Natura 2000 sites, including 265 sites of Community importance (SCIs) under the Habitats Directive and 207 Special Protection Areas (SPAs) under the Birds Directive. These sites cover 27.4 % of the national land area of Greece (EU average 18.2 %), and a significant proportion of its marine area<sup>22</sup>.

# Designating Natura 2000 sites and setting conservation objectives and measures

The terrestrial part of the Greek Natura 2000 network is largely complete. The latest big expansion of the marine part of the network is expected to address the remaining designation insufficiencies of both SCIs and SPAs<sup>23</sup>.

For 239 SCIs, the 6 year deadline set in the Habitats Directive to designate them as Special Areas of Conservation and establish appropriate conservation objectives and measures has now expired. As of April 2018, Greece had not fulfilled these obligations.

Although SPAs have horizontal protection measures under national legislation, some key implementing acts that apply the law are still missing.

Greece has adopted a sound and comprehensive law on biodiversity<sup>24</sup> and a national biodiversity strategy<sup>25</sup> but neither has been properly implemented.

Management plans and accompanying legal tools have been developed for a number of sites, mainly through LIFE or European Regional Development Fund (ERDF) financing. However, very few have been formally adopted and implemented. A major project under ERDF, starting in 2018, is expected to prepare or update management plans and legal acts covering all 446 Natura 2000 areas by the end of 2020.

According to Greece's latest report<sup>26</sup> on the conservation status of habitats and species covered by the Habitats Directive, only 63 % of the assessments for Mediterranean habitat types and 33 % for species show a good conservation status. However, for 12 % of species the status is unknown<sup>27</sup>.

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, financing, enforcement and monitoring). The recent law that aims to put in place management bodies for all Natura 2000 sites should provide significant benefits in this respect.

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

<sup>&</sup>lt;sup>22</sup> Sites of Community Importance (SCIs) are designated pursuant to the Habitats Directive whereas Special Areas of Protection (SPAs) are designated pursuant to the Birds Directive; figures do not add up due to the fact that some sites are designated as both SCIs and SPAs. Special Areas of Conservation (SACs) means SCIs subsequently designated as SACs by the Member States.

<sup>&</sup>lt;sup>23</sup>For each Member State, the Commission assesses whether the species and habitat types on Annexes I and II of the Habitats Directive, are sufficiently represented by the sites designated to date. This is expressed as a percentage of species and habitats for which further areas need to be designated in order to complete the network in that

country. The current data, which were assessed in 2014-2015, reflect the situation up until December 2013.

<sup>&</sup>lt;sup>24</sup> The Hellenic Republic, Law 3937/2011.

<sup>&</sup>lt;sup>25</sup> The Hellenic Republic, Ministerial Decision 40332/2014.

<sup>&</sup>lt;sup>26</sup> The Hellenic Republic, Period 2007-2012. The core of the 'Article 17' report is the assessment of conservation status of the habitats and species targeted by the Habitats Directive.

<sup>&</sup>lt;sup>27</sup>The Hellenic Republic, Conservation status is assessed using a standard methodology as being either 'favourable', 'unfavourable-inadequate' and 'unfavourable-bad', based on four parameters as defined in Article 1 of the Habitats Directive

promoting these benefits; (iii) insufficient scope for supporting sustainable land management and integrating it in other policies; and (iv) difficulties with enforcing the law. The LIFE integrated project, launched in 2017, should significantly help address these challenges.

Due to these shortcomings, many complaints and infringement cases are under way on issues such as: (i) the degradation of designated sites; (ii) the poor quality of 'appropriate assessments' under Article 6(3) of the Habitats Directive; (iii) the lack of strategic assessments; and (iv) insufficient protection of species and habitats (which is also due to illegal activities).



The main causes of biodiversity loss in Greece relate to past and current policies on unsustainable land use, agriculture, fisheries, transport, tourism (especially coastal), production and consumption patterns and climate change.

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

Member States report only once every 6 years on the progress made under both Directives<sup>28</sup>. Overall, it is acknowledged that *improvements* in the status of species and habitats have recently been reported in Greece.

#### 2019 priority actions

- Define clear conservation objectives for the Natura 2000 sites and complete and implement the management plans and legal tools for all the sites.
- Complete and implement the management plans and legal tools for all the sites. Ensure that all extended or newly established management bodies operate effectively, with clear responsibilities and sufficient resources and funding.
- 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.
- Improve the quality of appropriate assessments at plan and project level and ensure that their environmental impact is adequately monitored.

# Maintaining and restoring ecosystems and their services

The EU biodiversity strategy aims to maintain and restore ecosystems and their services by including green infrastructure in spatial planning and restoring at least 15 % of degraded ecosystems by 2020. The EU green infrastructure strategy promotes the incorporation of green infrastructure into related plans and programmes.

The EU has provided guidance on the further deployment of green and blue infrastructure in Greece<sup>29</sup> and a country page on the Biodiversity Information System for Europe (BISE)<sup>30</sup>. This information will also contribute to the final evaluation of the EU Biodiversity Strategy to 2020.

The 2014 National Biodiversity Strategy of Greece refers to green infrastructure. However, green infrastructure is not yet mainstreamed into other policy areas, such as disaster risk reduction or urban development. Several projects and initiatives have the potential to support connectivity and help implement green infrastructure.

There is a lack of urban green space in Greece. The preservation of coastal and marine areas is also a challenge. This is due to factors such as: (i) a high concentration of human activity and land use; (ii) a lack of political will; (iii) no comprehensive planning for the preservation and management of these areas; (iv) inadequate control mechanisms; and (v) a lack of coordination between the relevant authorities.

<sup>&</sup>lt;sup>28</sup> Conservation status data used in the 2019 EIR are from the 2007-2012 reporting period under the Habitats Directive, i.e. the same that should also have been used in the 2017 EIR. However at the time of the drafting of that report Greece had not submitted yet those data, hence the ones from 2001-2006 were used.

<sup>&</sup>lt;sup>29</sup> European Commission, The <u>recommendations of the green</u> <u>infrastructure strategy review report</u> and the EU Guidance on a strategic framework for further supporting the deployment of EU-level green and blue infrastructure.

<sup>&</sup>lt;sup>30</sup> <u>Biodiversity Information System for Europe.</u>

# **Estimating natural capital**

The EU biodiversity strategy calls on Member States to map and assess the state of ecosystems and their services<sup>31</sup> in their national territories by 2014, assess the economic value of such services and integrate these values into accounting and reporting systems at EU and national level by 2020.

The political significance of Mapping and Assessment of Ecosystems and their Services (MAES) has increased in Greece since 2014 and specific preparatory actions have started. The Hellenic Ecosystem Partnership (HESP) coordinates the ecosystem services assessment efforts in Greece. It aims to: (i) produce maps of ecosystem services at national level; (ii) create a strong network of research, practice and policy; and (iii) raise awareness on the value of ecosystems and their services. The HESP also collaborates with other MAES working groups (the ecosystem services partnership the Mediterranean working group and the marine working group).

The HESP adapted its conceptual framework to fit in with the aim of the national ES assessment. It is currently implementing its action plan that runs until 2020 to assess ecosystem services in Greece. It aims to complete the bio-physical assessments in 2018 and provide outcomes to support decision making between now and 2020<sup>32</sup>.

The LIFE integrated project '4 Natura' kicked off in 2017. The project includes a mapping and assessment of the country's ecosystem types and the services they provide. It also includes MAES case-studies in selected regions.

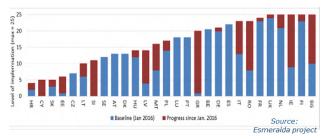
A series of MAES workshops took place in Greece in 2018 and two MAES technical guidance documents for Greece were published to support them<sup>33</sup>.

While there is plenty of academic research on ecosystem services in Greece, awareness of other societal groups, including decision-makers, is very limited. The role of the state remains difficult to assess.

At the MAES working group meeting in Brussels in September 2018, Greece was announced to have made substantial progress since January 2016 on implementing MAES (see Figure 11). This assessment, which is updated every six months, is underpinned by the ESMERALDA (Enhancing ecoSysteM sERvices mApping for poLicy and

Decision mAking) project<sup>34</sup> and based on 27 implementation questions.

Figure 10: Implementation of MAES (September 2018)



Business and biodiversity platforms, networks and communities of practice are key tools for promoting and facilitating natural capital assessments among business and financial service providers, for instance via the Natural Capital Coalition's protocol<sup>35</sup>. The assessments contribute to the EU biodiversity strategy by helping private businesses better understand and value both their impact and dependence on nature. Biodiversity platforms have been established at EU level<sup>36</sup> and in a number of Member States.

Greece has not yet established such a platform.

#### **Invasive alien species**

Under the EU biodiversity strategy, the following are to be achieved by 2020:

(i) invasive alien species identified;

(ii) priority species controlled or eradicated; and

(iii) pathways managed to prevent new invasive species from disrupting European biodiversity.

This is supported by the Invasive Alien Species (IAS) Regulation, which entered into force on 1 January 2015.

The grid on Greece's distribution of invasive alien species (IAS) (see Figure 12), which has been verified by Greece, shows that of the 37 species on the first EU list, eight have been observed in the environment. All eight IAS are established in Greece, although none is widespread. According to the data, Greece appears to be invaded to a lesser extent than its neighbouring countries, but this could be due to poorer data availability, as the listed species were not subject to surveillance before the adoption of the EU list.

<sup>31</sup> Ecosystem services are benefits provided by nature such as food, clean water and pollination on which human society depends.

<sup>&</sup>lt;sup>32</sup> Ecological and Sustainability data journal, <u>The need for the implementation of an Ecosystem Services assessment in Greece: drafting the national agenda</u>

<sup>&</sup>lt;sup>33</sup> Biodiversity information System for Europe, <u>MAES-related</u> <u>developments in Greece</u>

<sup>&</sup>lt;sup>34</sup> EU project, Esmeralda

<sup>&</sup>lt;sup>35</sup> Natural Capital Coalition, <u>Natural Capital Protocol</u>

<sup>&</sup>lt;sup>36</sup> Business and Biodiversity, <u>The European Business and Biodiversity</u> <u>Campaign</u> aims to promote the business case for biodiversity in the EU Member States through workshops, seminars and a cross media communication strategy.

Figure 11: Number of IAS of EU concern, based on available georeferenced information for Greece<sup>37</sup>



Between the entry into force of the EU list and 18 May 2018, Greece had not notified any new appearances of IAS of EU concern, according to Article 16(2) of the IAS Regulation.

According to the baseline distribution, Greece is one of the few Member States with a local population of Indian house crow (*Corvus splendens*) and the species is still in early invasion stage in Europe. Similarly, coypu (*Myocastor coypu*) still seems in an early invasion stage in Greece.

On the IAS Regulation, Greece has notified the Commission of its competent authorities responsible for implementation (Article 24(2)). It is not yet clear how Greece will implement the provisions on penalties applicable to infringements (Article 30(4)).

#### 2019 priority actions

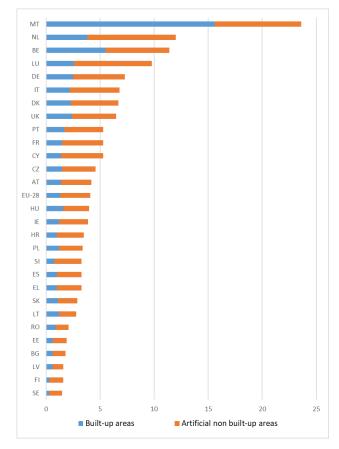
- Swiftly adopt national legislation to comply with obligations required by Article 30(4) of the IAS Regulation and notify the Commission in this regard.
- Investigate the apparent lack of data and seek ways of improving its surveillance system.
- Try to eradicate the species at an early invasion stage to avoid considerable long-term management costs.

## Soil protection

The EU soil thematic strategy underlines the need to ensure a sustainable use of soils. This entails preventing further soil degradation and preserving its functions, as well as restoring degraded soils. The 2011 Roadmap to a Resource Efficient Europe states that by 2020, EU policies must take into account their direct and indirect impact on land use.

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

Figure 12: Proportion of artificial land cover, 2015 38



Greece's artificial land coverage is below the EU average (3.3 % vs 4.1 %). The population density is 82.4/km², which is also below the EU average of 118<sup>39</sup>.

Contamination can severely reduce soil quality and threaten human health or the environment. A recent report of the European Commission<sup>40</sup> estimated that potentially polluting activities have taken or are still taking place on approximately 2.8 million sites in the EU.

<sup>&</sup>lt;sup>37</sup> Tsiamis K; Gervasini E; Deriu I; D`amico F; Nunes A; Addamo A; De Jesus Cardoso A. <u>Baseline Distribution of Invasive Alien Species of Union concern. Ispra (Italy): Publications Office of the European Union;</u> 2017, EUR 28596 EN, doi:10.2760/772692.

<sup>&</sup>lt;sup>38</sup> Eurostat, Land covered by artificial surfaces by NUTS 2 regions.

<sup>&</sup>lt;sup>39</sup> Eurostat, Population density by NUTS 3 region.

<sup>&</sup>lt;sup>40</sup> Ana Paya Perez, Natalia Rodriguez Eugenio (2018), Status of local soil contamination in Europe: Revision of the indicator "Progress in the management Contaminated Sites in Europe"

At EU level, 650 000 of these sites have been registered in national or regional inventories. 65 500 contaminated sites have already been remediated. Greece has not reported the national progress in the management of contaminated sites and brownfields to the working group of the European Environment Information and Observation Network (EIONET) that is responsible for this matter

Soil erosion by water is a natural process, but this natural process can be aggravated by climate change and human activities such as inappropriate agricultural practices, deforestation, forest fires or construction work. High levels of soil erosion can reduce productivity in agriculture and can have negative and transboundary impacts on biodiversity and ecosystem services. High levels of soil erosion can also have negative and transboundary effects on rivers and lakes (due to increased volume of sediments and transport of contaminants).

According to the RUSLE2015 model<sup>41</sup>, Greece has an average soil loss rate by water of 4.13 tonnes per hectare per year (t ha<sup>-a</sup> yr<sup>-y</sup>), compared to the EU mean of 2.46 t ha<sup>-a</sup> yr<sup>-y</sup>. This indicates that soil erosion in Greece is not in line with the EU average. Note that these figures are the output of an EU-level model based on rainfall, support practices, land cover, soil and slope characteristics, and can therefore not be considered as locally measured values. The actual rate of soil loss can vary strongly within a Member State depending on local conditions.

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.

#### **Marine protection**

EU coastal and marine policy and legislation require that by 2020 the impact of pressures on marine waters be reduced to achieve or maintain good environmental status (GES) and ensure that coastal zones are managed sustainably.

The Marine Strategy Framework Directive (MSFD)<sup>42</sup> aims to achieve good environmental status (GES) of the EU's marine waters by 2020. To that end, Member States must develop a marine strategy for their marine waters, and cooperate with the EU countries that share the same marine (sub)region.



For Greece, the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention) plays an important role in achieving goals required by the MSFD. These marine strategies comprise different steps to be developed and implemented over six-year cycles. The latest step required that Member States set up their programme of measures and report to the Commission on it by 31 March 2016.

In the case of Greece, the Commission could not assess whether its measures were appropriate to reach GES given that the country reported them too late for the Commission to include them in this assessment exercise.

#### 2019 priority action

 Ensure timely reporting of the different elements under the Marine Strategy Framework Directive so that Greece can be part of future Commission assessments.

<sup>&</sup>lt;sup>41</sup> Panagos, P., Borrelli, P., Poesen, J., Ballabio, C., Lugato, E., Meusburger, K., Montanarella, L., Alewell, C., The new assessment of soil loss by water erosion in Europe, (2015) Environmental Science and Policy, 54, pp. 438-447.

<sup>&</sup>lt;sup>42</sup> European Union, Marine Strategy Framework Directive 2008/56/EC

# 3. Ensuring citizen's health and quality of life

# Air quality

EU clean air policy and legislation require the significant improvement of air quality in the EU, moving the EU closer to the quality recommended by the World Health Organisation. Air pollution and its impacts on human health, 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 air quality legislation and defining strategic targets and actions beyond 2020.

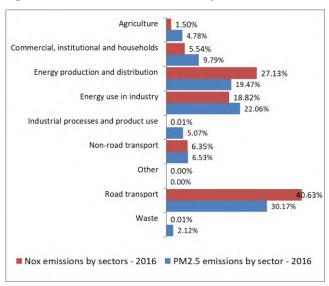
The EU has developed a comprehensive body of air quality legislation<sup>43</sup>, which establishes health-based standards and objectives for a number of air pollutants.

The emission reductions between 1990 and 2014 mentioned in the previous EIR continued between 2014 and 2016. During this period, emissions of sulphur oxides (SO<sub>x</sub>) fell by 19.74 %, emissions of ammonia (NH<sub>3</sub>) fell by 5.52 %, emissions of volatile organic compounds (NMVOCs) fell by 0.17 %, emissions of fine particular matter PM<sub>2.5</sub> fell by 10.11 % and emissions of nitrogen oxides (NO<sub>x</sub>) fell by 2.2 % (see Figure 13 on the total PM<sub>2.5</sub> and NO<sub>x</sub> emissions per sector).

Despite the reduction in emissions since 1990, the country needs to make additional efforts to meet its emission reduction commitments (compared with 2005 levels) set by the new National Emissions Ceilings Directive<sup>44</sup> for 2020-2029 and for any year as of 2030.

At the same time, air quality in Greece continues to be a cause of concern. For 2015, the European Environment Agency estimated that about 12 000 premature deaths were attributable to fine particulate matter<sup>45</sup> concentrations, over 6 100 to ozone<sup>46</sup> concentrations and 2 300 to nitrogen dioxide<sup>47</sup> concentrations<sup>48</sup>.

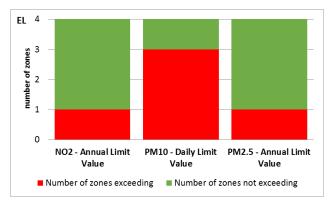
Figure 13: PM<sub>2.5</sub> and NO<sub>x</sub> emissions by sector in Greece<sup>49</sup>



Greece has not reported data on compliance with the environmental objectives for 2016 and 2017. For 2017, exceedances related to the annual limit value for nitrogen dioxide ( $NO_2$ ) were registered in 1 out of 4 air quality zones (Athens) and in 1 out of 4 zones for fine particulate matter ( $PM_{2.5}$ ). Exceedances have also been registered related to particulate matter ( $PM_{10}$ ) in 3 (out of 4) air quality zones.

See Figure 15 on the number of air quality zones exceeding  $NO_2$ ,  $PM_{2.5}$ , and  $PM_{10}$  levels.

Figure 14: Air quality zones exceeding EU air quality standards in 2017<sup>50</sup>



The persistent breaches of air quality standards (for  $PM_{10}$ ), which have severe negative effects on health and the environment, are being followed up by the European Commission through infringement procedures in all

<sup>&</sup>lt;sup>43</sup> European Commission, 2016. <u>Air Quality Standards</u>

<sup>44</sup> Directive 2016/2284/EU

<sup>&</sup>lt;sup>45</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 anthropogenic sources, including both combustion and non-combustion sources.

 $<sup>^{\</sup>rm 46}$  Low level ozone is produced by photochemical action on pollution.

<sup>&</sup>lt;sup>47</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>&</sup>lt;sup>48</sup> EEA, <u>Air Quality in Europe – 2018 Report</u>, p.64.(Please see details in this report as regards the underpinning methodology.

<sup>&</sup>lt;sup>49</sup> 2016 NECD data submitted by Member State to the EEA.

<sup>&</sup>lt;sup>50</sup> <u>EEA, EIONET Central Data Repository, Primary data (dataset E1a).</u>

Member States concerned, including Greece. The aim is to ensure that adequate measures are put in place to bring all zones into compliance.

The region of Western Macedonia is participating in the 'Coal Regions in Transition' initiative.



According to a special report from the European Court of Auditors<sup>51</sup>, EU action to protect human health from air pollution has not had its expected impact. There is a risk that air pollution is being underestimated in some instances, because it may not always be monitored in the right places. Member States are now required to report both real-time and validated air quality data to the Commission<sup>52</sup>.

#### 2019 priority actions

- Take, in the context of the National Air Pollution Control Programme (NAPCP), actions towards reducing the main emission sources - and meet all air quality standards.
- Upgrade and improve the air quality monitoring network, and ensure timely reporting of air quality
- Accelerate the reduction of nitrogen oxide (NO<sub>x</sub>) emissions and nitrogen dioxide (NO<sub>2</sub>) concentrations.
   This will require, for example, further reducing transport emissions, particularly in urban areas (and may require proportionate and targeted urban vehicle access restrictions).
- Accelerate reductions in particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>) emissions and concentrations. This will require, for example, further reducing emissions from energy production and heat generation using solid fuels, or promoting efficient and clean district

heating.

 Build on the 'Coal Regions in Transition' initiative to reduce the use of coal for domestic heating to limit air pollutant emissions.

#### **Industrial emissions**

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

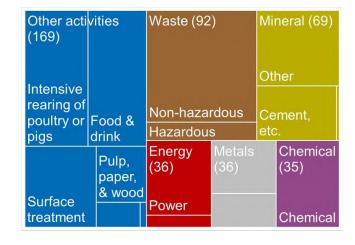
- (i) protect air, water and soil;
- (ii) prevent and manage waste;
- (iii) improve energy and resource efficiency; and
- (iv) clean up contaminated sites.

To achieve this, the EU takes an integrated approach to the prevention and control of routine and accidental industrial emissions. The cornerstone of the policy is the Industrial Emissions Directive<sup>53</sup> (IED).

The below overview of industrial activities regulated by the IED is based on the 'industrial emissions policy country profiles' project<sup>54</sup>.

In Greece, around 370 industrial installations must have a permit according to the IED. In 2015, the industrial sectors in Greece with the most IED installations were 'other activities' (39 % — mostly the intensive rearing of poultry or pigs, food and drink production and surface treatment), non-hazardous waste management (18 %), and minerals (16 %).

Figure 15: Number of IED industrial installations by sector, Greece (2015)<sup>55</sup>



<sup>&</sup>lt;sup>51</sup> European Court of Auditors, Special report no 23/2018, <u>Air pollution:</u>
Our health still insufficiently protected, p.41.

<sup>&</sup>lt;sup>52</sup> Article 5 of Commission Implementing Decision 2011/850/EU of 12 December 2011 laying down rules for <u>Directives 2004/107/EC</u> and <u>2008/50/EC</u> of the European Parliament and of the Council as regards the reciprocal exchange of information and reporting on ambient air quality (OJ L 335, 17.12.2011, p. 86) requires Member States to provide Up-To-Date data.

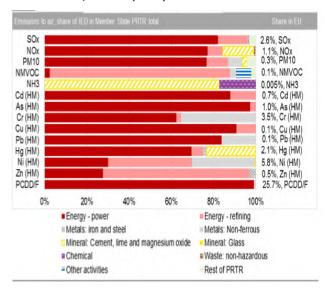
<sup>&</sup>lt;sup>53</sup> <u>Directive 2010/75/EU</u> covers industrial activities carried out above certain thresholds. It covers energy industry, metal production, mineral and chemical industry and waste management, as well as a wide range of industrial and agricultural sectors (e.g. intensive rearing of pig and poultry, pulp and paper production, painting and cleaning).

<sup>&</sup>lt;sup>54</sup> European Commission, <u>Industrial emissions policy country profile</u> – Greece.

<sup>55 &</sup>lt;u>European Commission</u>, <u>Industrial emissions policy country profile – Greece</u>.

The industrial sectors known to be the most harmful to the environment in Greece in terms of air emissions are: (i) 'energy-power' for all pollutants except ammonia (NH3) and non-methane volatile organic compounds (NMVOCs); (ii) 'energy-refining' for NMVOCs, Nickel (Ni) and Zinc (Zn) emissions; (iii) 'minerals' for ammonia (NH3) and mercury (Hg); and (iv) 'non-ferrous metals' for chromium (Cr), lead (Pb) and nickel (Ni). There is a lack of data for emissions in 'other activities'. The breakdown per pollutant reported by Greece to the E-PRTR <sup>56</sup> in 2015 is shown below.

Figure 16: Emissions to air from IED sectors and all other air emissions, Greece (2015)



Regarding water emissions, energy-power, energy-refining, chemicals and metals were identified as the most polluting sectors. The metals sector was the biggest producer of hazardous waste, and the energy-power sector was the biggest producer of non-hazardous waste.

The enforcement approach under the IED creates strong rights for citizens to have access to relevant information and to participate in the permitting process for IED installations. This empowers NGOs and the general public to ensure that permits are appropriately granted and their conditions respected.

Best available techniques (BAT) reference documents and BAT conclusions are developed through the exchange of information between Member States, industrial associations, NGOs and the Commission. This ensures a good collaboration with stakeholders and a better application of the IED's rules.

Thanks to the national competent authorities' efforts to apply the legally binding BAT conclusions and associated

<sup>56</sup> The European Pollutant Release and Transfer Register (EPRTR) is the Europe-wide register that provides key environmental data from industrial installations in Europe

BAT emission levels in environmental permits, pollution has decreased considerably and continuously in the EU.

For example, by applying the recently adopted BAT emission levels for large combustion plants, emissions of sulphur dioxide will be cut on average by between 25 % and 81 %, nitrogen oxide between 8 % and 56 %, dust between 31 % and 78 % and mercury between 19 % and 71 % at EU level. The extent of the reduction depends on the situation in individual plants.

The key challenges for the IED industrial sectors that were identified and discussed with the competent authorities are: (i) to reduce emissions in highly polluting installations in the energy-power sector, including the Agios Dimitrios and the Kardia lignite power plants; and (ii) to address illegal landfills in the waste management sector.

#### 2019 priority actions

- Review permits to ensure that they comply with the newly adopted BAT conclusions.
- Strengthen control and enforcement to ensure compliance with the BAT conclusions.
- Address pollution in power sector installations, especially in the Agios Dimitrios, Kardia and Amindeo lignite power plants.

#### **Noise**

The Environmental Noise Directive<sup>57</sup> provides for a common approach to avoiding, preventing and reducing the harmful effects of exposure to environmental noise.

Excessive noise from aircraft, railways and roads is one of the main causes of environmental health-related issues in the EU<sup>58</sup>.

The implementation of the Environmental Noise Directive is significantly delayed in Greece, based on a limited set of data<sup>59</sup>. The noise mapping for all agglomerations (i.e. population centres or places of economic activity), major roads and the major airport has not yet been completed and neither have the action plans for noise management.

These instruments, adopted after a public consultation had been carried out, should include the measures to keep noise low or reduce it.

<sup>&</sup>lt;sup>57</sup> Directive 2002/49/EC.

<sup>&</sup>lt;sup>58</sup> WHO/JRC, 2011, Burden of disease from environmental noise, Fritschi, L., Brown, A.L., Kim, R., Schwela, D., Kephalopoulos, S. (eds), World Health Organisation, Regional Office for Europe, Copenhagen, Denmark

<sup>&</sup>lt;sup>59</sup> European Environment Agency, Noise Fact Sheets 2017.

#### 2019 priority actions

- Complete the noise mapping and action plans for noise management.
- · Complete missing noise maps.

#### Water quality and management

EU legislation and policy requires that the impact of pressures on transitional, coastal and fresh waters (including surface and ground waters) be significantly reduced. Achieving, maintaining or enhancing a good status of water bodies as defined by the Water Framework Directive will ensure that EU citizens benefit from good quality and safe drinking and bathing water. It will further ensure that the nutrient cycle (nitrogen and phosphorus) is managed in a more sustainable and resource-efficient way.

The existing EU water legislation<sup>60</sup> puts in place a protective framework to ensure high standards for all water bodies in the EU and addresses specific pollution sources (for example, from agriculture, urban areas and industrial activities). It also requires that the projected impacts of climate change are integrated into the corresponding planning instruments e.g. flood risk management plans and river basin management plans, including programme of measures which include the actions that Member States plan to take in order to achieve the environmental objectives.

#### **Water Framework Directive**

Greece has adopted and reported the second generation of River Basin Management Plans under the Water Framework Directive, albeit with a long delay. The European Commission has therefore not yet conducted an assessment and not been able to assess the status and development since the first EIR report.

#### **Nitrates Directive**

Following the transposition of Directive 91/676/EEC for "the Protection of waters against pollution caused by nitrates from agricultural sources" (JMD 16190/1335/1997), 30 areas were defined as vulnerable to pollution caused by nitrates from agricultural sources zones. For 7 of these vulnerable zones (Thessalia plain, Copais plain, Argolis plain, Pineios river basin in Ilia, Strymonas river basin, Thessaloniki – Pella, Imathia plans, Arta-Preveza plain) action plans are being enacted and implemented according to the provisions of the Directive,

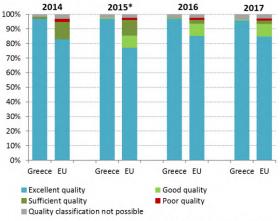
<sup>60</sup> This includes the <u>Bathing Waters Directive</u> (2006/7/EC), the <u>Urban Waste Water Treatment Directive</u> (91/271/EEC) (on discharges of municipal and some industrial wastewaters), the <u>Drinking Water Directive</u> (98/83/EC) (on potable water quality), the <u>Water Framework Directive</u> (2000/60/EC) (on water resources management), the <u>Nitrates Directive</u> (91/676/EEC) and the <u>Floods Directive</u> (2007/60/EC).

aiming to prevent the undermined degradation of waters in these areas. For the update of existing and development of new action plans for all nitrate vulnerable zones, and in order to ensure compliance with the Directive, and with the ruling of the Court C-149/14, a relevant project was launched in April 2017, in the framework of the Rural Development Programme 2014-2020, and is currently at the final elaboration stage.

#### **Bathing Water Directive**

In 2017, out of Greece's 1 598 bathing waters, 95.9 % were of excellent quality, 0.7 % of good quality and 0.1 % of sufficient quality (compared to 97.0 %, 0.6 % and 0.1 % respectively in 2016) (see Figure 18). Moreover, there was no bathing water of poor quality<sup>61</sup>. Detailed information on Greece's bathing waters is available on a national web portal<sup>62</sup> and on an interactive map viewer designed and hosted by the European Environment Agency<sup>63</sup>.

Figure 17: Bathing water quality 2014-2017<sup>64</sup>



\*The category 'good' was introduced in the 2015 bathing water report

#### **Urban Waste Water Treatment Directive**

Regarding Greece's overall compliance with the Urban Waste Water Treatment Directive, 100 % of wastewater is collected. However, 89.6 % of the load is connected to collection systems and 10.4 % is treated through individual or other appropriate systems (for instance septic tanks, storage units or individual treatment plants). Among the 455 agglomerations reported on by Greece, 217 are exclusively connected to individual or other appropriate systems (these have generated a load of between 2 000 and 28 000 per population). The high rate of connection to such systems, for which

<sup>&</sup>lt;sup>61</sup> European Environment Agency, 2017. <u>European bathing water quality in 2016</u>, p. 17.

<sup>&</sup>lt;sup>62</sup> Ministry of Environment and Energy, <u>Special Secretariat on Water,</u> <u>Bathing water profile</u>

<sup>&</sup>lt;sup>63</sup> European Environment Agency, <u>State of bathing waters</u>

<sup>&</sup>lt;sup>64</sup> European Environment Agency, 2018. <u>European bathing water quality in 2017</u>, p. 21.

information is lacking, must be considered when analysing the overall compliance. Concerning treatment, 98.8 % of the wastewater collected undergoes secondary treatment with 99.6 % undergoing more stringent treatment.

An investment of around EUR 1 568 million<sup>65</sup> is needed to ensure that wastewater in the remaining agglomerations is properly collected and treated. A technical assistance project for Greece by the European Commission is under way to systematically assess and strategically reorganise the country's investment needs for urban wastewater treatment.

#### **Floods Directive**

The Floods Directive (FD) established a framework for the assessment and management of flood risks, aiming at the reduction of the adverse consequences associated with significant floods.

Greece has adopted and reported its Preliminary Flood Risk Assessments and its Flood Hazard and Risk Maps under the FD. The first Flood Risk Management Plans were reported by Greece to the European Commission in October/November 2018. The European Commission has not yet conducted an assessment of the Plans.

#### 2019 priority actions

- Ensure timely adoption of next River Basin Management Plans and Flood Risk Management Plans in accordance with the Directives.
- Move forward quickly with the preparation of new Action Programmes fully compliant with the provisions of the Nitrates Directive.
- Concerning urban wastewater treatment, consider the issue of individual sanitation systems, in particular possible replacement with collecting systems and treatment plants whenever appropriate, e.g. in agglomerations with enough population density.

#### **Chemicals**

The EU seeks to ensure that by 2020 chemicals are produced and used in ways that minimise any significant adverse effects on human health and the environment. An EU strategy for a non-toxic environment that is conducive to innovation and to developing sustainable substitutes, including non-chemical options, is being prepared.

<sup>65</sup> European Commission, Ninth Report on the Implementation Status and the Programmes for Implementation of the Urban Waste Water Treatment Directive (COM(2017)749) and Commission Staff Working Document accompanying the report (SWD(2017)445).

The EU's chemicals legislation<sup>66</sup> provides baseline protection for human health and the environment. It also ensures stability and predictability for businesses operating within the internal market.

In 2016, the European Chemicals Agency published a report on REACH and the CLP Regulation<sup>67</sup> that showed that enforcement activities are still evolving. Member States cooperate closely within the Forum for Exchange of Information on Enforcement<sup>68</sup>. This cooperation has shown that there is scope to increase the effectiveness of enforcement activities, particularly for registration obligations and safety data sheets where the level of non-compliance is still relatively high.

While progress has been made, there is room to further improve and harmonise enforcement activities across the EU, including controls on imported goods. Enforcement remains weak in some Member States, particularly regarding controls on imports and supply chain obligations. The enforcement architecture is complex in most EU countries and enforcement projects reveal differences in compliance between Member States.

A 2015 Commission study already emphasised the importance of harmonised market surveillance and enforcement when implementing REACH at Member State level, deeming it to be a critical success factor in the operation of a harmonised single market<sup>69</sup>.

In March 2018, the Commission published an evaluation of REACH<sup>70</sup>. The evaluation concludes that REACH delivers on its objectives, but that progress made is slower than anticipated. In addition, the registration dossiers are often incomplete. The evaluation underlines the need to enhance enforcement by all actors, including registrants, downstream users and in particular for importers, to ensure a level playing field, meet the objectives of REACH and ensure consistency with the actions envisaged to improve environmental compliance and governance. Consistent reporting of Member State enforcement activities was considered important in that respect.

In Greece, the Ministry of Economy and Finance is responsible for enforcement. Inspection duties fall to the general chemical state laboratory's environment division. Their experts must inspect companies that produce,

19

<sup>&</sup>lt;sup>66</sup> Principally for chemicals: REACH (OJ L 396, 30.12.2006, p.1.); for Classification, Labelling and Packaging, the CLP Regulation (: OJ L 252, 31.12.2006, p.1.), together with legislation on biocidal products and plant protection products.

<sup>&</sup>lt;sup>67</sup> European Chemicals Agency, <u>Report on the Operation of REACH and</u>

<sup>&</sup>lt;sup>68</sup> ECHA, on the basis of the projects REF-1, REF-2 and REF-3.

<sup>&</sup>lt;sup>69</sup> European Commission. (2015). Monitoring the Impacts of REACH on Innovation, Competitiveness and SMEs. Brussels: European Commission.

<sup>&</sup>lt;sup>70</sup> COM(2018) 116.

import and distribute substances, mixtures and articles within the REACH framework. Border controls of goods produced by these companies are carried out by a network of GCSL officials (25 specially trained chemists/chemical engineers) in cooperation with the customs authorities<sup>71</sup>.

Companies are usually notified about upcoming inspections. Inspections take place annually and are carried out by the GCSL's regional chemical departments in coordination with, and under the supervision of, the environment division.

Companies are informed of the inspections' findings. If a company is found to be non-compliant with the legislation, it receives sanctions according to the national legislation.

## Making cities more sustainable

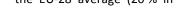
EU policy on the urban environment encourages cities to put policies in place for sustainable urban planning and design. These should include innovative approaches to urban public transport and mobility, sustainable buildings, energy efficiency and urban biodiversity conservation.

The population living in urban areas in Europe is projected to rise to just over 80% by 2050<sup>72</sup>. Urban areas pose particular challenges for the environment and human health, but they also provide opportunities for using resources more efficiently. The EU encourages municipalities to become greener through initiatives such as the Green Capital Award<sup>73</sup>, the Green Leaf Award<sup>74</sup> and the Green City Tool<sup>75</sup>.

#### Financing greener cities

Greece has indicatively earmarked 5 % of its European Regional Development Fund (ERDF) allocation and 8 % of its European Social Fund (ESF) allocation to sustainable urban development<sup>76</sup>.

Greece participates in the European Urban Development Network (UDN)<sup>77</sup>, which includes more than 500 cities across the EU responsible for carrying out integrated actions based on sustainable urban development strategies financed by ERDF in 2014-2020.



<sup>&</sup>lt;sup>79</sup> URBACT, Associated Networks by country.

<sup>78</sup> European Commission, <u>Urban Innovative Actions</u>.



Of the UDN's initiatives, the ERDF supports urban innovative actions (UIA) to test new and unproven solutions for urban challenges. The UIA has a total ERDF budget of EUR 372 million for 2014-2020<sup>78</sup>. Greece has received funding for two projects taking place in the municipalities of Athens and Heraklion.

#### Participation in EU urban initiatives and networks

Greek municipalities are involved in EU initiatives on environmental protection and climate change.

A total of 15 municipalities are involved in the URBACT initiative to support sustainable urban development through 18 different thematic networks<sup>79</sup>. However, all 18 networks are currently led by municipalities in other Member States.

Several Horizon 2020 network projects have also contributed to the sustainability of Greek cities. *CIVITAS* includes 46 municipalities and one region in Greece that work together for cleaner and better transport in cities<sup>80</sup>.

156 Greek cities are also involved in the EU Covenant of Mayors initiative<sup>81</sup>, coordinated by four regions, the Centre for Renewable Energy Sources and Saving and the Technical Chamber of Greece<sup>82</sup>. As of July 2018, 15 cities have implemented their action plans and are monitoring the results. Another 106 cities have at least presented their climate action plan and the commitments they aim to meet by 2020 or 2030.

These welcome urban initiatives and networks contribute to a better urban environment. In 2017, 31.7 % of the Greek population living in cities said that their neighbourhood was affected by pollution, grime or other environmental problems, up from 29.9 % in 2016 and 30.1 % in 2015. These figures are significantly higher than the EU-28 average (20 % in 2017, 18.9 % in 2016 and

<sup>&</sup>lt;sup>80</sup> European Commission, Horizon 2020 Civitas Project.

<sup>&</sup>lt;sup>81</sup>The Covenant of Mayors for Climate and Energy.

<sup>&</sup>lt;sup>82</sup> The Covenant of Mayors for Climate and Energy, <u>Covenant</u> community.

<sup>&</sup>lt;sup>71</sup> ECHA, <u>National Inspectorates – Greece</u>

<sup>&</sup>lt;sup>72</sup> European Commission, Eurostat, <u>Urban Europe</u>, 2016, p.9.

<sup>&</sup>lt;sup>73</sup> European Commission, European Green Capital.

<sup>&</sup>lt;sup>74</sup> European Commission, <u>European Green Leaf Award</u>.

<sup>&</sup>lt;sup>75</sup> European Commission, <u>Green City Tool</u>.

<sup>&</sup>lt;sup>76</sup> Greece, Partnership Agreement 2014-2020, 2014, p. 171.

<sup>&</sup>lt;sup>77</sup> European Commission, <u>The Urban Development Network</u>.

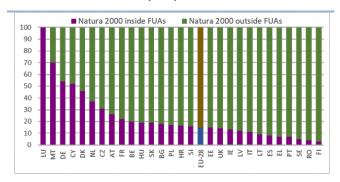
19.2 % in 2015)83.

#### **Nature and cities**

About 7% of Greece's Natura 2000 network is in functional urban areas<sup>84</sup>, which is below the EU average of 15% (see Figure 19).

There is a lack of urban green space in Greece. According to the World Health Organisation, the ideal ratio of green spaces is 9m² per inhabitant. The Organisation for Economic Cooperation and Development (OECD) has calculated Athens' total green space at 0.96 m² per inhabitant, while the Aristotelian University calculates Greece's second largest city, Thessaloniki, to be only slightly better with 2.14 m² of green space per inhabitant<sup>85</sup>.

Figure 18: Proportion of the Natura 2000 network in Functional Urban Areas (FUA)



#### **Urban sprawl**

Large parts of Europe are affected by urban sprawl. The value of WUP (weighted urban proliferation) for all of Europe (32 countries considered, i.e. EU-28 + 4) in 2009 was 1.64 UPU/m² (where the urban sprawl values for Europe ranged from 0.1 to 6.6 UPU/m², with a higher number meaning more urban sprawl). Greece (0.72 UPU/m² in 2009) is among the five countries with the lowest urban sprawl values, with an increase of around 9% from 2006 to 2009, while the overall increase was 5 %86,87.

#### Traffic congestion and urban mobility

Many subjects addressed in this report are to some extent related to traffic volumes and congestion, especially air quality and noise.

The total number of road vehicles in Greece has increased up to 5.16 million in 2016, a slight but constant

increase since 2013<sup>88</sup>. The amount of hours spent annually by the average driver in Greece in road congestion has decreased from 37.63 in 2014 to 35.63 in 2016, which remains one of the highest figures in the EU (fourth)<sup>89</sup>.

Athens and Thessaloniki are the only Greek cities with high congestion levels, between 25 and 50%. Compared to other EU cities, Athens is the 18<sup>th</sup> most congested city (out of 215 cities on the list), while Thessaloniki is the 94<sup>th90</sup>.

The modal split for inland passenger transport  $^{91}$  was 81 % for cars (EU-28 83.4 %) 17 % for buses and trolley buses (EU-28 9.1 %) and 2 % for trains (EU-28 7.6 %) $^{92}$ . Therefore, cars are still the favoured mode of transport for longer distances, with Greece having one of the highest proportions of passenger transport by bus/trolley in the EU.

Air pollution is partially a consequence of traffic. The age of the vehicle fleet is therefore of importance. The Greek truck fleet consists of vehicles that are mainly old, relatively small and purchased mainly for own-account activities<sup>93</sup>. There is as well a high rate of empty runs (33 % of distance travelled compared to 22 % in the EU). Moreover, large trucks (over 25.5 tonnes) account for only 10% of the fleet in Greece and the share of old trucks grew to 30% in 2015 (from 18% in 2008)<sup>94</sup>.

Several projects are taking place in the country to tackle issues connected to traffic congestion. Some of them are aiming at improving the port infrastructures, while others are trying to improve road congestion and better connect Greece with neighbouring countries<sup>95</sup>.

In terms of urban mobility, Greece is participating in several projects, such as the already mentioned CIVITAS initiative and the Thessaloniki's Urban Mobility Center<sup>96</sup>. The University of Thessaly organised the 4<sup>th</sup> Conference on Sustainable Urban Mobility in Skiathos Island on 24 and 25 May 2018, where participants disseminated knowledge and exchanged good practices in the area of urban transportation.

<sup>&</sup>lt;sup>83</sup> European Commission, Eurostat, <u>Pollution, grime or other</u> environmental problems by degree of urbanisation.

<sup>84</sup> European Commission, Definition of Functional Urban Areas.

<sup>&</sup>lt;sup>85</sup> Biodiversity Information System for Europe, Country profile Greece

<sup>&</sup>lt;sup>86</sup> Urban Permeation Units measure the size of the built-up area as well as its degree of dispersion throughout the region.

<sup>&</sup>lt;sup>87</sup> EEA, <u>Urban Sprawl in Europe, Annex I</u>, 2016, pp.4-5.

<sup>88</sup> Eurostat, Passenger cars per 1 000 inhabitants, 2018.

<sup>&</sup>lt;sup>89</sup> European Commission, <u>Hours spent in road congestion annually</u>.

<sup>&</sup>lt;sup>90</sup> TOMTOM, <u>TOMTOM Traffic Index</u>.

 $<sup>^{\</sup>rm 91}$  The relation between mode of transport and kilometres travelled (excluding bicycles and other alternative methods).

<sup>92</sup> Eurostat, Passenger transport Statistics by modal split.

<sup>&</sup>lt;sup>93</sup> European Parliament, <u>Traffic and Tourism in Greece</u>, 2018, pp. 1-9.

<sup>&</sup>lt;sup>94</sup> National Bank of Greece, <u>Survey of Greek SMEs - Land logistics sector</u>, Feb 2017, p. 9.

<sup>&</sup>lt;sup>95</sup> Ministry of Infrastructure and Transport, <u>ITS Progress Report for Greece</u>, 2017.

<sup>&</sup>lt;sup>96</sup> City of Thessaloniki, <u>Thessaloniki's Urban Mobility Center</u>.

# Part II: Enabling framework: implementation tools

# 4. Green taxation, green public procurement, environmental funding and investments

# Green taxation and environmentally harmful subsidies

Financial incentives, taxation and other economic instruments are effective and efficient ways to meet environmental policy objectives. The circular economy action plan encourages their use. Environmentally harmful subsidies are monitored in the context of the European Semester and the energy union governance process.

Greece's revenue from environment-related taxes remains among the highest in the EU. Environmental taxes accounted for 3.97 % of GDP in 2017 (EU-28 average 2.4 %) (see Figure 20) and energy taxes for 3.18 % of GDP (EU average 1.84 %)<sup>97</sup>. In the same year, environmental tax revenues in Greece were 9.5 % of total revenues from taxes and social security contributions (EU average 5.97 %).

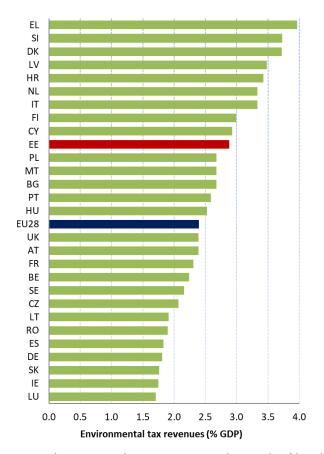
Greece's tax structure results in a significantly lower proportion of revenues from labour tax in total tax revenues than the EU average. Greece's labour tax revenues were 39.5 % in 2016, while the implicit tax burden on labour was 41 %98. Consumption taxes remained relatively high (38 %, 11th in EU-28), showing that there is some potential for shifting taxes from labour to consumption, particularly to environmental taxes.

There are examples of sound fiscal measures for the environment. However, implementation of the relevant legislation has been limited in several cases. For example, although the landfill tax has been in place since January 2014, it had not yet been implemented as of January 2018<sup>99</sup>.

Meanwhile, fossil fuel subsidies increased considerably in the past decade, mainly due to a number of public programmes supporting household heating and power generators on remote islands. Other household subsidies for fossil fuel use are in place in Greece, along with several excise tax refunds for agriculture, domestic shipping, fishing, tourist boats and for the use of coal and coke<sup>100</sup>. These exemptions added up to EUR 260 million

in 2016 and budget transfers for allowances amounted to over EUR 1.5 billion.

Figure 19: Environmental tax revenues as % of GDP  $(2017)^{101}$ 



Greece has not made progress on reducing the 'diesel differential' (difference in the price of diesel versus petrol) since 2005. In 2016 there was a remarkable 101 % gap between petrol and diesel tax rates, while in 2005 it was only 21  $\%^{102}$ . Tax rates on petrol and diesel in 2016 remained similar to those in 2015 (EUR 0.67 per litre for petrol and EUR 0.33 for diesel) $^{103}$ .

<sup>&</sup>lt;sup>97</sup> Eurostat, Environmental tax revenues, 2018.

<sup>&</sup>lt;sup>98</sup> European Commission, <u>Taxation Trends Report</u>, 2017.

<sup>&</sup>lt;sup>99</sup> Institute for European Environmental Policy, Case Studies on Environmental Fiscal Reform, <u>Landfill tax in Greece.</u>

<sup>&</sup>lt;sup>100</sup> OECD, <u>Inventory of Support Measures for Fossil Fuels</u>, 2018.

<sup>&</sup>lt;sup>101</sup> Eurostat, Environmental tax revenues, 2018.

<sup>&</sup>lt;sup>102</sup> European Environment Agency 2016, <u>Environmental taxation and EU environmental policies</u>, p.27.

<sup>&</sup>lt;sup>103</sup> European Commission, <u>Taxes in Europe Database</u>, 2018.

Favourable tax treatment for company cars is not a cause for concern in Greece $^{104}$  and no significant fiscal changes were introduced in  $2017^{105}$ .

CO2-based motor vehicle taxes are in place in Greece. Vehicle registration tax is based on CO2 emissions with rates varying depending on the pollution levels. The annual circulation tax has also been based on emissions since 2010 and cars with emissions lower than 90 g/km are exempt <sup>106</sup>.

Incentives to encourage people to buy cars with lower CO2 emissions were common in 2016. These were linked to annual circulation taxes, road tolls, congestion or low emission zone charges and to buying cleaner vehicles. However, none of the incentives was connected to the priority use of public infrastructures<sup>107</sup>. New vehicles bought in Greece are among the most environmentally friendly in the EU, with average CO2 emissions of 106.3 grams per kilometre (EU average 118 grams in 2016)<sup>108</sup>.

The use of alternative fuels in new passenger cars sold in Greece has decreased over the past few years. In 2016, the proportion of new passenger cars using alternative fuels was half that of 2011<sup>109</sup>. On a positive note, the share of battery-powered electric vehicles has increased progressively since 2013.

#### **Green public procurement**

The EU green public procurement policies encourage Member States to take further steps to apply green procurement criteria to at least 50 % of public tenders. The European Commission is helping to increase the use of public procurement as a strategic tool to support environmental protection.

The purchasing power of public procurement amounts to around EUR 1.8 trillion in the EU (approximately 14% of GDP). A substantial proportion of this money goes to sectors with a high environmental impact such as construction or transport. Therefore, green public procurement (GPP) can help to significantly lower the negative impact of public spending on the environment

and can help support sustainable innovative businesses. The Commission has proposed EU GPP criteria 110.

A European Parliament study shows that Greece's GPP action plan has been insufficiently implemented<sup>111</sup>.

Nevertheless, some initiatives are taking place at local level. Amaroussion was the first municipality in Greece to be registered under the EMAS scheme in 2006; and under ISO 14001:2004 in 2010. It also received the National EMAS Award (2009) for applying green criteria in its purchasing practices. Public procurement criteria are amended by the Municipality to purchase goods and services that are environmentally friendly. Amendments are made based on the results of regular market research carried out to identify "green" products available on the Greek market; information is then used to develop technical specifications<sup>112</sup>.

#### **Environmental funding and investments**

European Structural and Investment Fund (ESIF) rules oblige Member States to promote environment and climate in their funding strategies and programmes for economic, social and territorial cohesion, rural development and maritime policy.

Achieving sustainability involves mobilising public and private financing sources<sup>113</sup>. Use of the European Structural and Investment Funds (ESIFs)<sup>114</sup> is essential if countries are to achieve their environmental goals and integrate these into other policy areas. Other instruments such as Horizon 2020, the LIFE programme<sup>115</sup> and the European Fund for Strategic Investments (EFSI)<sup>116</sup> may also support the implementation and spread of good practices.

<sup>&</sup>lt;sup>104</sup> European Commission, <u>Taxation of commercial cars in Belgium</u>, 2017, p.3.

<sup>&</sup>lt;sup>105</sup> FleetEurope, Major changes to company car taxation in Europe.

<sup>&</sup>lt;sup>106</sup> ACEA, CO<sub>2</sub> based motor vehicle taxes in Europe .

<sup>&</sup>lt;sup>107</sup> European Environmental Agency, <u>Appropriate taxes and incentives</u> do affect purchases of new cars, 18 May 2018.

<sup>&</sup>lt;sup>108</sup> European Environment Agency, <u>Average CO2 emissions from new passenger cars sold in EU-28 Member States plus Norway, Iceland and Switzerland in 2016.</u>

<sup>&</sup>lt;sup>109</sup> European Commission, <u>Transport in the European Union Current Trends and Issues</u>, 2018, pp.27-28.

<sup>&</sup>lt;sup>110</sup> In the Communication 'Public procurement for a better environment' (COM (2008) 400) the Commission recommended the creation of a process for setting common GPP criteria. The basic concept of GPP relies on having clear, verifiable, justifiable and ambitious environmental criteria for products and services, based on a life-cycle approach and scientific evidence base.

<sup>&</sup>lt;sup>111</sup> European Parliament, <u>Green Public Procurement and the Action Plan</u> for the Circular Economy, 2017, pp. 79-80.

<sup>&</sup>lt;sup>112</sup> European Commission, <u>Collection of Good Practices on GPP</u>, 2012-2017.

<sup>&</sup>lt;sup>113</sup> See, for example, <u>Action plan on financing sustainable growth</u> (COM(2018) 97).

<sup>&</sup>lt;sup>114</sup> i.e. the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF). The ERDF, the CF and the ESF are referred to as the 'cohesion policy funds'.

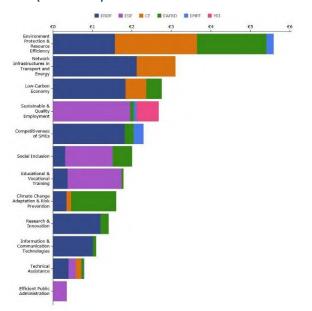
<sup>&</sup>lt;sup>115</sup> European Commission, <u>LIFE programme</u>.

<sup>&</sup>lt;sup>116</sup> European Investment Bank, <u>European Fund for Strategic Investments</u>, 2016.

# **European Structural and Investment Funds 2014-2020**

Greece has been allocated EUR 21.61 billion from ESIF funds for the period 2014-2020 through 20 national and regional programmes. This means that with its national contribution of EUR 4.6 billion, Greece has a total budget of EUR 24.98 billion to invest in various areas, such as creating jobs and growth, increasing the competitiveness of SMEs, protecting the environment, helping the transition to a low carbon economy and improving transport and energy infrastructure.

Figure 20: ESIF 2014-2020 – EU allocation by theme, Greece (EUR billion)<sup>117</sup>



#### **Cohesion policy**

In 2014-2020, Greece has been managing 18 Operational Programmes under EU cohesion policy. Of these, 13 regional programmes and two national programmes receives funding from the ERDF and the ESF; one national programme receive funding from the ERDF and the cohesion fund; one national programme will receive funding from the ESF; and a national technical assistance programme will receive funding from the ERDF, the ESF and the cohesion fund.

For 2014-2020, Greece has been allocated EUR 16.5 billion (current prices) in total cohesion policy funding.

EU funds are a key asset for comprehensive environmental protection in the EU<sup>118</sup>. One of the

<sup>117</sup> European Commission, <u>European Structural and Investment Funds</u> <u>Data By Country.</u> Commission's investment priorities for Greece in 2014-2020 is 'environmental protection and the transition to a climate-friendly economy' 119. These investments will also help the transition towards a circular economy.

Innovation and the low carbon economy are key areas to consider when estimating environmental spending. The ERDF and cohesion fund allocate EUR 1.9 billion to the low carbon economy as well as EUR 339 million to climate adaptation and EUR 3 billion to environmental measures<sup>120</sup>. In addition, around 5 % of the ERDF budget is used for sustainable urban development.

The ERDF supports projects like the extension of the Athens metro network, which has changed the face of public transport in the Capital. The metro extension has reduced congestion, cut traffic emissions and reduced traffic accidents. It has also upgraded and injected new life into the neighbourhoods next to the new metro stops.

#### **Rural development**

The latest financial data available (relating to the 2007-2013 period) show that the use of rural development allocations in Greece was 92.9%, lower than the EU average (97.3%) <sup>121</sup>.

The EAFRD allocated EUR 4.7 billion to Greece for 2014-2020.

On integrating environmental concerns into the common agricultural policy (CAP), the two key areas are: (i) to use the rural development funds to pay for environmental land management and other environmental measures, while avoiding financing measures which could damage the environment; and (ii) to ensure that the first pillar of the CAP is implemented effectively for cross-compliance and first pillar 'greening'.

On Pillar 1 of the CAP, 30 % of the national direct envelope is allocated to the greening payment. Given the prevalence of small farms and permanent crops in Greece, the impact of greening is limited.

Greece uses around EUR 387 million of its EAFRD funds to meet its agri-environmental commitments and EUR 600 million to support organic farming. However, many Greek environmental measures remain near the baseline.

An additional EUR 7.5 million are used to meet the country's obligations under its Natura 2000 management plan. Greece should also make the best possible use of rural development funds to prevent forest fires and repair the damage they cause.

24

<sup>&</sup>lt;sup>118</sup> 'The objectives of the ESI Funds shall be pursued in line with the principle of sustainable development and with the Union's promotion of the aim of preserving, protecting and improving the quality of the environment, as set out in Article 11 and Article 191(1) TFEU, taking into account the polluter pays principle' Article 8, Reg. (EU) No 1303/2013.

<sup>&</sup>lt;sup>119</sup>European Commission, <u>Partnership agreement with Greece - 2014-20</u>
<sup>120</sup> European Commission, Partnership agreement with Greece - 2014-

<sup>&</sup>lt;sup>121</sup> COM/2017/0554.

The Greek development programme (RDP) outlines the country's priorities for using the EUR 5.7 billion in funding available for 2014-2020. This funding includes EUR 4.7 billion from the EAFRD and EUR 1 billion of national cofunding<sup>122</sup>.

A main focus of Greece's RDP is to preserve and improve ecosystems. Of the available funds, 19.20 % will be spent on preserving the biodiversity of farmland, 18.72 % on improving water management and 25.38 % on improving soil management and/or preventing soil erosion.

The direct payment budget for 2015-2020 is EUR 14.9 billion, 30 % of which is being allocated to greening practices that benefit the environment  $^{123}$ .

#### **European Maritime and Fisheries Fund**

Greece receives around EUR 523 million in co-financing for fisheries and the maritime sector, including an EU contribution of EUR 388 million. This has helped finance sustainable fisheries (Priority 1 of the Operational Programme) and sustainable aquaculture (Priority 2) measures. Under Priority 1, EUR 186.2 million (35.57 % of the total Operational Programme allocation) aims to make the Greek fisheries sector viable and sustainable and to protect fishing and marine resources. Under Priority 2, EUR 89.7 million (17.15 % of the allocation) aims to create environmentally sustainable, resource efficient, innovative, competitive and knowledge-based aquaculture<sup>124</sup>.

#### The Connecting Europe Facility

The Connecting Europe Facility (CEF) is a key EU funding instrument developed specifically to direct investment into European transport, energy and digital infrastructures. It aims to address identified missing links and bottlenecks and promote sustainability.

One CEF-funded project in Greece is the 'SuperGreen' action, which creates innovative and commercial technological systems that increase the use of alternative fuels in the country's shipping sector. The CEF funds 20% of the project's costs, which amount to EUR 19.7 million<sup>125</sup>.

#### **Horizon 2020**

Greece has benefited from Horizon 2020 funding since the programme started in 2014. As of January 2019, 815 participants have been granted a maximum amount of EUR 224.6 million for projects from the Societal

<sup>122</sup> European Commission, <u>Rural development 2014-2020: Country files:</u> Greece

Challenges work programmes dealing with environmental issues<sup>126</sup> 127.

In addition to the abovementioned work programmes, climate and biodiversity expenditure is present across the entire Horizon 2020. In Greece, projects accepted for funding in all Horizon 2020 working programmes until December 2018 included EUR 231 million destined to climate action (26.2 % of the total Horizon 2020 contribution to the country) and EUR 30 million for biodiversity-related actions (3.4 % of the Horizon 2020 contribution to the country)<sup>128</sup>.

#### LIFE programme

Since its launch in 1992, the LIFE programme has cofinanced a total of 240 projects in Greece at a total investment of EUR 327 million. The EU provided EUR 175 million of this amount. Of these projects, 153 have focused on environmental innovation (under the LIFE environment and resource efficiency priority) and 70 on nature conservation (under the nature and biodiversity priority).

For 2014-2017 the EU has allocated EUR 24 million to Greek projects<sup>129</sup>. One of them is entitled 'ForestLife'. With a requested EU contribution of around EUR 1 million<sup>130</sup>, this project aims to build cooperation, develop skills and share knowledge for Natura 2000 forests in Greece. Other examples include a project to develop and demonstrate a waste prevention tool to support local authorities (the 'WASP' tool) and a project to improve bear-human coexistence in the Kastoria prefecture (ARCTOS/KASTORIA)<sup>131</sup>.

### **European Investment Bank**

In 2013-2017, EIB financing in Greece totalled EUR 7 869 billion. Of this, EUR 72.7 million went towards waste management and EUR 95.5 million towards water and sewerage projects<sup>132</sup>. In 2018 alone, the EIB group (the European Investment Bank and the European Investment Fund) loaned Greek businesses and public institutions

<sup>&</sup>lt;sup>123</sup> European Commission, CAP in Greece, 2017.

<sup>&</sup>lt;sup>124</sup> European Commission, European Maritime and Fisheries Fund, Country files

<sup>&</sup>lt;sup>125</sup> European Commission, The Connecting Europe Facility, SuperGreen' action.

<sup>&</sup>lt;sup>126</sup> European Commission <u>own calculations based on CORDA (COmmon Research DAta Warehouse)</u>. A maximum grant amount is the maximum grant amount decided by the Commission. It normally corresponds to the requested grant, but it may be lower.

<sup>127</sup> i.e. (ii) Food security, sustainable agriculture and forestry, marine and maritime and inland water research and the bioeconomy; (iii) Secure, clean and efficient energy; (iv) Smart, green and integrated transport; and (v) Climate action, environment, resource efficiency and raw materials.

<sup>&</sup>lt;sup>128</sup> European Commission <u>own calculations based on CORDA (COmmon Research DAta Warehouse)</u>.

<sup>&</sup>lt;sup>129</sup> Commission services based on data provided by EASME.

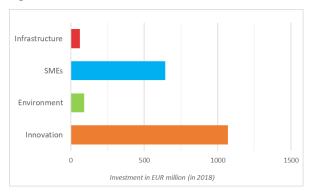
<sup>&</sup>lt;sup>130</sup> European Commission, <u>LIFE ForestLife</u>.

<sup>&</sup>lt;sup>131</sup> European Commission, Life Programme, <u>LIFE by country: Greece</u>.

<sup>&</sup>lt;sup>132</sup> European Investment Bank, <u>The European Investment Bank in Greece 2013-2017.</u>

EUR 1.87 billion, as shown in Figure 22. Of this, EUR 91.5 million (5 %) went to environmental projects<sup>133</sup>.

Figure 21: EIB loans to Greece in 2018 134



#### **European Fund for Strategic Investments**

The EFSI is an initiative to help overcome the current investment gap in the EU. The EFSI has mobilised EUR 2.7 billion in Greece as of January 2019. The secondary investment triggered by those funds is expected to be EUR 11.1billion<sup>135</sup>.

#### National environmental financing

Greece spent EUR 2 752 billion on environmental protection in 2016, an increase of 8 % from 2015<sup>136</sup>. 41 % of these payments were for waste management activities (the annual average percentage of environmental spending allocated to waste management in the EU is 49.7 %). EUR 256 million was allocated to wastewater management (9 % of the total) and EUR 1.327 billion was allocated to reducing pollution (48 % of the total). EUR 2 million of environmental expenditure was allocated to protecting biodiversity and the landscape (0.1 % of total). Between 2012 and 2016, the general government funding for environmental protection was EUR 13.1 billion<sup>137</sup>.

As it has been mentioned throughout the report, one of the main challenges for Greece is to ensure that environmental financing remains at an adequate level. Existing financial gaps in areas such as nature protection are delaying the correct implementation of EU environmental law and policies. Therefore, ensuring financial resources to reduce the implementation gap should be considered a priority for the country.

# 2019 priority action

 Secure efficient use of available EU funds for nature conservation, based on the Prioritised Action Framework (PAF).

<sup>&</sup>lt;sup>133</sup> European Investment Bank, Greece and the EIB

<sup>134</sup> EIB, Greece and the EIB, 2018.

<sup>&</sup>lt;sup>135</sup> EIB, <u>EFSI project map.</u>

<sup>&</sup>lt;sup>136</sup> Eurostat, General Government Expenditure by function, 2018.

<sup>&</sup>lt;sup>137</sup> Eurostat, General Government Expenditure by function, 2018.

# 5. Strengthening 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; and
- (iii) access to justice in environmental matters.

It is of crucial importance to public authorities, the public and business that environmental information is shared efficiently and effectively<sup>138</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>139</sup>. It includes the right to bring legal challenges ('legal standing')<sup>140</sup>.

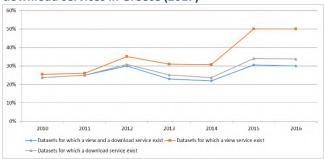
#### **Environmental information**

Greece has a centralised system for providing environmental data. The Ministry of Environment and Energy's portal<sup>141</sup> is the main portal for all such information. Information on chemicals and industrial emissions is missing from the national portals and metadata and historical datasets on EU environmental legislation are not available. Data on the INSPIRE specifications is only available on the INSPIRE portal, which is linked to the environment portal. Regarding usability, most of the available information can be found by using the search function.

Greece's implementation of the INSPIRE Directive leaves room for improvement. The country's performance has been reviewed based on its 2016 implementation report<sup>142</sup> and its most recent monitoring data from 2016<sup>143</sup>. (Greece was late in providing monitoring results for 2017). Greece needs to make more effort to identify and document spatial data and to make the data

accessible through services. Greece also needs to make more effort to prioritise environmental datasets in the implementation of environmental legislation. In particular, it needs to prioritise datasets identified as high-value spatial datasets <sup>144</sup>.

Figure 22: Access to spatial data through view and download services in Greece (2017)



#### **Public participation**

In Greece, the main legal acts related to public participation Law 3422/2005 303A/13.12.2005)145, Law 4014/2011 and 4042/2012 and the Joint Ministerial Decision (JMD) 1649/45/2014 (OJG 45B/15.01.2014). Together they implement the different pillars of the Aarhus Convention. In practice, two platforms provide centralised information on public participation: (i) the 'Open Governance' website 146 on public consultations; and (ii) the digital environmental register (DER)<sup>147</sup> where the public can see files submitted online by permit applicants with all the necessary background data. Unfortunately, the DER is still not fully operational, preventing the public's access to the necessary information and impeding the participatory process<sup>148</sup>.

The Eurobarometer figures from 2017 show that people in Greece agree strongly (88 % of respondents) that an individual can play a role in protecting the environment. This is the same as the 2014 Eurobarometer.

#### Access to justice

While Greece's Ministry of Energy and Environment (MoEE) website provides general information on the public's right to access to justice, the site is not user-friendly.

<sup>138</sup> The Aarhus Convention, the Access to Environmental Information Directive 2003/4/EC and the INSPIRE Directive 2007/2/EC together create a legal foundation for the sharing of environmental information between public authorities and with the public. This EIR focuses on INSPIRE

<sup>&</sup>lt;sup>139</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>&</sup>lt;sup>140</sup> This EIR looks at how well Member States explain access to justice rights to the public, and at legal standing and other major barriers to bringing cases on nature and air pollution.

<sup>141</sup> The Ministry of Environment and Energy's portal

<sup>&</sup>lt;sup>142</sup> INSPIRE EL <u>country sheet</u> 2017.

<sup>&</sup>lt;sup>143</sup> INSPIRE monitoring dashboard

<sup>&</sup>lt;sup>144</sup> European Commission, <u>List of high value spatial data sets</u>

<sup>145</sup> Law 3422/2005 (OGJ 303A/13.12.2005).

<sup>&</sup>lt;sup>146</sup> Ministry of Administrative Reform and E-Governance, <u>Open</u> government web portal

<sup>&</sup>lt;sup>147</sup> The Hellas Republic, <u>The digital environmental register</u>

<sup>&</sup>lt;sup>148</sup> WWF Hellas (2017), <u>General remarks on the implementation of the Aarhus Convention, in Greek</u>

Greece has liberal standing rules and the Council of State's case-law has long been considered to be pioneering on environmental protection. There are no significant barriers to bringing nature or air pollution cases before the court.

#### 2019 priority actions

- Improve access to spatial data and services by making stronger links between the central INSPIRE website and regional portals. Identify and document all spatial datasets required for the implementation of environmental law<sup>149</sup>. Make the data and documentation at least accessible 'as is' to other public authorities and the public through the digital services set out in the INSPIRE Directive.
- Better inform the public about their rights to access to justice, notably in relation to air pollution and nature.

#### **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>150</sup>. It includes support measures provided by the authorities, such as:

(i) compliance promotion<sup>151</sup>;

(ii) inspections and other checks that they carry out, i.e. compliance monitoring<sup>152</sup>; and

(iii) the steps that they take to stop breaches, impose sanctions and require damage to be remedied, i.e. enforcement<sup>153</sup>.

Citizen science and complaints enable authorities to focus their efforts better. Environmental liability<sup>154</sup> ensures that the polluter pays to remedy any damage.

#### **Compliance promotion and monitoring**

Online information is given to farmers on how to comply with obligations on nitrates and nature. The quality of this information is an indicator of how actively authorities promote compliance in areas with serious implementation gaps. In Greece, there is a general lack of

online practical information targeted at farmers on these subjects.

Major industrial installations can present serious pollution risks. Public authorities are required to have plans to inspect these installations and to make individual inspection reports available to the public 155. The 'National Plan and Programme of Regular Environmental Inspections' (June 2017) identified a total of 1 291 industries across the country subject to environmental inspections. It also defined the specific features of the inspection programme to be applied in 2017 and 2018 (and the years to come).

#### Citizen science and complaint handling

Engaging the general public through citizen science, can promote knowledge about the environment and help the authorities in their work. No online information could be found about the use of citizen science in Greece.

The availability of clear online information about how to make a complaint is an indicator of how responsive authorities are to complaints from the public. The government does not have a dedicated website which provides information on how to file environmental complaints. In addition, the complaint-handling mechanism is fragmented and it is difficult for citizens to know whom to address, although some individual authorities do provide information.

#### **Enforcement**

When monitoring identifies problems, a range of responses may be appropriate. The Hellenic Environmental Inspectorate's annual reports include data on the outcomes/results of inspections, any significant fines imposed. However, wider information on the prosecution of environmental crimes and on the follow-up to cross-compliance breaches on nitrates and nature is lacking.

Tackling waste, wildlife crimes and other environmental offences is especially challenging. It requires close cooperation and coordination arrangements between inspectors, customs authorities, police and prosecutors. Although Greek law gives inspectors, police and prosecutors a potential role in combating environmental crime, there is no information available on the practical arrangements for their cooperation and coordination.

## **Environmental liability**

The Environmental Liability Directive (ELD) establishes a framework based on the 'polluter pays' principle to prevent and remedy environmental damage. The 2017

<sup>&</sup>lt;sup>149</sup> European Commission, INSPIRE.

<sup>&</sup>lt;sup>150</sup> The concept is explained in detail in the Communication on 'EU actions to improve environmental compliance and governance' <u>COM(2018)10</u> and the related Commission Staff Working Document, <u>SWD(2018)10</u>.

 $<sup>^{151}</sup>$  This EIR focuses on the help given to farmers to comply with nature and nitrates legislation.

 <sup>152</sup> This EIR focuses on inspections of major industrial installations.
 153 This EIR focuses on the availability of enforcement data and coordination between authorities to tackle environmental crime.

<sup>&</sup>lt;sup>154</sup> The Environmental Liability Directive 2004/35/EC, creates the framework

<sup>&</sup>lt;sup>155</sup> Article 23, Industrial Emissions Directive, <u>2010/75/EU</u>.

EIR focused on gathering better information on environmental damage, on financial security and guidance. The Commission is still collecting evidence on the progress made.

#### 2019 priority actions

- Better inform the public about ensuring compliance, monitoring and enforcement. At a minimum this should involve: (i) ensuring that practical information for Greek farmers on how to comply with obligations on nitrates and nature is available online; and (ii) providing better online information to citizens on where and how to submit environmental complaints;
- Publish more information on the outcomes of criminal enforcement action and on the follow-up to detected cross-compliance breaches on nitrates and nature.
- Provide more information on the practical aspects of cooperation and coordination between inspectors, police, prosecutors and others to combat environmental crime.
- Improve financial security for liabilities and ELDguidance and publish information on environmental damage.

# Effectiveness of environmental administrations

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

#### Administrative capacity and quality

Central, regional and local administrations must have the ability to carry out their own tasks and work effectively with each other within a system of multi-level governance.

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 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.



The number of open infringement cases is very high (23 infringement cases, of which 12 are at 258 stage and 11 are at 260 stage). 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 solid 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.

# **Coordination and integration**

As mentioned in the 2017 EIR, the transposition of the revised Environmental Impact Assessment (EIA) Directive<sup>156</sup> 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.

The Commission encourages the streamlining of environmental assessments to reduce duplication and avoid overlaps in environmental assessments for projects. Streamlining helps to reduce unnecessary administrative burden. It also accelerates decision making, without compromising the quality of the environmental assessment procedure 157. Greece has

<sup>156</sup> Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

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

started streamlining environmental assessments under the EIA Directive, the Habitats Directive and the Industrial Emissions Directive.

# Adaptability, reform dynamics and innovation (eGovernment)

Since 1 October 2010, all Ministries, administrations and public authorities must upload every administrative act - large or small, including appointment decisions, awards of grants, transfers of personnel, decisions on subsidies to citizens, etc., on 'http://diavgeia.gov.gr' website, through the 'Diavgeia' ('Clarity') transparency programme. Clarity is one of the Ministry of the Interior and Administrative Reconstruction's major transparency initiatives.

Recently introduced electronic services are used during the public consultation processes and for filing complaints. Examples of electronic services include: (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 (DER) platform; (iv) the website on approved environmental permits (AEPO); and (v) the Region of Attica's online platform for submitting complaints.

In the DESI Report 2018, Greece had a score of 40 out of 100 on digital public services, lower than the EU average of  $58^{158}$ .

#### **Enabling financing and effective use of funds**

Information on public funding opportunities to improve the environment is published on the 'green growth' section of the MoEE's website and on the financial tools webpage. Funding opportunities are also publicised on the Green Fund's and the NSRF's websites. Funding is applicable for all seven environment areas. Information on EU projects is also published in various places, such as the MoEE website, the Greek task force LIFE programme website and the Greek INTERREG website.

- Simplify environmental administrative procedures and improve cooperation between public authorities (at national, regional and local levels) involved in applying environmental policies.
- Greece can further improve its overall environmental governance (such as transparency, citizen engagement, compliance and enforcement, as well as administrative capacity and coordination).

#### **International agreements**

The EU Treaties require the EU environmental policy to promote measures at international level to deal with regional or worldwide environmental problems.

The EU is committed to strengthening environmental law and its implementation globally. It therefore continues to support the Global Pact for the Environment process, which was launched by the United Nations General Assembly in May 2018<sup>159</sup>. The EIR is one of the tools to ensure that the Member States set a good example by respecting European Union environmental policies and laws and international agreements.

Currently, Greece has signed but not yet ratified a number of treaties, namely:

- 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;
- three agreements under the Convention on Long-range Transboundary Air Pollution<sup>160</sup>;
- the Kiev protocol on Pollutant Release and Transfer Register;
- the African-Eurasian Migratory Water bird Agreement; and
- the Protocol on Strategic Environmental Assessment to the Espoo Convention.

Moreover, Greece has not signed or ratified the International Convention for the Regulation of Whaling.

Forests: EU Timber Regulation (EUTR)<sup>161</sup>/ Forest Law Enforcement, Governance and Trade (FLEGT) Regulation<sup>162</sup>

<sup>2019</sup> priority actions

<sup>&</sup>lt;sup>158</sup> European Commission, <u>Digital Economy and Society Index Report</u> 2018, <u>Digital Public Services</u>.

<sup>159</sup> UN General Assembly Resolution 72/277 and Organizational session of the ad hoc open-ended working group.

<sup>&</sup>lt;sup>160</sup>Namely: the Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone; the Persistent Organic Pollutants Protocol; and the Heavy Metals Protocol.

Between March 2015 and February 2017, Greece carried out 88 % of the 237 checks that were planned for operators of domestic timber, and 85 % of the 86 checks planned for operators importing timber. This is relatively low when compared to the estimated 1 930 Greek operators placing domestic timber on the EU market and the 604 importers of timber. Although in Greece infringements of the EUTR are punishable by imprisonment, with a potential 10 year prison sentence for individuals transporting illegal timber, no such penalties have been issued to date against operators that breach the rules.

On cooperation (Article 12 of the EUTR), Greece reports to have collaborated both with its competent authorities and with EU institutions. It currently participates in the Mediterranean network on EUTR implementation.

Experts from the EUTR competent authority participated in a TAIEX-EIR Peer 2 Peer workshop to strengthen cooperation among the competent authorities from eight Mediterranean EU countries. The aim was to improve and harmonise the implementation of the EUTR in the Mediterranean region. Experts from the Netherlands and Denmark shared their experiences from the Nordic-Baltic network of EUTR competent authorities.

Genetic resources: Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising (ABS)<sup>163</sup>

Despite the provisions of the EU ABS Regulation, which transposes the required compliance measures under the Nagoya Protocol into EU law, Greece has still not appointed competent authorities for genetic resources. Furthermore, it has not laid down rules for penalties or submitted the mandatory reports.

International wildlife trade: the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)<sup>164</sup>

In line with the obligations laid down in the Basic Regulation<sup>165</sup> which transposes the major obligations of

<sup>161</sup> Regulation (EU) No 995/2010 of the European Parliament and of the Council of 20 October 2010

the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) into EU law, Greece has established relevant national authorities and is processing (requests for) import, (re-) export and intra-EU trade documents on a regular basis.

Reports on seizures of illegal wildlife shipments (in particular those reported every 6 months to TRAFFIC under its contract with the Commission, and those exchanged through the EU-TWIX platform), show the activity of customs authorities. To ensure the action plan is fully implemented, Greece has published national guidelines to help enforcement officers with their checks, especially with identifying protected species.

#### 2019 priority action

 Increase efforts to sign and ratify the remaining relevant multilateral environmental agreements.

# Sustainable development and the implementation of the UN SDGs

Sustainable development links environmental, social and economic policies in a coherent framework and therefore helps to implement environmental legislation and policies.

The first National Sustainable Development Strategy (NSDS) was adopted by the Council of Ministers in 2002. In 2010, the "Program of Development Interventions for the Real Economy" was elaborated, aligned with the EU "Europe 2020" Strategy, with a focus on resource efficiency and the shift to a low carbon economy that served, until 2013, as the country's strategic reference for sustainable development, but not as an NSDS.

Since December 2016, with regard to the SDGs implementation at national level, the competent central authority for the coordination and monitoring of the implementation of the SDGs is the Office of Coordination, Institutional, International and European Affairs of the General Secretariat of the Government (GSG) (as defined in Article 43 of Law 4440/2016). An active Interministerial Coordination Network for the SDGs has been re-establish under the coordination of the GSG which meets rather frequently contributing thus to horizontal and vertical integration of the SDGs across policy-making activities of all line Ministries.

Greece presented for the first time its National Voluntary review of the implementation of the SDGs at the UN HLPF in July 2018<sup>166</sup>.

The 2018 VNR report of Greece covers all 17 Goals through eight National Priorities for adapting the SDGs to

<sup>&</sup>lt;sup>162</sup> Regulation (EC) No 2173/2005 of 20 December 2005 on the establishment of a FLEGT licensing scheme for imports of timber into the European Community.

<sup>&</sup>lt;sup>163</sup> Regulation (EU) No 511/2014 of the European Parliament and of the Council of 16 April 2014 on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilisation in the Union Text with EEA relevance.

<sup>&</sup>lt;sup>164</sup> The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

 $<sup>^{165}</sup>$  Council Regulation (EC) No 338/97 on the protection of species of wild fauna and flora by regulating trade therein.

<sup>&</sup>lt;sup>166</sup>The Hellenic Republic, <u>National review on the implementation of the 2030 agenda for sustainable development</u>

national needs and circumstances, also in line with the recently adopted National Growth Strategy:

- Fostering a competitive, innovative and sustainable economic growth (linked to SDG 9)
- Promoting full employment and decent work for all (linked to SDG 8)
- Addressing poverty and social exclusion, and providing universal access to quality health care services (linked to SDGs 1, 2, 3)
- Reducing social and regional inequalities and ensuring equal opportunities for all (linked to SDGs 5, 10)
- Providing high-quality and inclusive education (linked to SDG 4)
- Strengthening the protection and sustainable management of natural capital as a base for social prosperity and transition to a low-carbon economy (linked to SDGs 6, 7, 11, 12, 13, 14, 15)
- Building effective, accountable and transparent institutions (linked to SDGs 16, 17)
- Enhancing open, participatory, democratic process and promoting partnerships (linked to SDGs 16, 17)

These eight overarching National Priorities have been defined in an open dialogue within all government units and with a wide array of stakeholders, through an indepth mapping exercise carried out in 2017.

With regard to data and indicators for the monitoring of the SDGs implementation, the Hellenic Statistical Authority (ELSTAT) as coordinator of the Hellenic Statistical System (ELSS) is responsible for the production of official statistics in Greece in this regard. As a national set of indicators particularly for the implementation of the SDGs has not yet been developed, the national statistical Annex of the VNR Report of Greece, is based on the 100 indicators (from the overall 232 indicators of the global SDG indicators' framework) measured by Eurostat (Sustainable Development in the European Union: Monitoring Report on Progress towards the SDGs in an EU context, Eurostat, November 2017) presenting the most relevant ones for Greece.

With regard to stakeholders' involvement, the GSG encourages and facilitates consultation with multiple stakeholders actively engaged the in SDGs implementation process, including regional and local authorities. In particular, an ongoing dialogue is taking place with some of the major national stakeholders, through the platform provided by the Economic and Social Council of Greece (ESC), the constitutionally recognized institution for conducting social dialogue in Greece. The ESC is working, following the model of the European Economic and Social Committee (EESC), on the basis of a tripartite structure representing the interests of three main groups involved, directly and indirectly, in achieving the SDGs at different levels: (i) employersentrepreneurs; (ii) public and private sector employees; and (iii) other categories of interests groups such as farmers, self-employed people, professionals, consumers, environmental agencies, disabled people's confederation, gender equality and multi-child associations, and regional and local government.